H.012232/3:
Dijon Extension Traffic Study
(LA 3064 to LA 1248)

Final Report

Prepared for:
Louisiana Department of
Transportation and Development

Prepared by:
Stantec Consulting Services Inc.

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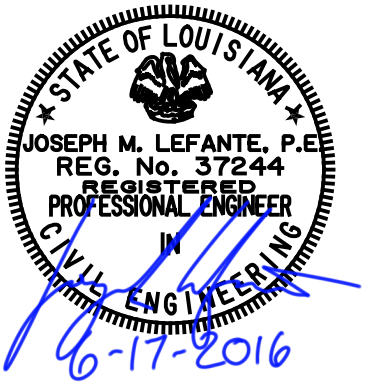

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Executive Summary

The purpose of this report is to determine the impact that a proposed 4-lane connector road—referred to as Dijon Extension throughout the report—between Essen Lane (LA 3064) and Bluebonnet Boulevard (LA 1248) might have on the surrounding roadway network with regard to traffic and safety operations. The purpose and need of this proposed roadway is to provide additional connectivity between Essen Lane and Bluebonnet Boulevard to help create a stronger street grid in a currently heavily congested area as well as provide additional access to future medical developments in the area. Improved access and connectivity will be further facilitated by the proposed Mancuso Lane Extension and Midway Boulevard, which would run perpendicular to Dijon Extension and provide connectivity from Dijon Extension to Picardy Avenue. Furthermore, Dijon Extension has been identified in the Baton Rouge Major Street Plan as a potential connection from Perkins Road west of Essen Lane to Bluebonnet Boulevard.

The Dijon Drive Extension project will be constructed in two phases and, when complete, will provide a 4-lane connection between Essen Lane (LA 3064) and Bluebonnet Boulevard (LA 1248). Phase 1 of the project consists of the portion from Essen Lane to just west of the new Midway Boulevard, and includes construction of a new extension of Mancuso Lane between Summa Avenue and Dijon Drive Extension. Phase 2 includes construction of an additional new roadway—Midway Boulevard—connecting Dijon Drive Extension, Summa Avenue, and Picardy Avenue, and extends Dijon Drive to Bluebonnet Boulevard.

In order to assess comprehensive impacts on the signalized corridors along Essen Lane and Bluebonnet Boulevard, the study limits extend from the Perkins Road to the I-12 eastbound off-ramp on Essen Lane and from Perkins Road to Oliphant Road on Bluebonnet Boulevard.

Peak hour traffic models were developed using Synchro 8 for the Existing, No Build, Phase 1, and Build conditions along Essen Lane and Bluebonnet Boulevard.

The results of the traffic models confirm that the Dijon Extension project will mainly provide additional circulation for traffic accessing medical sites that are anticipated to be built under the No Build scenario. The results show that most intersections outside of the Dijon Drive Extension termini experience neither a negative nor positive impact by the implementation of Dijon Drive Extension.

One exception is the Bluebonnet at I-10 interchange. There is an existing safety concern at this location for southbound movements between the I-10 eastbound off-ramp and the Mall Drive 1 / Future Dijon Drive Extension driveway due to the close spacing of the two interchanges. A proposed improvement that would be included in the Dijon Drive Extension project would be to replace the channelized right turn from the eastbound off-ramp to southbound Bluebonnet Boulevard with two signalized right turn lanes. This would eliminate the weaving condition in the southbound direction and result in safety benefits.

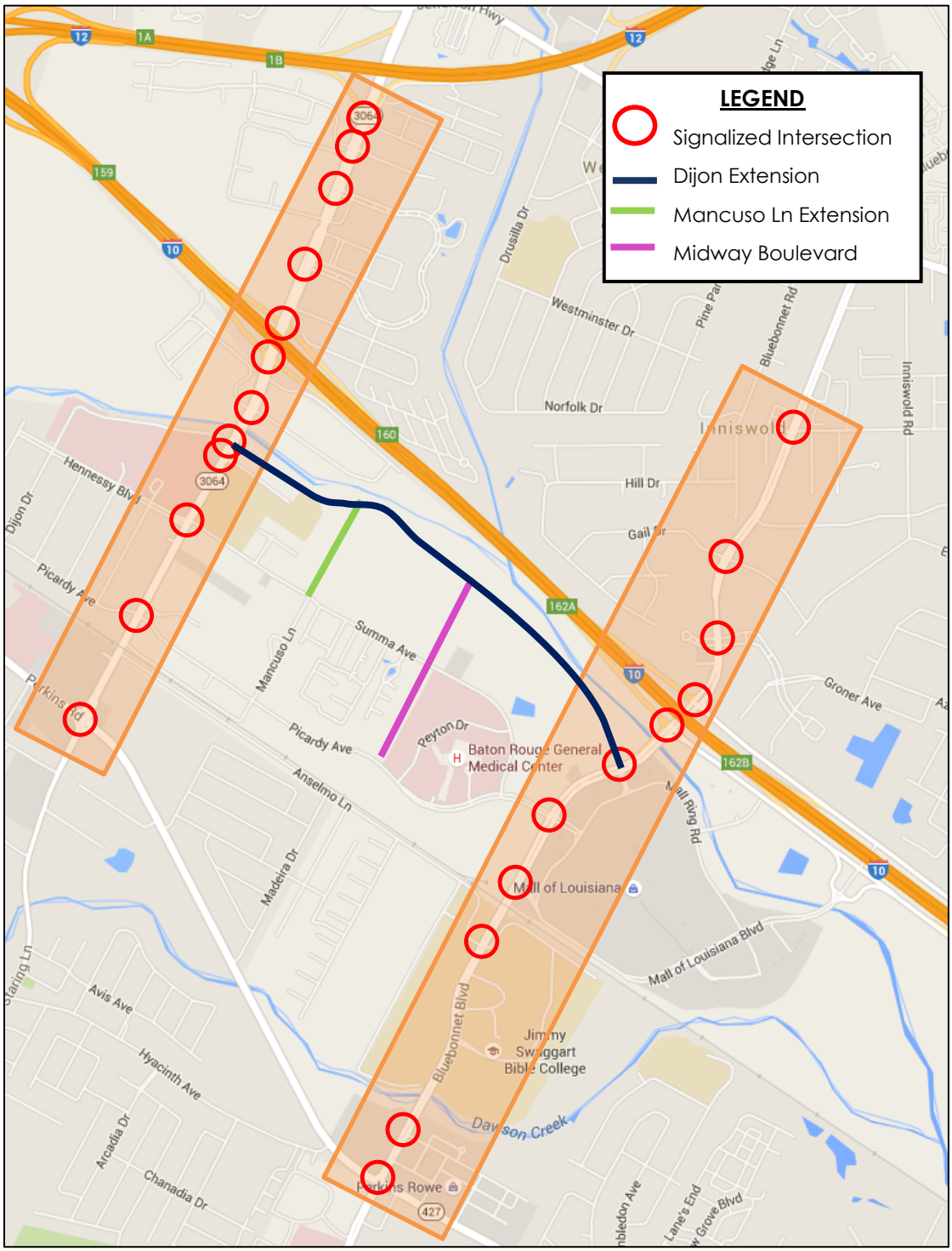
In addition to this change, it is also recommended to use the existing southbound Bluebonnet Boulevard shoulder to add an additional lane which could be used to create a new southbound left turn lane. The new cross-section would be two southbound thru lanes and two southbound left turn lanes. On the north side of the interchange, the southbound right turn onto the westbound on-ramp would become a shared thru/right turn lane. This will require some modifications to the existing pork chop island to accommodate the new thru movement. On the south side of the interchange, the two thru lanes would line up with the outside lanes headed southbound down Bluebonnet. This change is possible due to the signalization of the eastbound right turn movement. Lastly, the creation of dual southbound left turn lanes would require the existing northbound right to operate as a yield condition, whereas right now it has its own add lane on the eastbound frontage road.

At the Dijon Drive Extension termini locations, there are some increases in queue lengths and vehicle delay during the AM and PM peak periods compared to the No Build scenario. While these operational degradations may exist, they are outweighed by the potential significant safety and access improvements possible through the deployment of Dijon Drive Extension along with operational improvements at the Bluebonnet Boulevard and I-10 interchange.

1.0 INTRODUCTION

The purpose of this report is to determine the impact that a proposed 4-lane connector road—referred to as Dijon Extension throughout the report—between Essen Lane (LA 3064) and Bluebonnet Boulevard (LA 1248) might have on the surrounding roadway network with regard to traffic and safety operations. The purpose and need of this proposed roadway is to provide additional connectivity between Essen Lane and Bluebonnet Boulevard to help create a stronger street grid in a currently heavily congested area as well as provide additional access to future medical developments in the area. Improved access and connectivity will be further facilitated by the proposed Mancuso Lane Extension and Midway Boulevard, which would run perpendicular to Dijon Extension and provide connectivity from Dijon Extension to Picardy Avenue. Furthermore, Dijon Extension has been identified in the Baton Rouge Major Street Plan as a potential connection from Perkins Road west of Essen Lane to Bluebonnet Boulevard. In order to assess comprehensive impacts on the signalized corridors along Essen Lane and Bluebonnet Boulevard, the study limits extend from the Perkins Road to the I-12 eastbound off-ramp on Essen Lane and from Perkins Road to Oliphant Road on Bluebonnet Boulevard. The study areas are highlighted in **Figure 1** on the following page with the proposed Dijon Extension shown in dark blue, Mancuso Lane Extension shown in green, and Midway Boulevard shown in violet.

Figure 1: Vicinity Map



2.0 EXISTING CONDITIONS

2.1 LIMITS AND DESCRIPTION OF STUDY AREA

The following is a brief description of some of the major routes within the study area.

Essen Lane (LA 3064)

Essen Lane is currently a six-lane principal arterial with two lanes northbound, three lanes southbound, and a two-way left turn lane between Perkins Road and I-10. However, the roadway is about to be widened to a seven lane cross-section, adding an additional northbound lane between Perkins Road and I-10. Between I-10 and I-12, the cross section consists of three lanes northbound and two lanes southbound with a raised median. This roadway connects central Baton Rouge to southern Baton Rouge and provides access to many large office buildings as well as Our Lady of the Lake Regional Medical Center. Other land uses found on the studied section of Essen Lane consist of retail, restaurants, and apartments. The posted speed limit is 45 miles per hour.

Bluebonnet Boulevard (LA 1248)

Bluebonnet Boulevard is a principal arterial with varying cross sections that connects southern Baton Rouge to eastern Baton Rouge. The most-typical cross section of Bluebonnet Boulevard within the study area consists of two lanes northbound and two lanes southbound with a raised median. Bluebonnet Boulevard provides access to significant commercial development including the Mall of Louisiana and Perkins Road along with hotels, restaurants, and small office parks. The posted speed limit is 40 miles per hour.

Summa Avenue

Summa Avenue is a major collector with a two-lane cross-section in the western portion of the study area and a three-lane cross-section in the eastern portion of the study area. It runs parallel to Interstate 10 and provides connection between Our Lady of the Lake Regional Medical Center and Baton Rouge General Hospital. Summa Avenue primarily provides connection to Essen Lane for medium-density residential, medical office buildings, and the above referenced hospitals. The posted speed limit is 30 miles per hour.

Picardy Avenue

Picardy Avenue is a major collector with a two-lane cross-section in the western portion of the study area and a four-lane divided cross-section in the eastern portion of the study area. It runs parallel to Summa Avenue and provides connection between Essen Lane and Bluebonnet Boulevard. Land uses serviced by Picardy Avenue include Baton Rouge General Hospital and various medical office buildings. The posted speed limit is 35 miles per hour.

Perkins Road (LA 427)

Perkins Road is a principal arterial with a five-lane cross-section consisting of two lanes in the eastbound direction, two lanes in the westbound direction, and a two-way left turn lane. It runs parallel to Interstate 10 and provides an alternate route to I-10 as well as access to many businesses and residential neighborhoods between Essen Lane and Bluebonnet Boulevard. The posted speed limit is 45 miles per hour.

Interstate 10

Interstate 10 is a 6-lane interstate highway through the study area that provides a critical connection between Baton Rouge and New Orleans. It also helps provide access between downtown Baton Rouge and suburbs in southeast Baton Rouge and Ascension Parish. There are auxiliary lanes in both the eastbound and westbound directions between the Essen Lane and Bluebonnet interchanges for a total of 8-lanes through that segment. The posted speed limit was recently increased from 60 miles per hour to 65 miles per hour.

2.2 TRAFFIC COUNTS

Stantec Consulting Services Inc. hired Southern Traffic Services to collect turning movement counts at selected intersections. Southern Traffic Services is aware of all of DOTD's best practices with regard to traffic data collection, which includes a queue count every 15 minutes. The queues were added to the 15-minute count data. The counts were performed on Thursday, October 8, 2015 between the times of 7:00 AM - 10:00 AM, 12:00 PM – 2:00 PM, and 3:00 PM – 6:00 PM. Additional counts were performed on Saturday, October 10, 2015 between the times of 12:30 PM – 2:30 PM. These count periods were decided on based on camera counts provided by Baton Rouge DPW at intersections along Bluebonnet Boulevard as seen in **Appendix A**. No counts were taken on holidays. Schools—including Louisiana State University—have been verified to be in session for all of the data collection dates.

Turning movement counts were collected at the following locations:

1. Bluebonnet Boulevard at Oliphant Road
2. Bluebonnet Boulevard at Gail Drive
3. Bluebonnet Boulevard at Blue Cross Parkway
4. Bluebonnet Boulevard at I-10 Westbound Ramps
5. Bluebonnet Boulevard at I-10 Eastbound Ramps
6. Bluebonnet Boulevard at N Mall Road
7. Bluebonnet Boulevard at Picardy Avenue
8. Bluebonnet Boulevard at Mall of Louisiana Avenue
9. Bluebonnet Boulevard at Anselmo Lane
10. Bluebonnet Boulevard at Perkins Rowe Avenue
11. Bluebonnet Boulevard at Perkins Road
12. Essen Lane at United Plaza Boulevard (north intersection)
13. Essen Lane at Scholar Drive / Archives Avenue
14. Essen Lane at I-12 Eastbound Off-Ramp

All of the collected counts are included in **Appendix B**.

2.3 FIELD OBSERVATIONS

Stantec performed field observations during traffic count collection on Thursday, October 8, 2015 and Saturday, October 10, 2015. The Bluebonnet Boulevard and Essen Lane corridors were each driven in the northbound and southbound directions during the peak periods. Video was captured via a camera mounted in the windshield that is being provided to verify and assist in visualizing our written observations. The recorded field observations are listed in **Appendix F**.

2.4 PEAK HOURS

The collected turning movement counts were compiled to determine the AM, Noon, PM, and Saturday peak hours within the study area. The results of the peak hour determination analysis can be found in **Figure 2 through Figure 5.**

Based on the count analysis, the AM, Noon, PM, and Saturday peak hours on Bluebonnet Boulevard were found to be 7:30-8:30 AM, 12:15-1:15 PM, 4:30-5:30 PM, and 12:45-1:45PM, respectively. The AM, Noon, PM, and Saturday peak hours on Essen Lane were found to be 7:15-8:15 AM, 12:00-1:00 PM, 4:30-5:30 PM, and 12:30-1:30PM, respectively. It should be noted that the although the turning movement counts revealed an AM peak hour of 7:15-8:15 on Essen Lane, the peak hour decided on for the previous Essen Lane Widening project was 7:30-8:30 AM. Because there are more data points pointing to a 7:30 AM peak hour (7 intersections in previous study versus 3 in this study), we are moving forward with 7:30 AM as the start of the morning peak hour for this project.

Based on the traffic count data collected, Essen Lane experiences less traffic during the weekend peak period compared to the weekday peak periods; therefore, Essen Lane will only be analyzed during the weekday peak periods as the traffic data does not justify analysis of the peak weekend period. Conversely, Bluebonnet Boulevard experiences similar traffic volumes during the weekend peak period to the weekday peak periods, so analysis will be performed on Bluebonnet Boulevard during the weekend peak period in addition to the weekday peak periods. The Essen Lane and Bluebonnet Boulevard turning movement counts based on the proposed peak hours can be found in **Appendix C** with the unmet demand for those intersections located in **Appendix D**. Traffic counts generated as part of the Essen Lane Widening project can be found in **Appendix E**.

Figure 2: 2015 Bluebonnet Boulevard Weekday Peak Hour Determinations

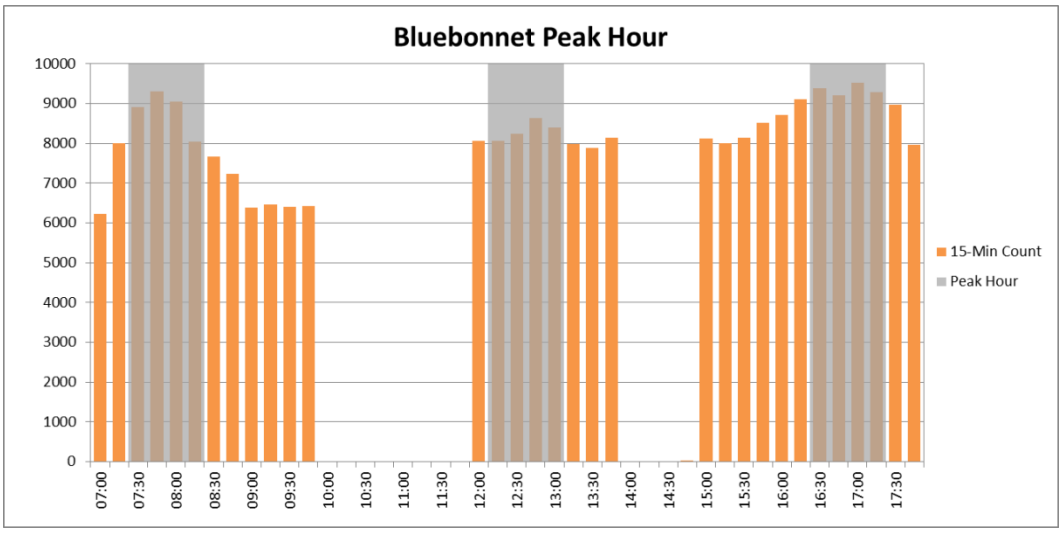


Figure 3: 2015 Essen Lane Weekday Peak Hour Determinations

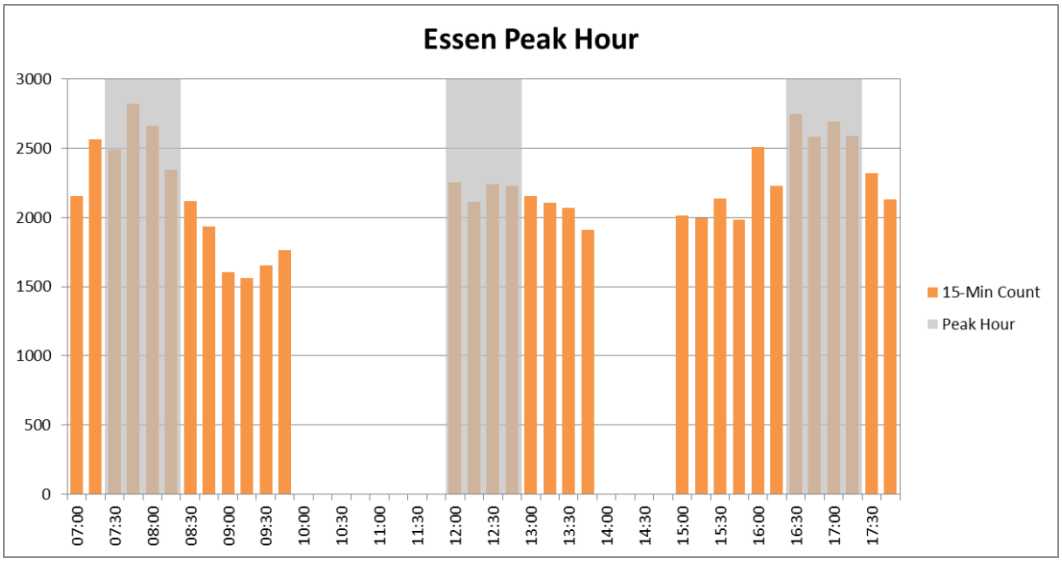


Figure 4: 2015 Bluebonnet Boulevard Saturday Peak Hour Determinations

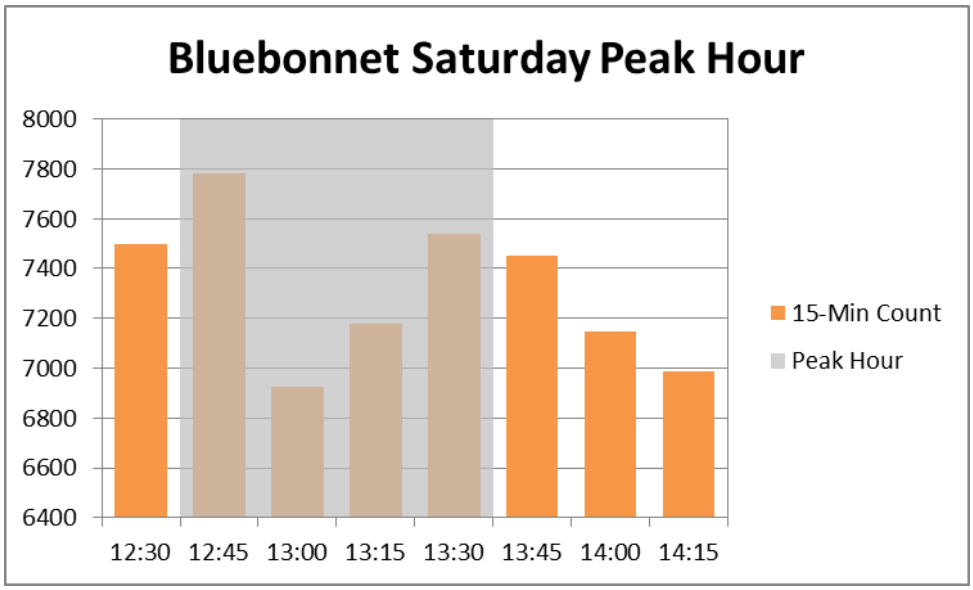
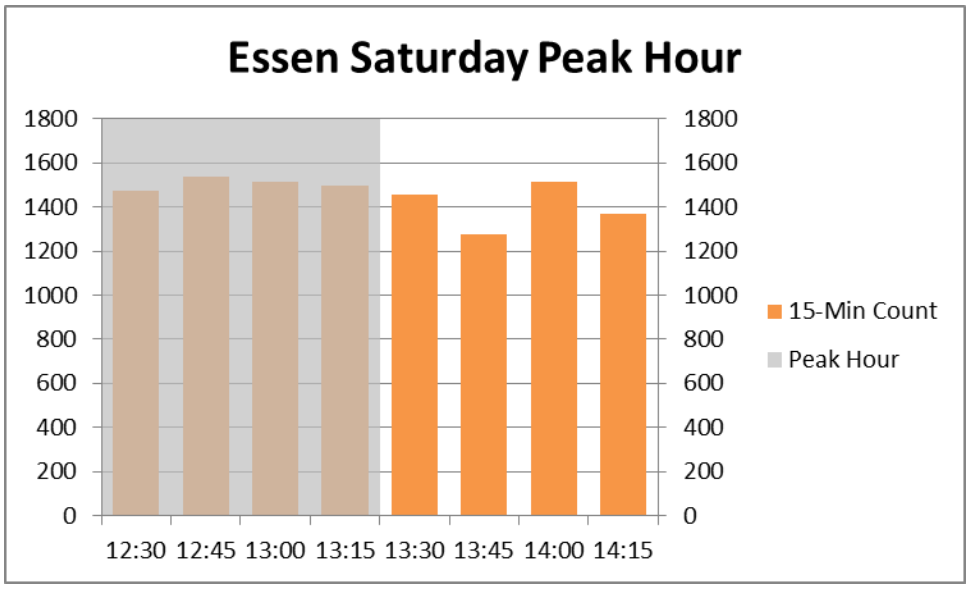


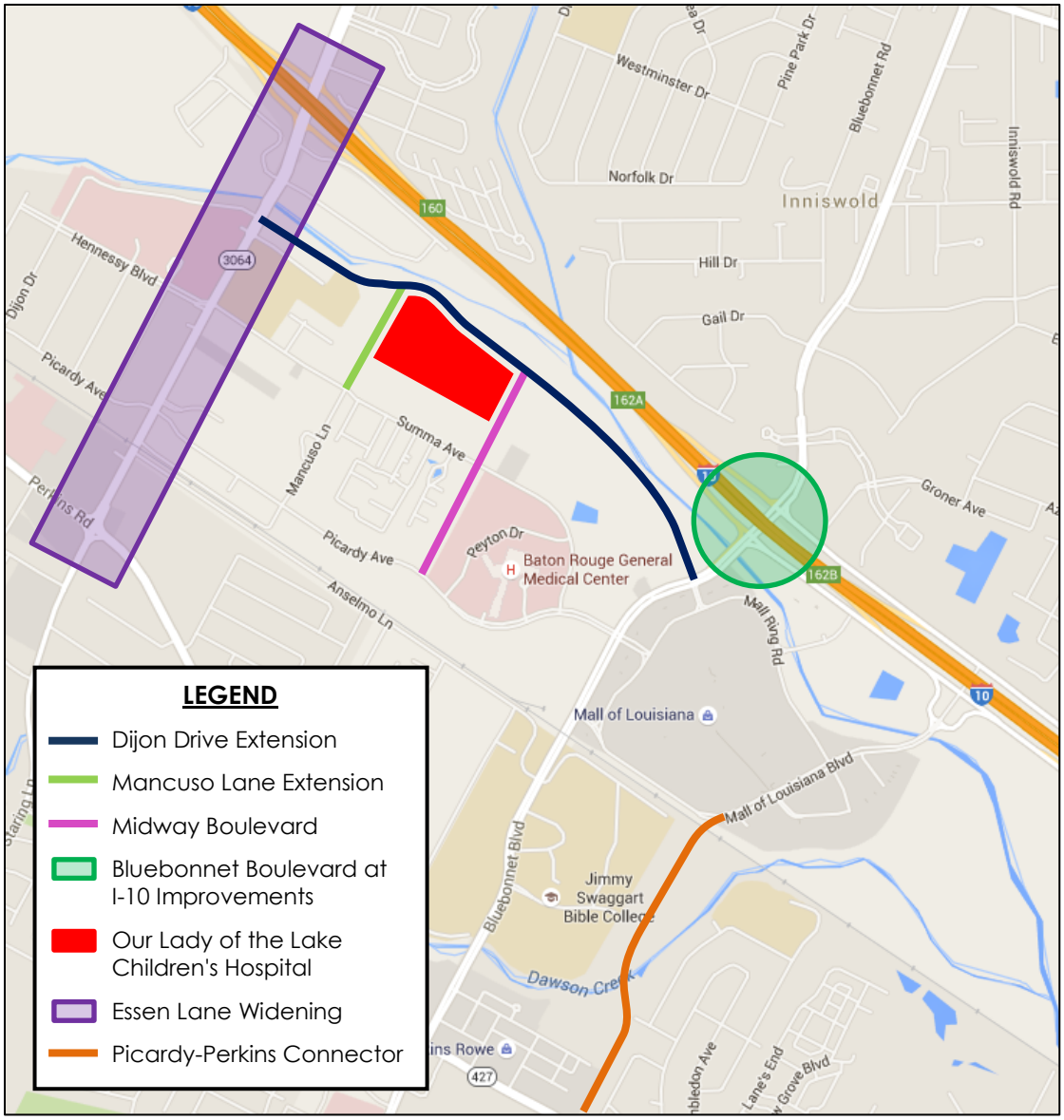
Figure 5: 2015 Essen Lane Saturday Peak Hour Determinations



3.0 FUTURE CONDITIONS

2017 has been chosen as the project implementation year while 2037 will serve as the 20-year design year. The following is a description of future projects that are anticipated to be completed by the design year and will be considered as part of the traffic study.

Figure 6: Future Conditions



3.1 DIJON DRIVE EXTENSION

The Dijon Drive Extension project will be constructed in two phases and, when complete, will provide a 4-lane connection between Essen Lane (LA 3064) and Bluebonnet Boulevard (LA 1248). Phase 1 of the project consists of the portion from Essen Lane to just west of the new Midway Boulevard. Phase 2 includes Midway Boulevard between Dijon Extension and Picardy Avenue, extends Dijon Extension to Bluebonnet Boulevard, and adds improvements at the Bluebonnet Boulevard and I-10 Interchange.

3.1.1 Mancuso Lane Extension

The Mancuso Lane Extension is needed to provide a secondary access point to the Our Lady of the Lake Children's Hospital and would consist of extending Mancuso Lane north to Dijon Extension. The roadway would be part of Phase 1 of the Dijon Extension project if it is implemented. If the Dijon Extension project is not implemented, the Mancuso Lane Extension will be constructed regardless to provide the needed access to the hospital. The cross-section will consist of one lane in each direction.

3.1.2 Midway Boulevard

Midway Boulevard is a proposed two lane roadway that would connect Picardy Avenue to Dijon Extension, further building upon the street grid within the study area. The roadway is currently planned as part of Phase 2 of the Dijon Extension project. There are two roundabouts being proposed as part of the Midway Boulevard alignment: one at its intersection with Picardy Avenue and the other at its intersection with Summa Avenue.

3.1.3 Bluebonnet Boulevard at Interstate 10 Improvements

There is currently a weaving issue along southbound Bluebonnet Boulevard between the Interstate 10 eastbound off-ramp and the Mall Drive 1 / future Dijon Drive Extension intersection. The intersection spacing is very short, requiring the use of physical barriers to prohibit drivers from exiting the Interstate and entering the Mall of Louisiana at Mall Drive 1. The current I-10 eastbound off-ramp geometry includes an uncontrolled right turn into a dedicated lane on southbound Bluebonnet Boulevard. Proposed improvements include protecting this right turn movement with signalized control, and increasing it to a dual lane right turn. This would provide safety and operational benefits along Bluebonnet Boulevard by allowing the removal of the physical barriers. In order to provide sufficient green time to the right turn movement to mitigate potential queueing on the off-ramp, additional geometric changes proposed at the interchange include widening southbound Bluebonnet Boulevard between the two ramp terminals to provide two southbound left turn lanes onto the Interstate 10 frontage road. The interchange improvements are currently planned as part of Phase 2 of the Dijon Extension project.

3.2 OUR LADY OF THE LAKE CHILDREN'S HOSPITAL

Our Lady of the Lake Children's Hospital is currently being planned on a large tract of land between Ward Creek and Summa Avenue, east of the Southeastern Louisiana Nursing School. The development is to consist of 100 hospital beds and roughly 95,000 square feet of medical offices. Access to the hospital from Essen Lane and Bluebonnet Boulevard would be provided by Summa Avenue and Margaret Ann Avenue if an alternative roadway is not built. The new Children's Hospital will be located along Phase 1 of the Dijon Drive Extension.

3.3 ESSEN LANE WIDENING

Currently, there is severe congestion during the afternoon peak period on Essen Lane between I-10 and Perkins Road. To help improve traffic flow and mitigate congestion, Essen Lane is to be widened from a six lane cross-section to a seven lane cross-section by 2017, adding an additional northbound thru lane. The bridge across Ward Creek is currently being widened in anticipation of the roadway project, and utilities along the corridor are being relocated.

Stantec performed the traffic study and design of the Essen Lane Widening project with Final Plans being submitted in 2014. As part of the traffic study, peak hour turning movement counts were obtained from a corridor study performed in 2011. Those counts were grown by 0.43% annum to the analysis year of 2013. In 2013, Stantec obtained unmet demand queue data along Essen Lane during the peak periods and added those volumes to the grown 2013 volumes.

3.4 PICARDY-PERKINS CONNECTOR

The Picardy-Perkins Connector is a roadway project planned by the City of Baton Rouge to provide a new connection between the Mall Ring Road near Picardy Avenue and Perkins Road near the Perkins Rowe development. This planned project will provide an alternate route to Bluebonnet Boulevard, and will connect to the Mall of Louisiana access to Interstate 10 between Bluebonnet Boulevard and Essen Lane. A Stage 0 study was previously developed for this project and has been used to help determine expected changes to the study area stemming from the implementation of this connector road.

4.0 SCENARIOS

There are four scenarios that have been analyzed as part of this study: Existing, No Build, Phase 1, and Build. The existing analysis year was chosen as 2015 while the implementation and design years were selected as 2017 and 2037, respectively. The details of each scenario, including relevant traffic volumes used for analysis, are presented in the following sections. We have provided a quick-reference guide in **Table 1** on the following page that details elements of each scenario such as which volumes and which planned improvements have been assumed for each scenario. Correspondingly, figure numbers have been included to match the figures discussed in the appendix to this report.

H.012232/3:
DIJON EXTENSION TRAFFIC STUDY
(LA 3064 TO LA 1248)

Scenarios
June 17, 2016

Table 1: Scenario Index

		ESSEN LANE						BLUEBONNET BOULEVARD				
		2015	2017			2037		2015	2017		2037	
		Existing	No Build	Phase 1	Build	No Build	Build	Existing	No Build	Build	No Build	Build
Traffic Volumes Components	Essen Counts	Figures 6-8	-	-	-	-	-	-	-	-	-	-
	Bluebonnet Counts	-	-	-	-	-	-	Figures 9-11	-	-	-	-
	Background Growth	-	Figures G6-G8	Figures G6-G8	Figures G6-G8	Figures G9-G11	Figures G9-G11	-	Figures G12-G14	Figures G12-G14	Figures G15-G17	Figures G15-G17
	Children's Hospital Distribution	-	Figures H1-H3	Figures H4-H6	Figures H7-H9	Figures H1-H3	Figures H7-H9	-	Figures H10-H12	Figures H13-H15	Figures H10-H12	Figures H13-H15
	Dijon Left Turns onto Essen Rerouting	-	Figure I1	Figure I1	Figure I1	Figure I2	Figure I2	-	-	-	-	-
	Picardy-Perkins Connector Redistribution	-	-	-	-	-	-	-	Figures J1-J3	Figures J1-J3	Figures J4-J6	Figures J4-J6
	Dijon Drive Extension Diverted Trips	-	-	Figures K5-K7	Figures K8-K10	-	Figures K11-K13	-	-	Figures K14-K16	-	Figures K17-K19
ANALYSIS VOLUMES		Figures 6-8	Figures 12-14	Figures 24-26	Figures 27-29	Figures 15-17	Figures 30-32	Figures 9-11	Figures 18-20	Figures 33-35	Figures 21-23	Figures 36-38
Included Improvements	Essen Lane Widening	-	X	X	X	X	X	N/A	N/A	N/A	N/A	N/A
	Essen at I-10 Interchange Improvements	-	X	X	X	X	X	N/A	N/A	N/A	N/A	N/A
	Picardy-Perkins Connector Redistribution	N/A	N/A	N/A	N/A	N/A	N/A	-	X	X	X	X
	Children's Hospital	-	X	X	X	X	X	-	X	X	X	X
	Dijon Drive Extension	-	-	Phase 1	Full Build	-	Full Build	-	-	Full Build	-	Full Build
	Relocated Signal at Essen and Margaret Ann	-	-	X	X	-	X	N/A	N/A	N/A	N/A	N/A
	Dual Eastbound Right Turn Lanes from I-10	N/A	N/A	N/A	N/A	N/A	N/A	-	-	X	-	X

Note: Figure numbering coincides with the Final Report dated May 24, 2016.

4.1 EXISTING SCENARIO

The Existing Scenario consists of the existing geometry as of September 2015. It should be noted that at that point, the I-10 interchange improvements at Essen Lane were not complete and there was construction taking place along Essen Lane to relocate utilities and widen the bridge across Ward Creek in preparation for the Essen Lane Widening Project. Therefore, the Essen Lane model for the Existing Scenario uses geometry that was in place prior to any changes due to construction. The balanced volumes for the 2015 Existing scenario can be found on the following pages with Essen Lane shown in **Figure 7 through Figure 9** and Bluebonnet Boulevard shown in **Figure 10 through Figure 12**.

4.2 NO BUILD SCENARIO

The No Build Scenario consists of the existing geometry with a few modifications to reflect expected changes along the Essen Lane and Bluebonnet Boulevard corridors. Along Essen Lane, the geometric changes include the interchange reconfiguration at I-10 where an additional left turn lane has been added northbound and southbound for a total of 2 in each direction along with the widening of Essen Lane to provide an additional lane northbound from Perkins Road to I-10. The change to volumes along Essen Lane stem from the implementation of the Our Lady of the Lake Children's Hospital, the re-routing of eastbound Dijon Left Turns onto northbound Essen Lane, and the employment of general background growth in the area. It is assumed that the hospital would be accessed via Margret Ann Avenue and Mancuso Lane Extension.

Within the Bluebonnet Boulevard vicinity, it is assumed that the Picardy-Perkins connector will be in place during the 2037 No Build Scenario, which will have an impact on the traffic volumes throughout the study area. Additional volume changes to Bluebonnet Boulevard include the inclusion of the Our Lady of the Lake Children's Hospital in 2017 and 2037 as well as general background growth in the area. The No Build volumes developed for the 2017 and 2037 analysis years are displayed in **Figure 13 through Figure 24** on the following pages.

Figure 7: Essen Lane 2015 Existing Peak Hour Volumes

Essen Lane Turning Movement Counts

AM: 7:30-8:30
Noon: 12:00-13:00
PM: 16:30-17:30

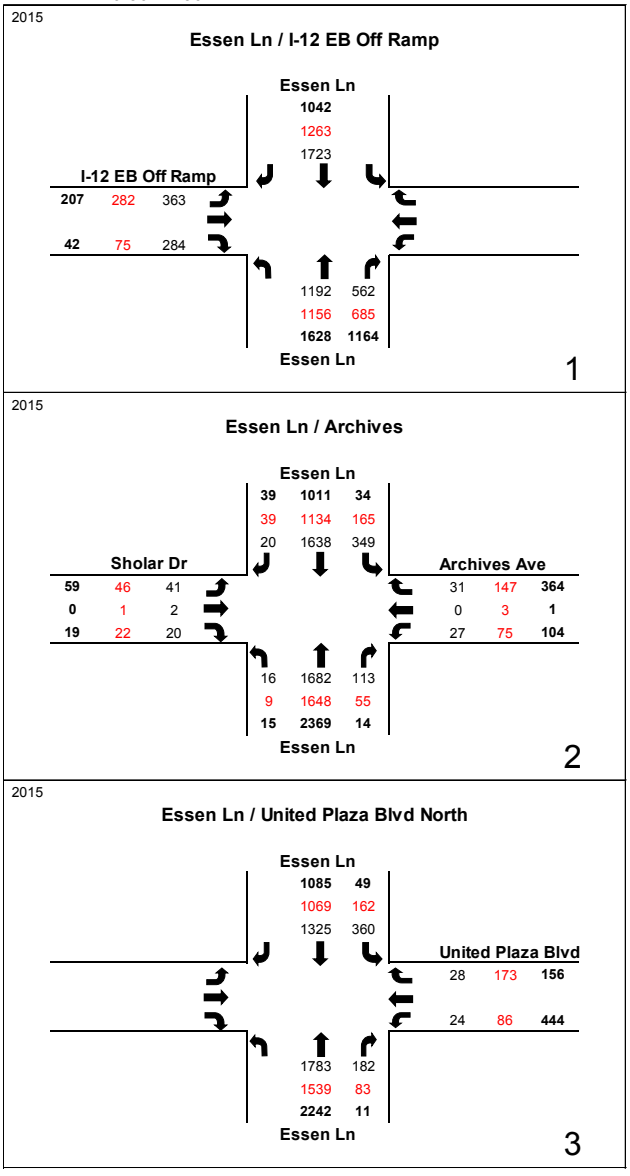


Figure 8: Essen Lane 2015 Existing Peak Hour Volumes Continued

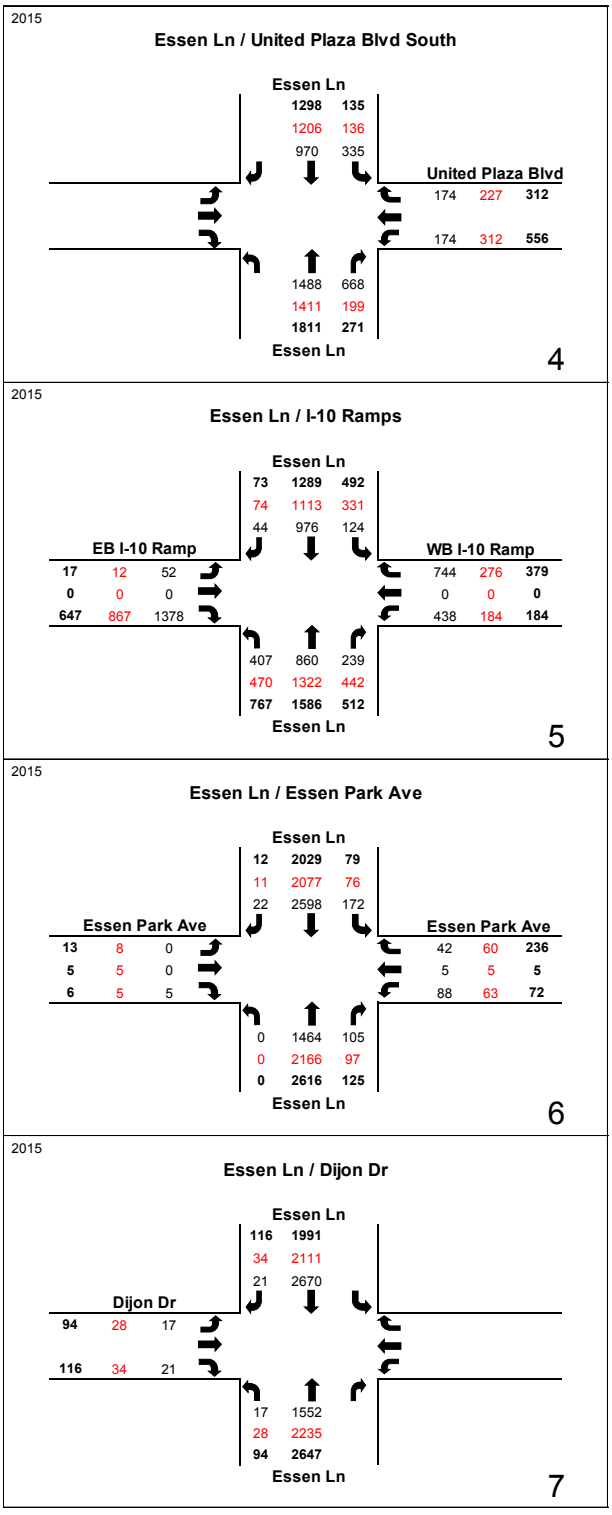


Figure 9: Essen Lane 2015 Existing Peak Hour Volumes Continued

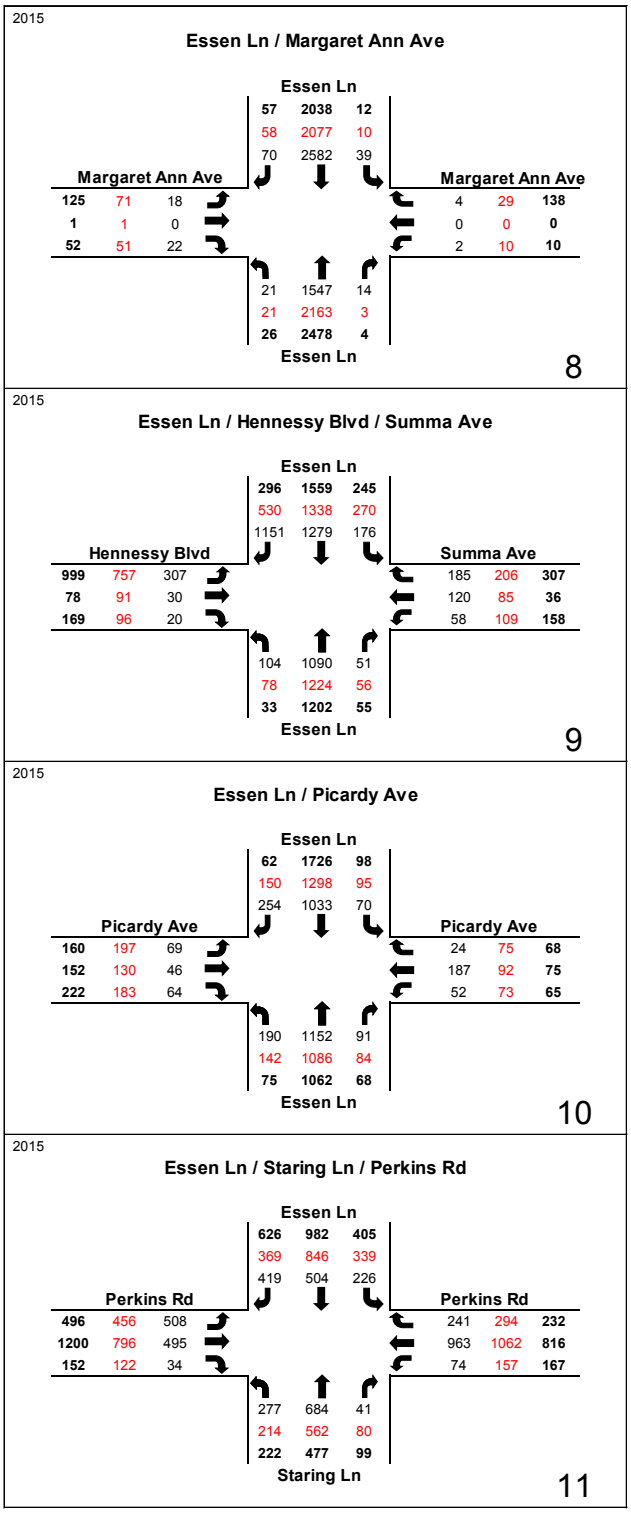


Figure 10: Bluebonnet Boulevard 2015 Existing Peak Hour Volumes

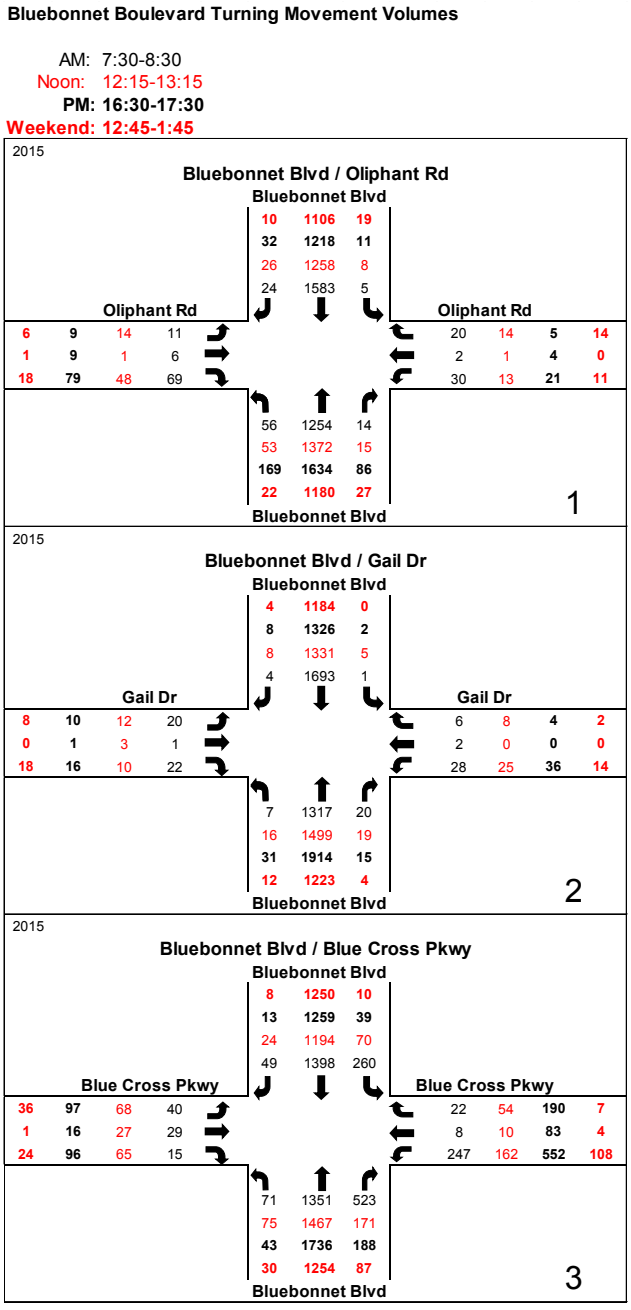


Figure 11: Bluebonnet Boulevard 2015 Existing Peak Hour Volumes Continued

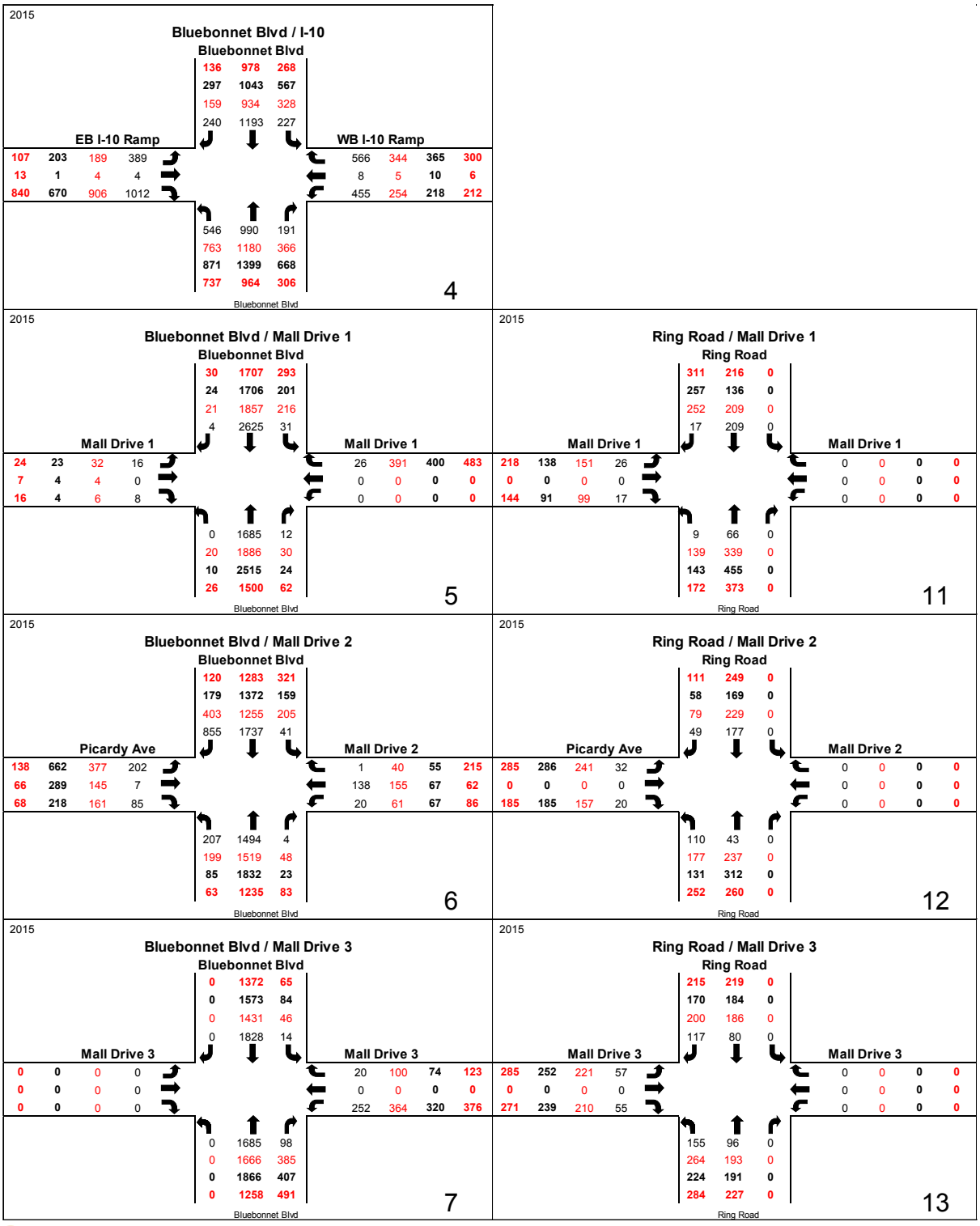


Figure 12: Bluebonnet Boulevard 2015 Existing Peak Hour Volumes Continued

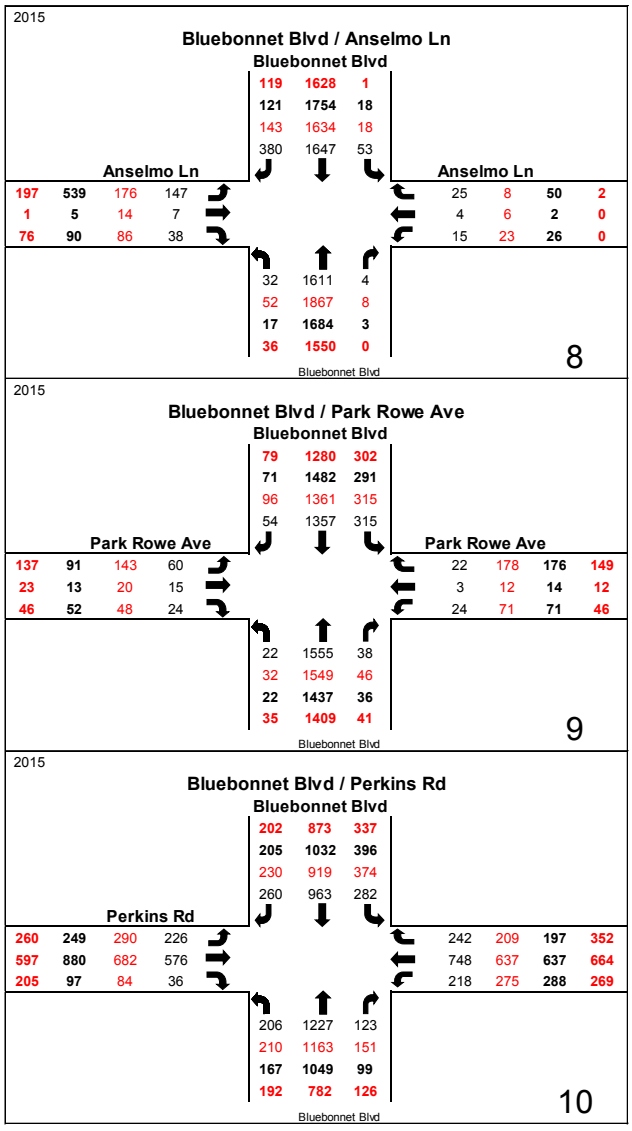


Figure 13: Essen Lane 2017 No Build Peak Hour Volumes

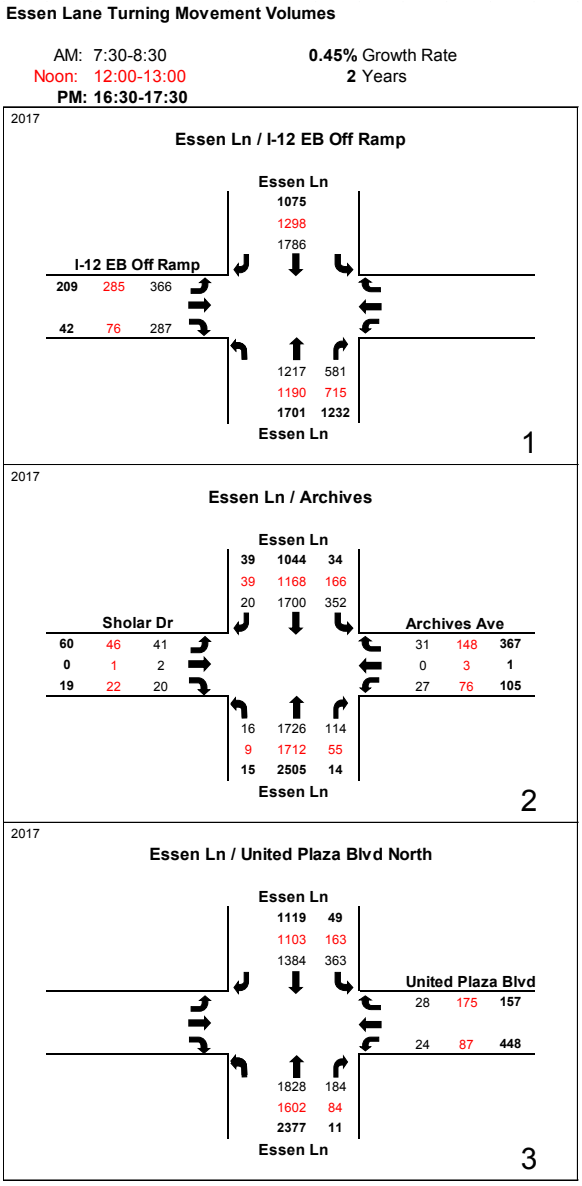


Figure 14: Essen Lane 2017 No Build Peak Hour Volumes

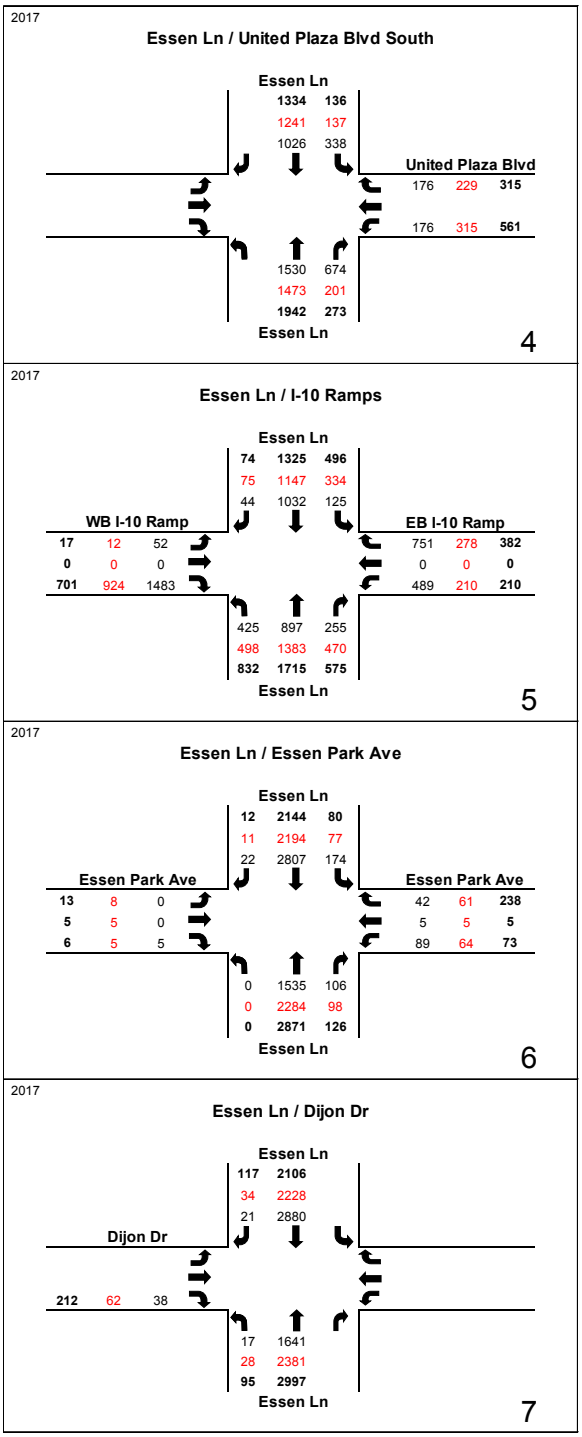


Figure 15: Essen Lane 2017 No Build Peak Hour Volumes

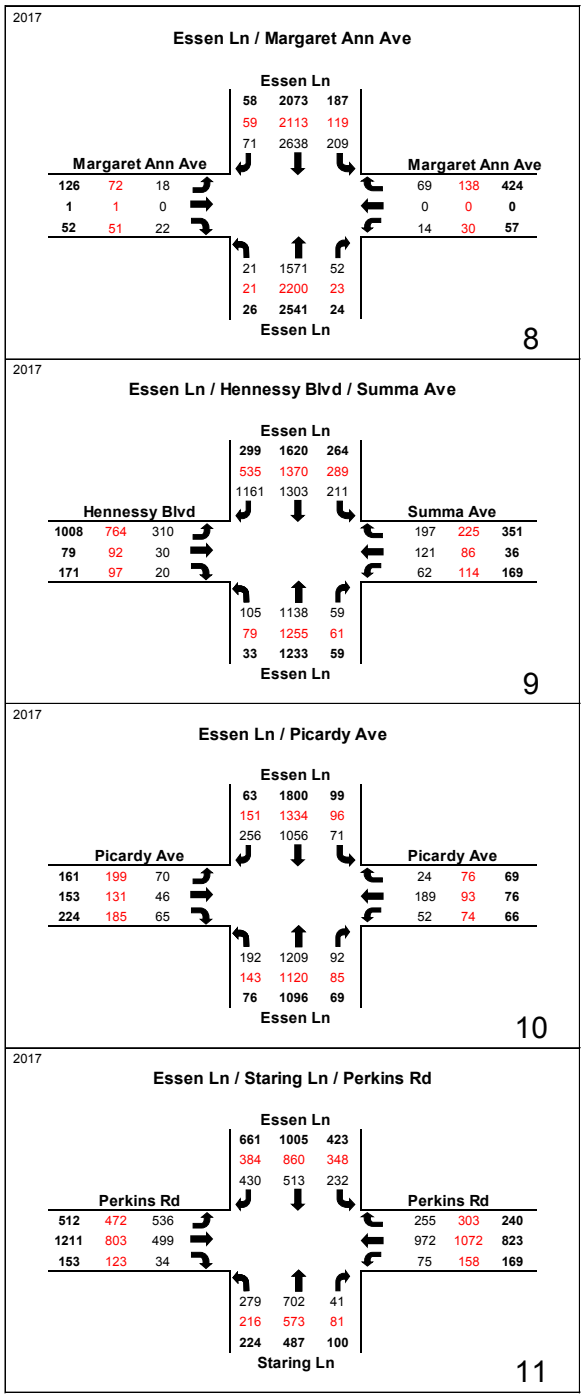


Figure 16: Essen Lane 2037 No Build Peak Hour Volumes

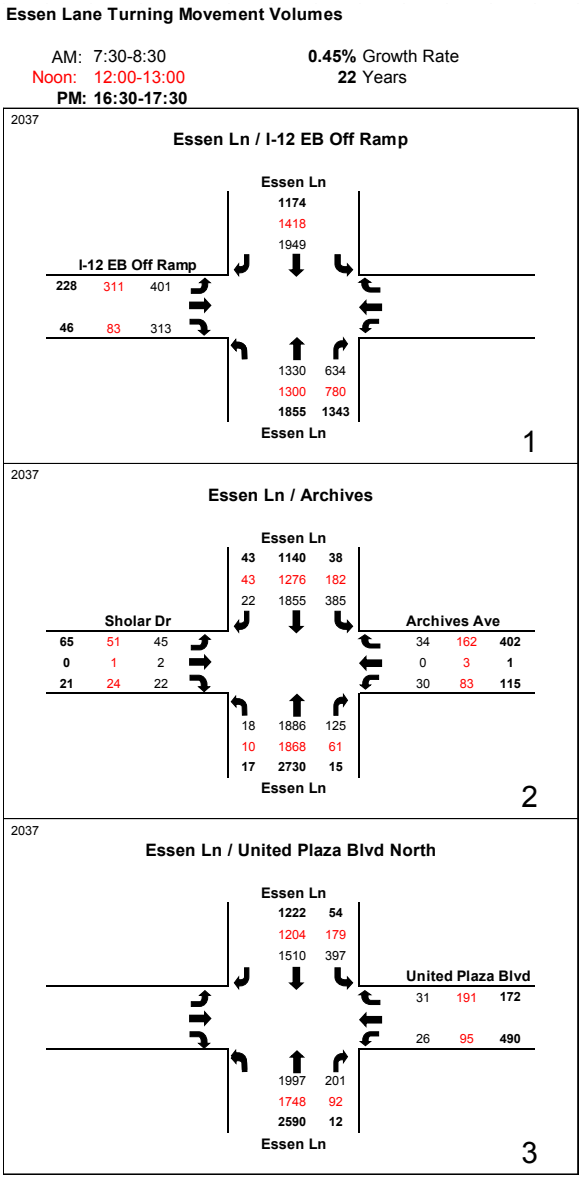


Figure 17: Essen Lane 2037 No Build Peak Hour Volumes

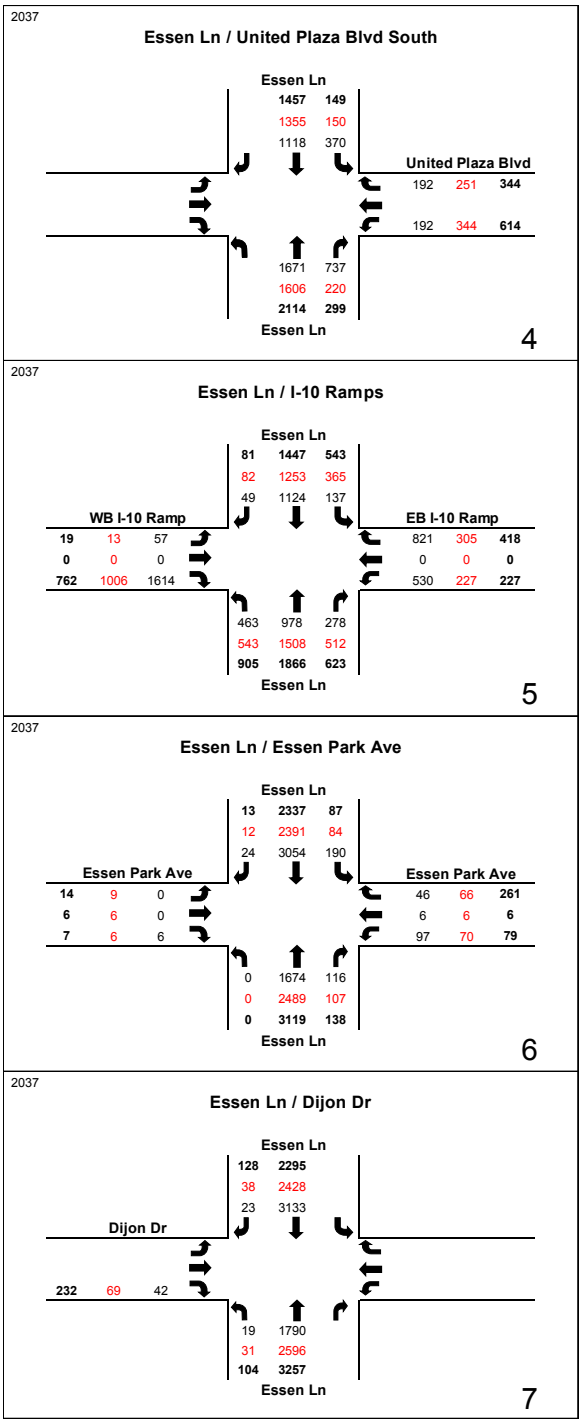


Figure 18: Essen Lane 2037 No Build Peak Hour Volumes

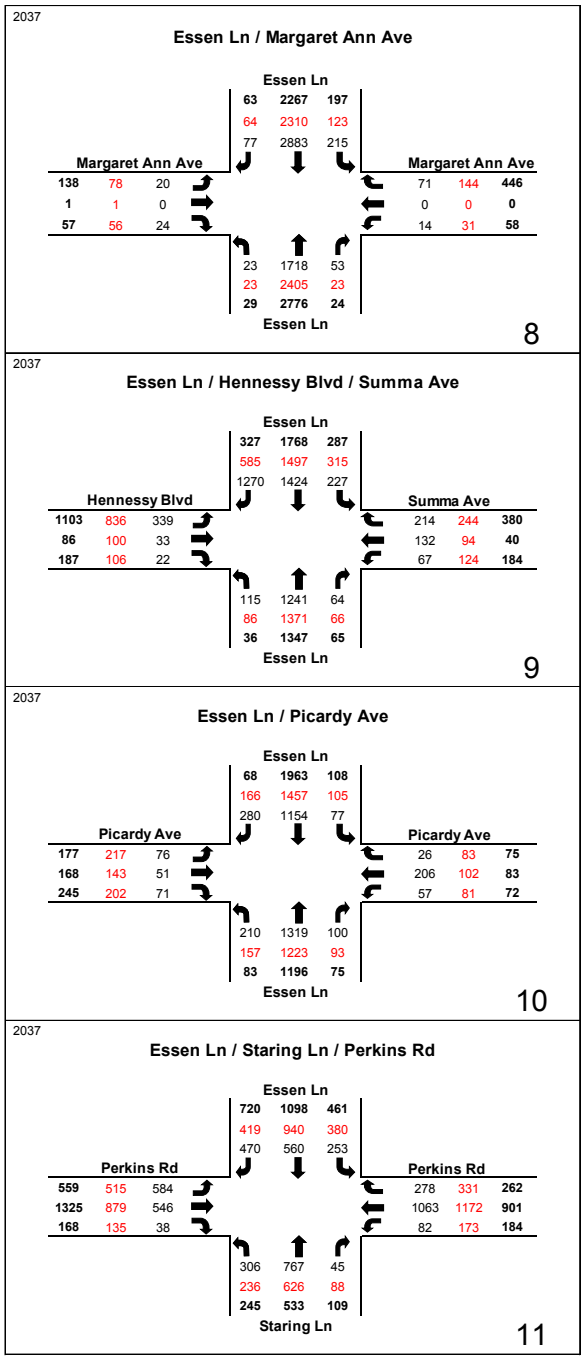


Figure 19: Bluebonnet Blvd 2017 No Build Peak Hour Volumes

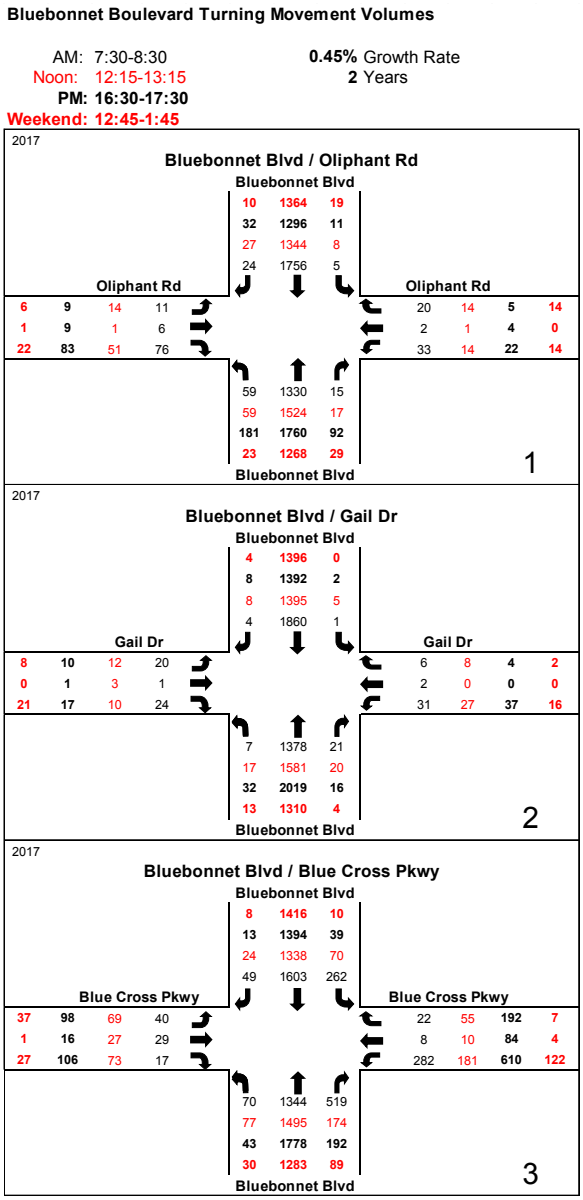


Figure 20: Bluebonnet Blvd 2017 No Build Peak Hour Volumes

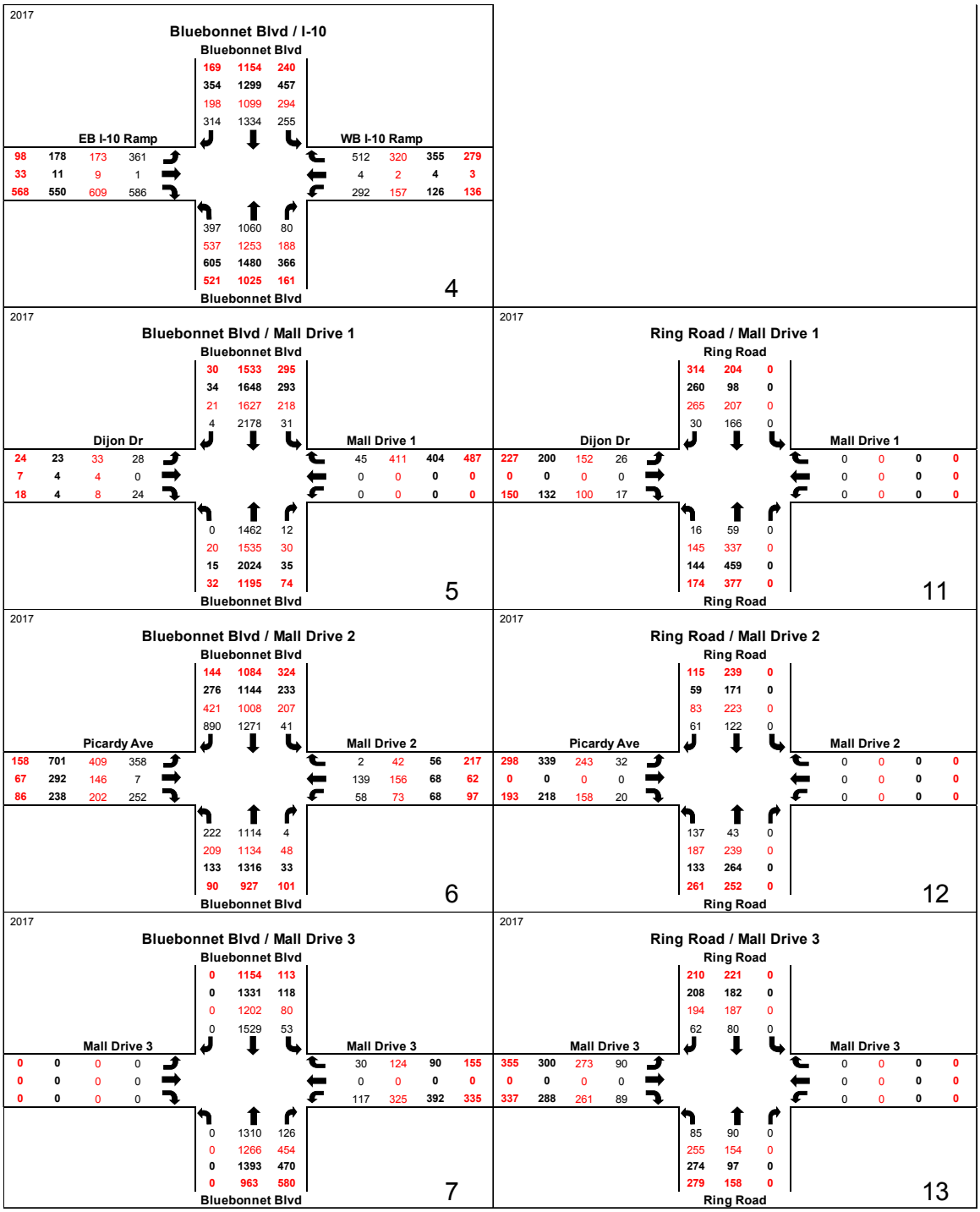


Figure 21: Bluebonnet Blvd 2017 No Build Peak Hour Volumes

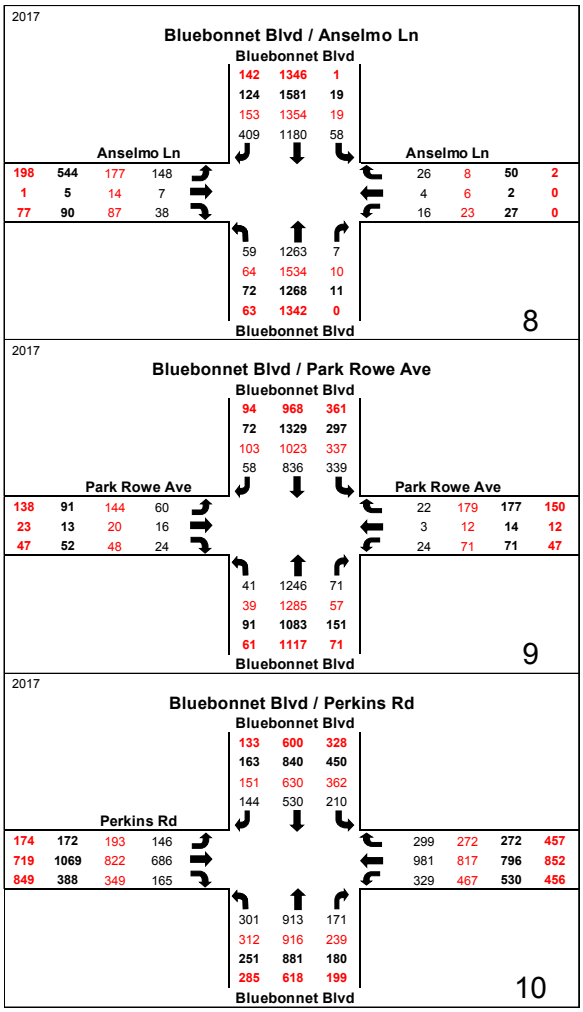


Figure 22: Bluebonnet Blvd 2037 No Build Peak Hour Volumes

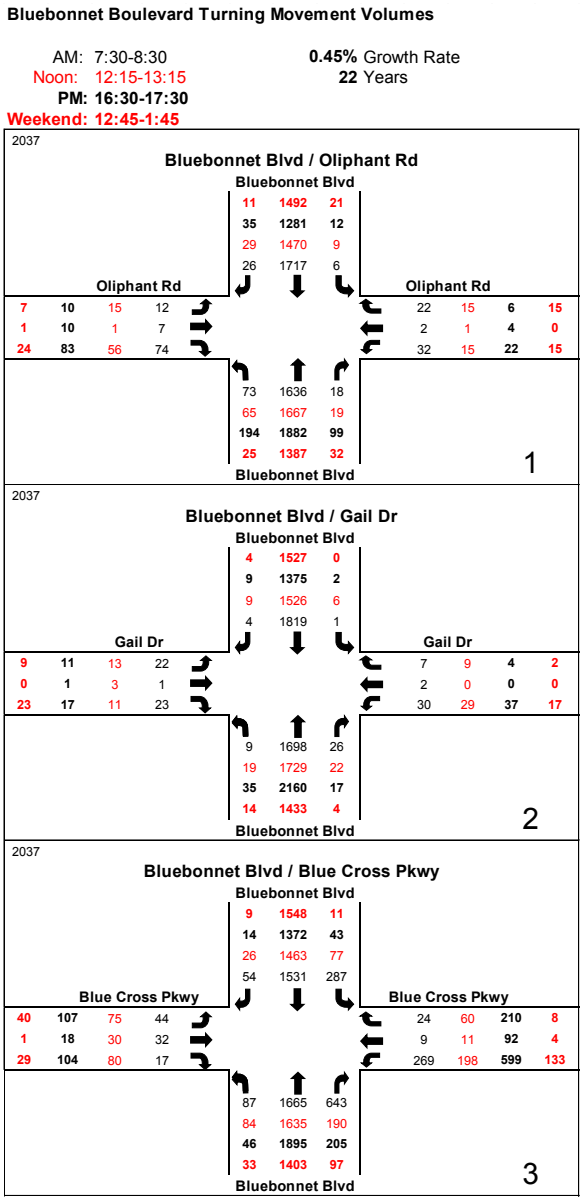


Figure 23: Bluebonnet Blvd 2037 No Build Peak Hour Volumes

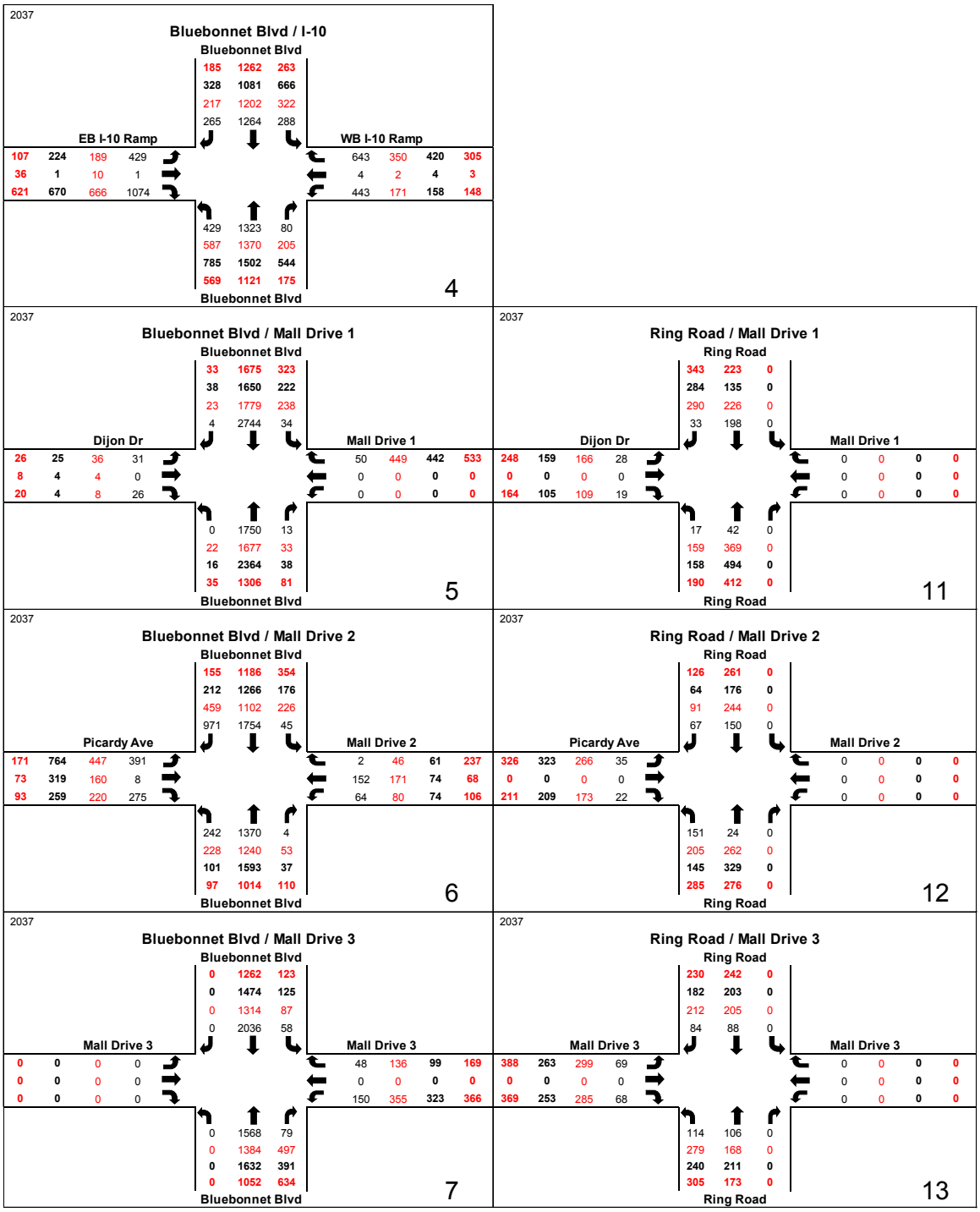
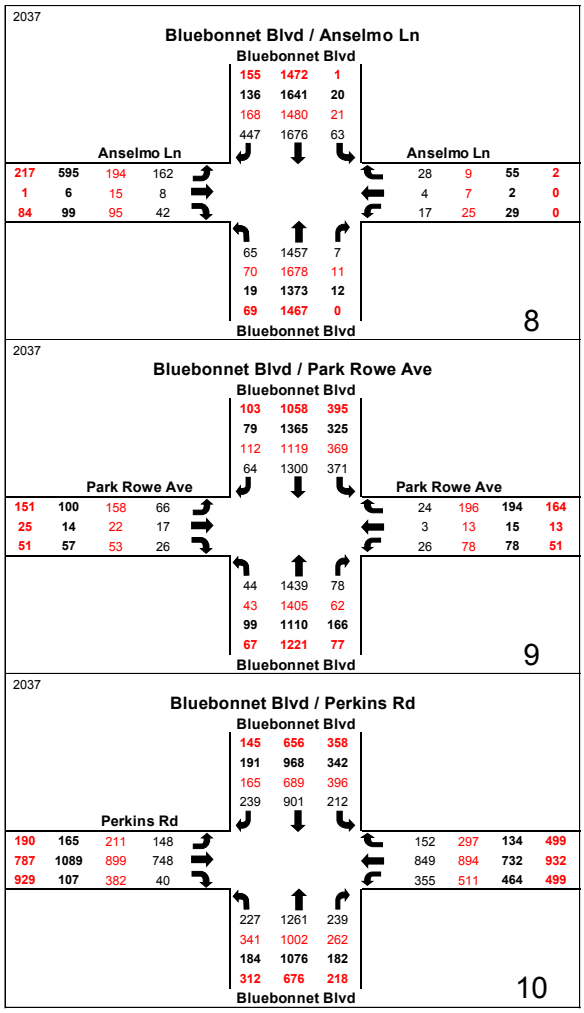


Figure 24: Bluebonnet Blvd 2037 No Build Peak Hour Volumes



4.3 PHASE 1 SCENARIO

The Phase 1 Scenario is only relevant to the Essen Lane analysis as the traffic impacts to Bluebonnet Boulevard in this scenario are projected to be the same as in the No Build scenario as access between the Our Lady of the Lake Children's Hospital and Bluebonnet is the same in both scenarios. However, the Phase 1 Scenario does impact Essen Lane due to the implementation of Phase 1 of the proposed Dijon Extension roadway, which would span from Essen Lane to just west of Midway Boulevard. With the implementation of Phase 1 of Dijon Extension, the existing Margret Ann traffic signal would be relocated to the Dijon intersection with the Margret Ann approaches becoming right-in, right-out only. The intersection geometry at the intersection of Essen Lane at Dijon Extension would be as follows:

- Dijon Extension at Essen Lane
    - Northbound Approach (Essen Lane)
        - 1 Left Turn Lane
        - 3 Thru Lanes
        - 1 Right Turn Lane (new geometry on new pavement)
    - Southbound Approach (Essen Lane)
        - 1 Left Turn Lane (new geometry on existing pavement)
        - 3 Thru Lanes with Shared Right Turn
    - Eastbound Approach (Dijon Drive)
        - 2 Left Turn Lanes (new geometry – pavement widening minimal)
        - 1 Thru Lane with Shared Right Turn
    - Westbound Approach (Dijon Extension)
        - 2 Left Turn Lanes (new geometry on new pavement)
        - 1 Thru Lane (new geometry on new pavement)
        - 1 Right Turn Lane (new geometry on new pavement)

This scenario also includes all geometric parameters set in the No Build Scenario. The change to volumes along Essen Lane would be similar to the No Build scenario, but would yield a slightly different trip distribution from the Our Lady of the Lake Children's Hospital along with some re-routing of trips using the new Dijon Extension as opposed to existing roads. The Phase 1 volumes developed for the 2017 analysis year are displayed in **Figure 25 through Figure 27** on the following pages. The purpose of modeling this scenario is to determine the impacts that an incomplete Dijon Extension would have on the roadway network while Phase 2 is being constructed the rest of the way to Bluebonnet Boulevard.

Figure 25: Essen Lane 2017 Phase 1 Peak Hour Volumes

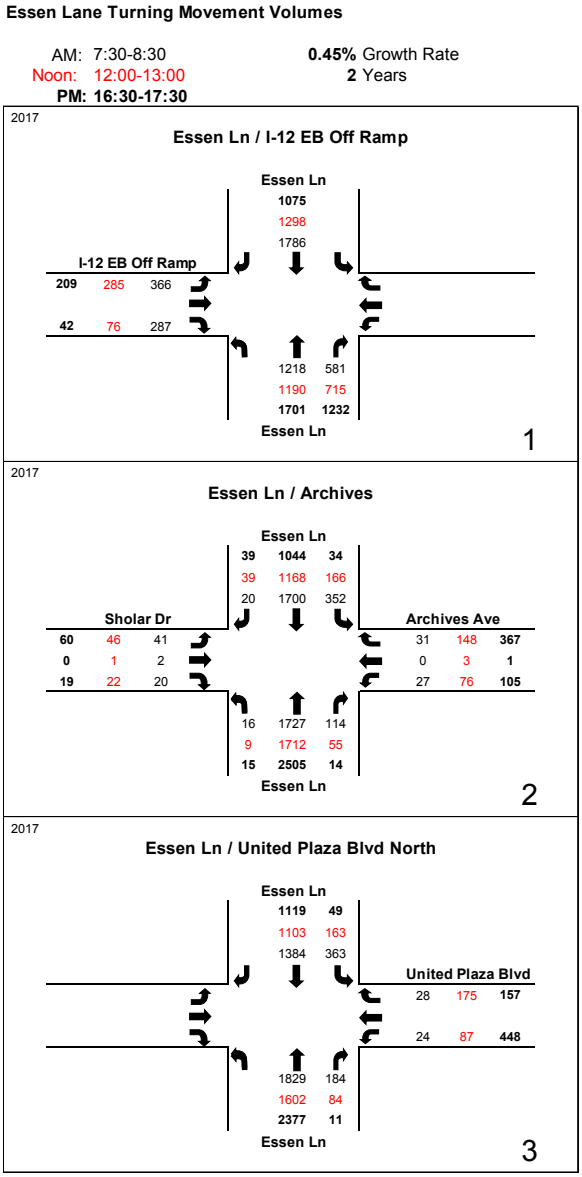


Figure 26: Essen Lane 2017 Phase 1 Peak Hour Volumes

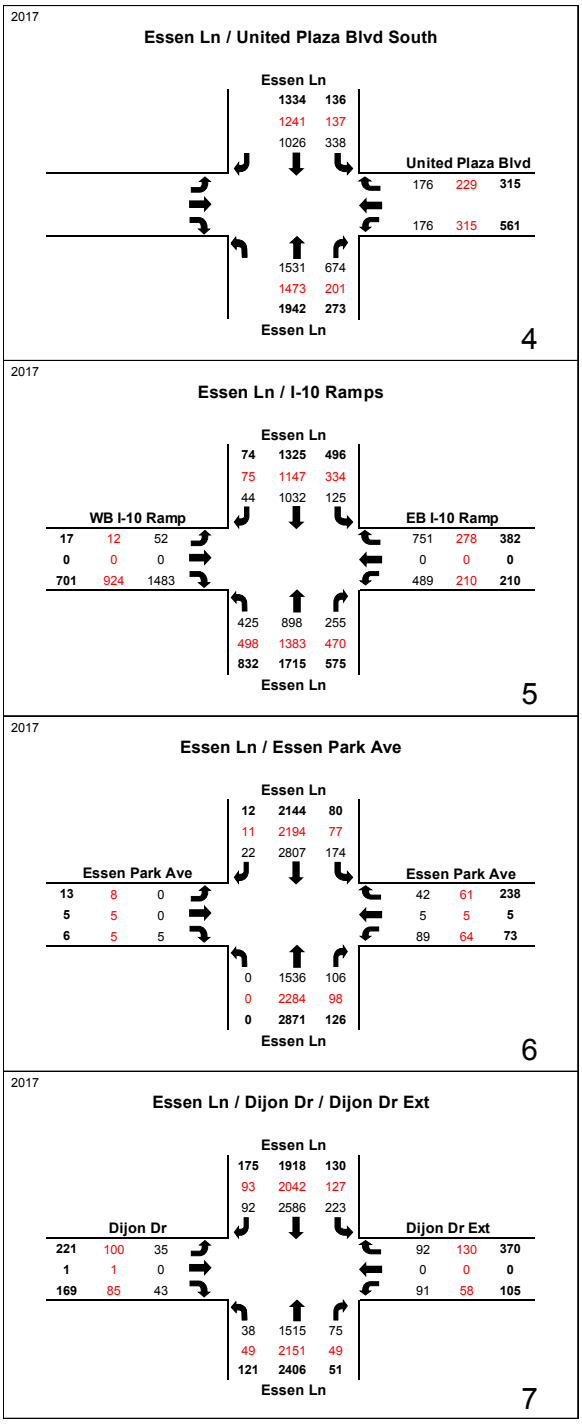
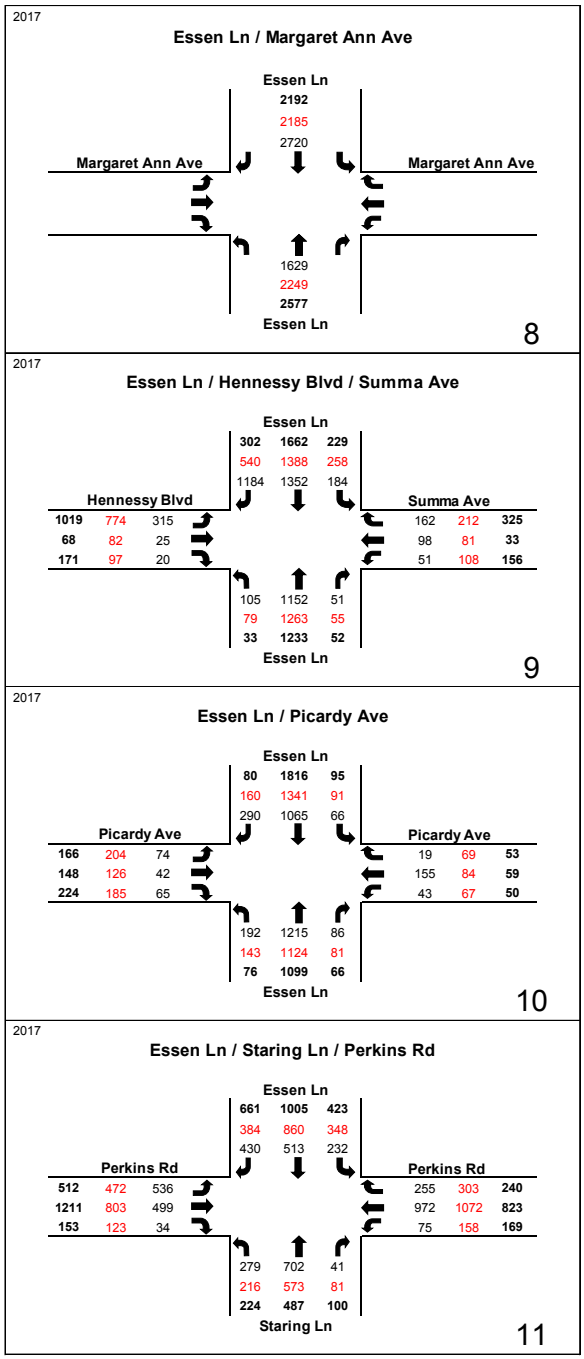


Figure 27: Essen Lane 2017 Phase 1 Peak Hour Volumes



4.4 BUILD SCENARIO

The Build Scenario models the expected final geometric design and volume demand throughout the study area as detailed below.

4.4.1 Build Geometry

The proposed geometry of Dijon extension would consist of a 4-lane cross-section with a 24-foot median throughout most of the alignment. The median would be reduced to a 4 foot back-to-back curb section as it approaches Essen Lane to accommodate two left turn lanes and Bluebonnet Boulevard where right-of-way constraints are tightened. The proposed intersection geometries for Dijon Extension at Essen Lane and at Bluebonnet Boulevard are detailed below:

- Dijon Extension at Essen Lane
    - Northbound Approach (Essen Lane)
        - 1 Left Turn Lane
        - 3 Thru Lanes
        - 1 Right Turn Lane (new geometry on new pavement)
    - Southbound Approach (Essen Lane)
        - 1 Left Turn Lane (new geometry on existing pavement)
        - 3 Thru Lanes with Shared Right Turn
    - Eastbound Approach (Dijon Drive)
        - 2 Left Turn Lanes (new geometry – pavement widening minimal)
        - 1 Thru Lane with Shared Right Turn
    - Westbound Approach (Dijon Extension)
        - 2 Left Turn Lanes (new geometry on new pavement)
        - 1 Thru Lane (new geometry on new pavement)
        - 1 Right Turn Lane (new geometry on new pavement)
- Dijon Extension at Bluebonnet Boulevard
    - Northbound Approach (Bluebonnet Boulevard)
        - 1 Left Turn Lane
        - 3 Thru Lanes
        - 1 Right Turn Lane
    - Southbound Approach (Bluebonnet Boulevard)
        - 2 Left Turn Lanes
        - 3 Thru Lanes
        - 1 Right Turn Lane
    - Eastbound Approach (Dijon Extension)
        - 1 Left Turn Lane
        - 1 Thru Lane with Share Right Turn
    - Westbound Approach (Mall Drive 1)
        - 2 Right Turn Lanes

Furthermore, improvements are being proposed at the Bluebonnet Boulevard at I-10 interchange to help improve safety and operations. The proposed geometry would consist of the changes detailed below:

- I-10 Eastbound at Bluebonnet Boulevard
  - Northbound Approach (Bluebonnet Boulevard)
    - 4 Thru Lanes
    - 1 Right Turn Lane
  - Southbound Approach (Bluebonnet Boulevard)
    - 2 Left Turn Lanes (new geometry on existing pavement by shifting right thru lane onto shoulder)
    - 2 Thru Lanes
  - Eastbound Approach (Dijon Drive)
    - 1 Left Turn Lanes
    - 1 Thru Lane with Shared Left Turn
    - 2 Right Turn Lanes (new geometry on new pavement)
- I-10 Westbound at Bluebonnet Boulevard
  - Northbound Approach (Bluebonnet Boulevard)
    - 2 Left Turn Lane
    - 2 Thru Lanes
  - Southbound Approach (Bluebonnet Boulevard)
    - 3 Thru Lanes with Shared Right Turn
  - Westbound Approach (Mall Drive 1)
    - 1 Left Turn Lane
    - 1 Thru Lane with Shared Left Turn
    - 1 Right Turn Lane

As an additional note, if Dijon Extension is to be constructed, the traffic signal would be removed from the existing Margret Ann Avenue intersection at Essen Lane and the Margret Ann Avenue approaches would become right-in, right-out only.

4.4.2 Build Traffic Volumes

It is expected that the traffic volumes in the Build scenario would be very similar to those of the No Build scenario with the exception of two changes. Trips generated from the Our Lady of the Lake Children's Hospital would access Bluebonnet Boulevard and Essen Lane differently and there are expected to be diverted trips using Dijon Extension as opposed to existing roadways. These changes are reflected in the Build volumes used for analysis that are displayed in **Figure 28 through Figure 39** on the following pages.

Figure 28: Essen Lane 2017 Build Peak Hour Volumes

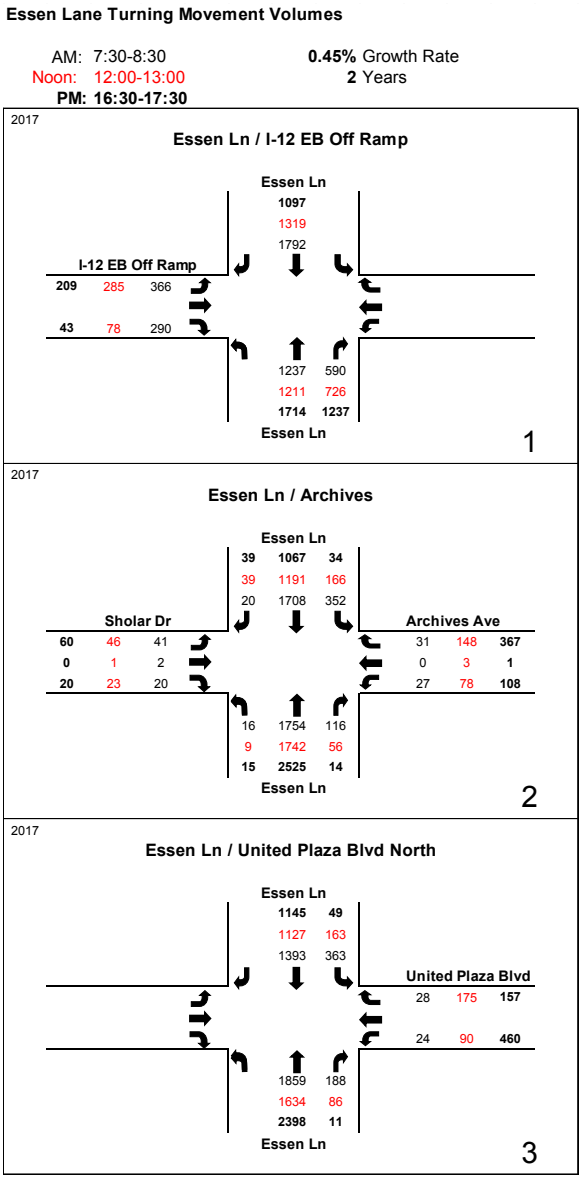


Figure 29: Essen Lane 2017 Build Peak Hour Volumes

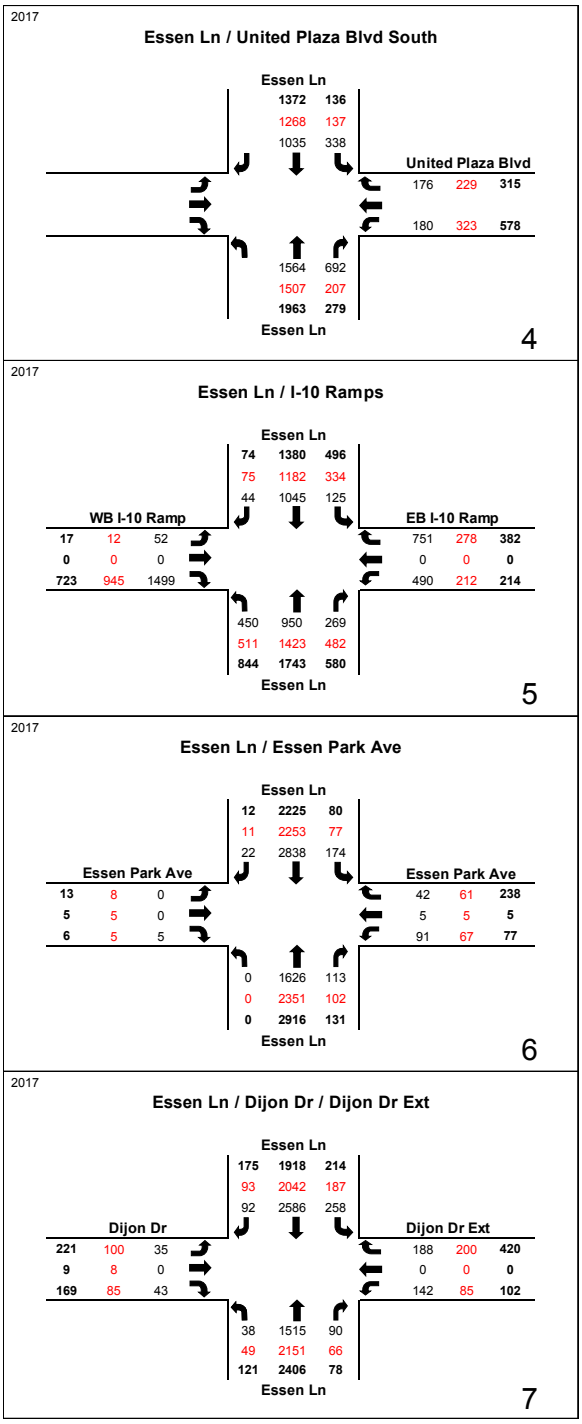


Figure 30: Essen Lane 2017 Build Peak Hour Volumes

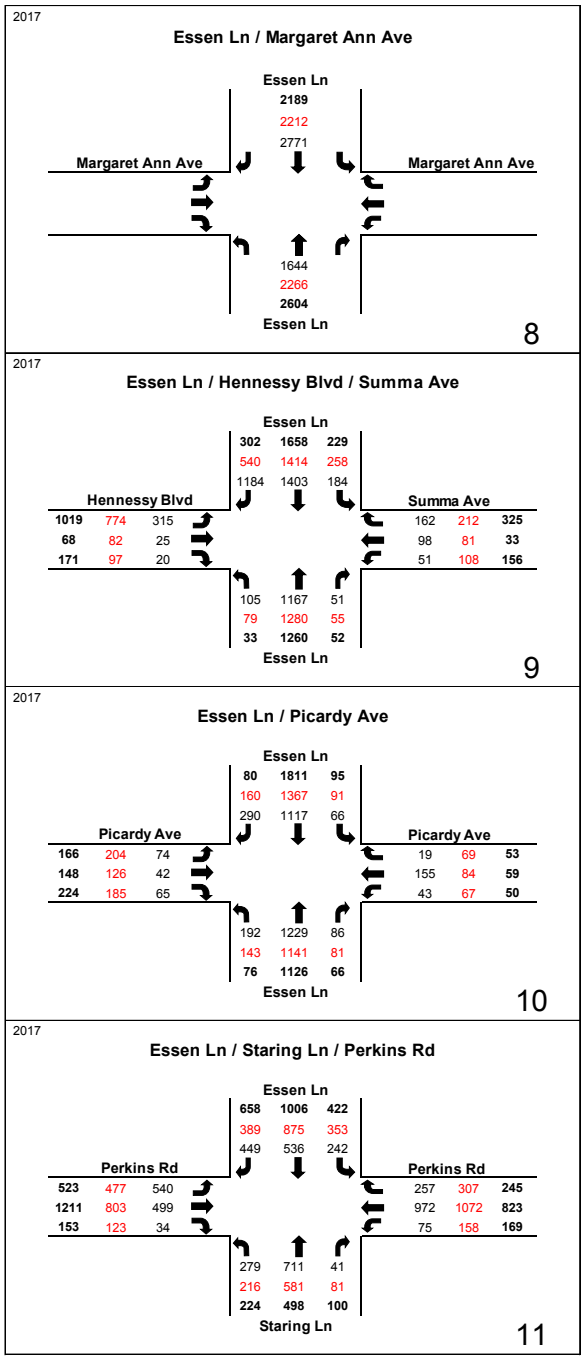


Figure 31: Essen Lane 2037 Build Peak Hour Volumes

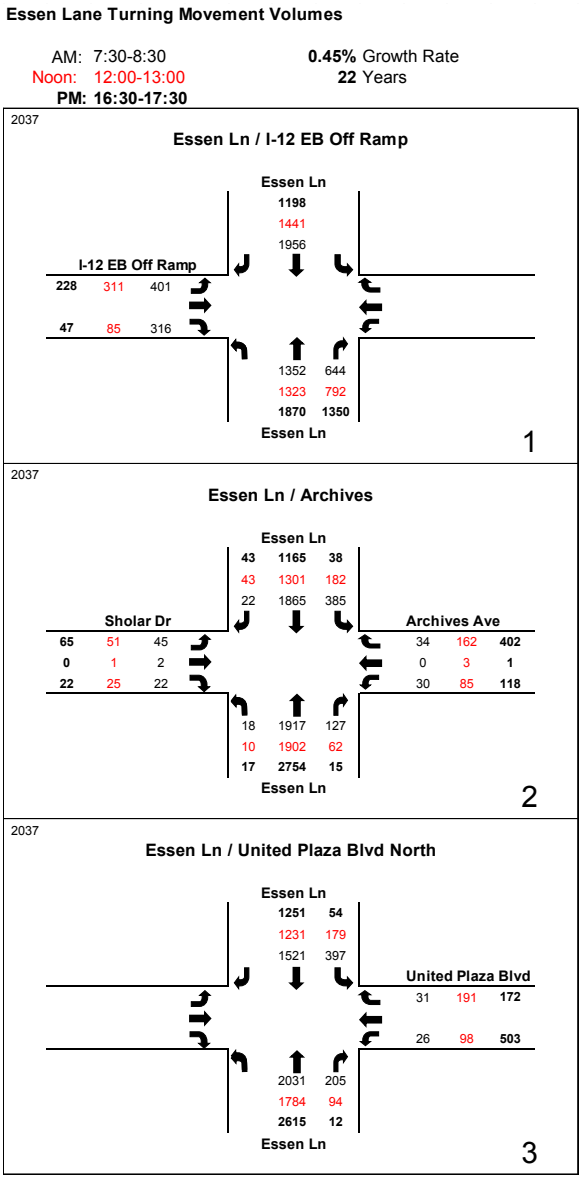


Figure 32: Essen Lane 2037 Build Peak Hour Volumes

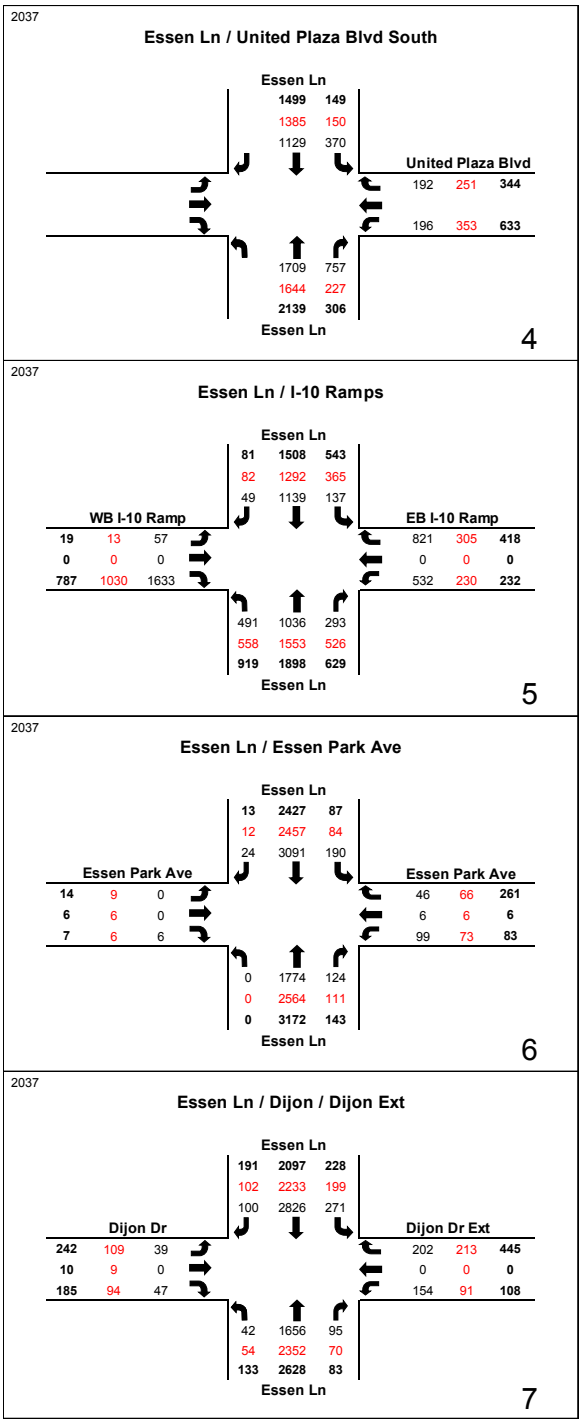


Figure 33: Essen Lane 2037 Build Peak Hour Volumes

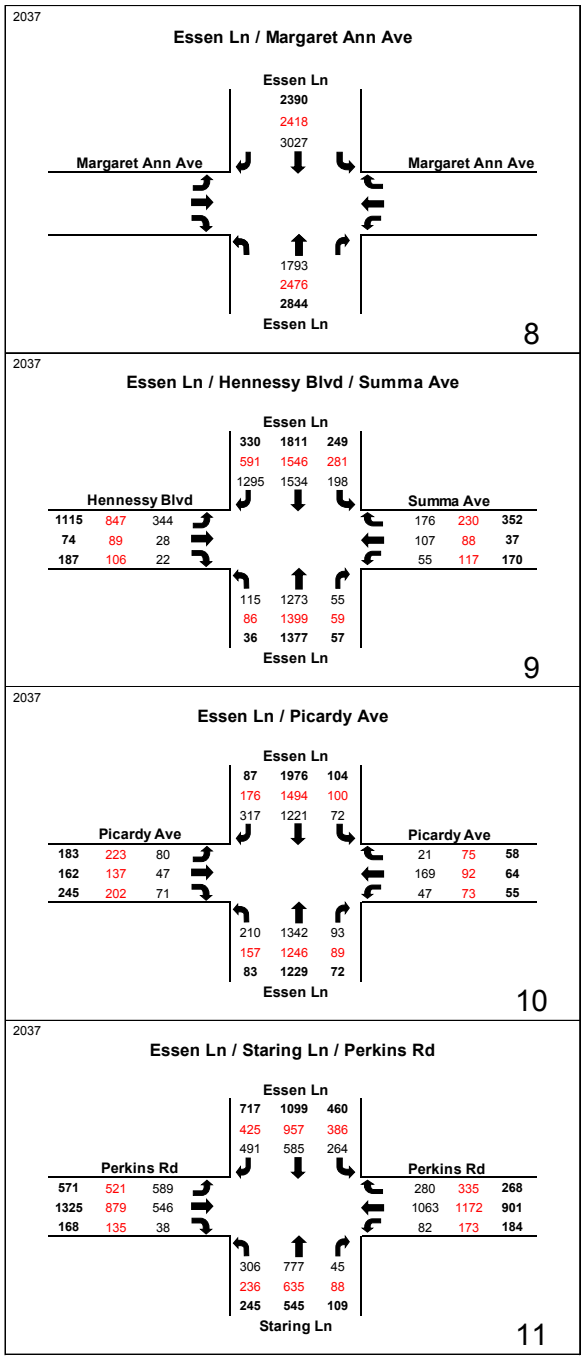


Figure 34: Bluebonnet Blvd 2017 Build Peak Hour Volumes

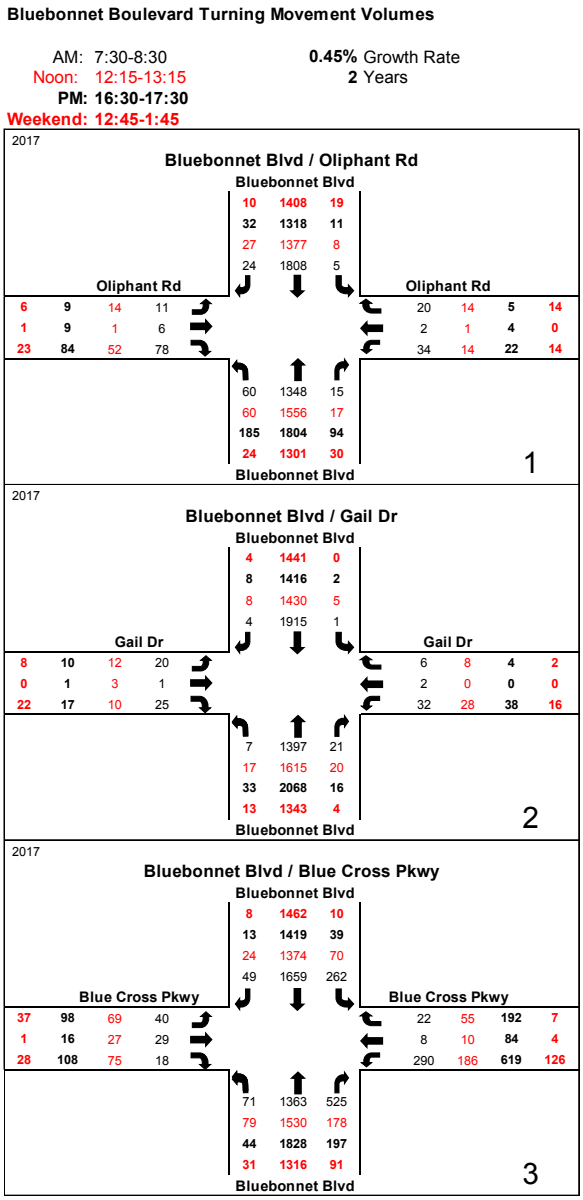


Figure 35: Bluebonnet Blvd 2017 Build Peak Hour Volumes

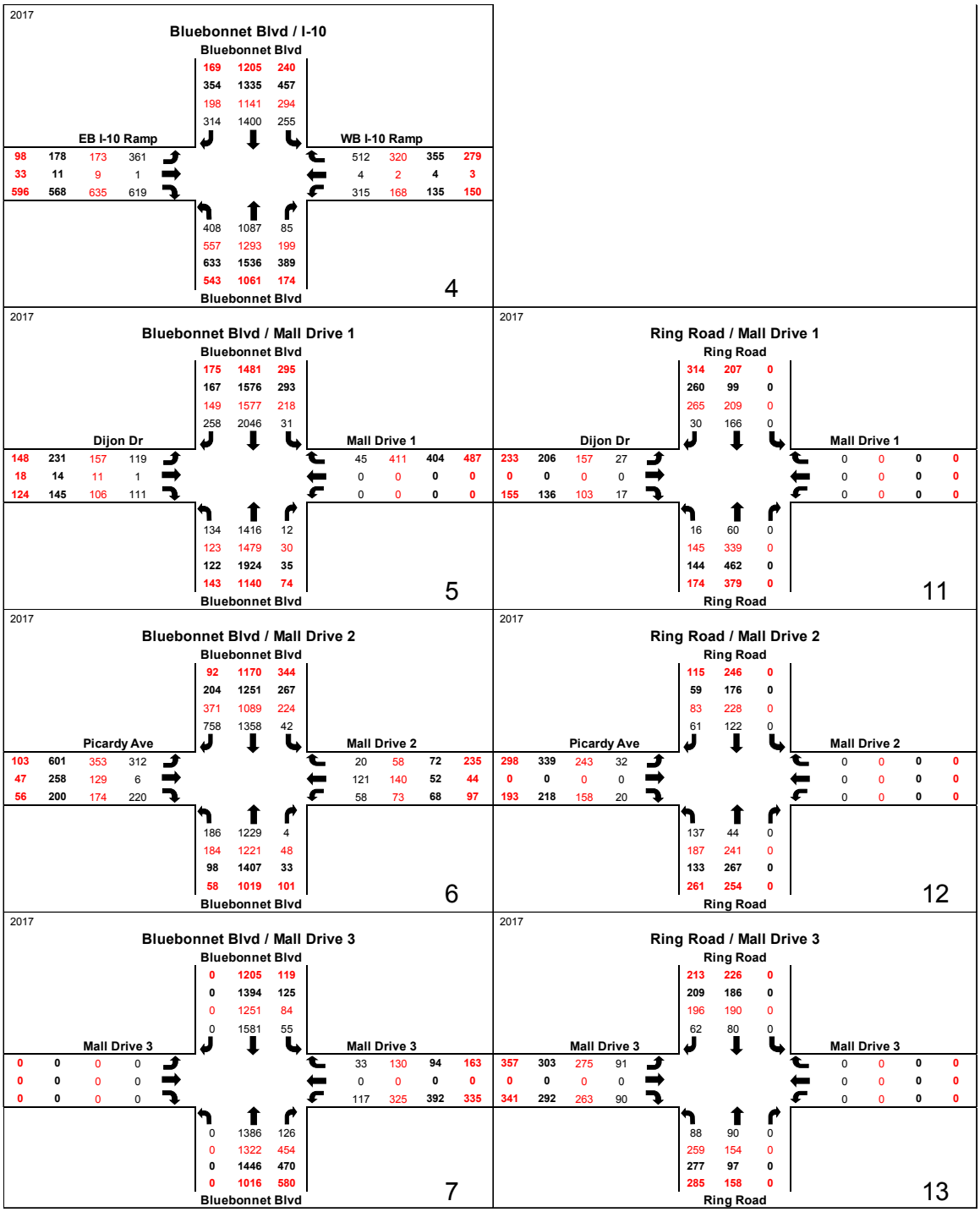


Figure 36: Bluebonnet Blvd 2017 Build Peak Hour Volumes

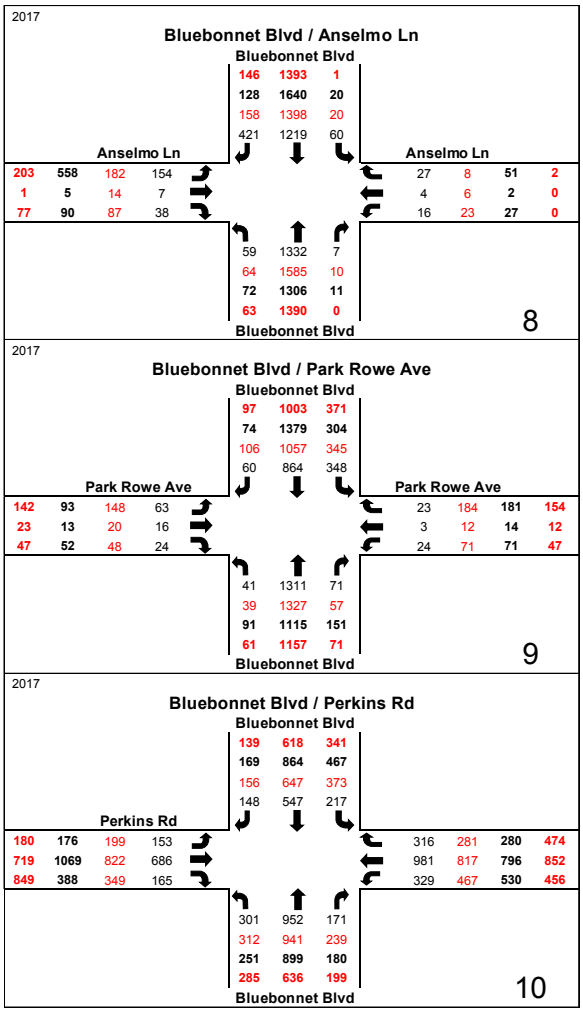


Figure 37: Bluebonnet Blvd 2037 Build Peak Hour Volumes

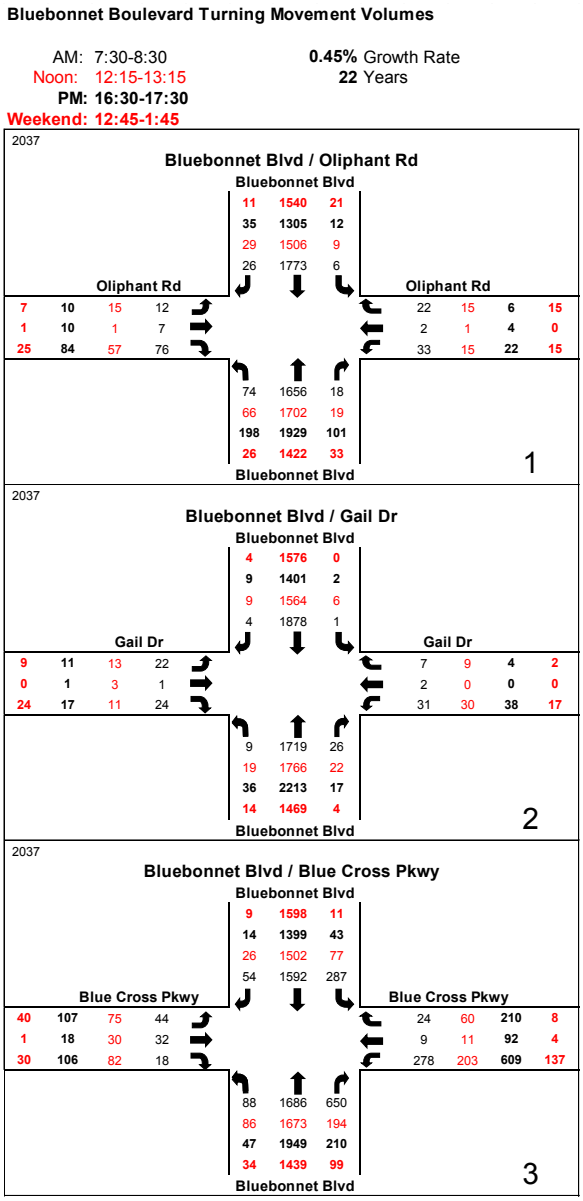


Figure 38: Bluebonnet Blvd 2037 Build Peak Hour Volumes

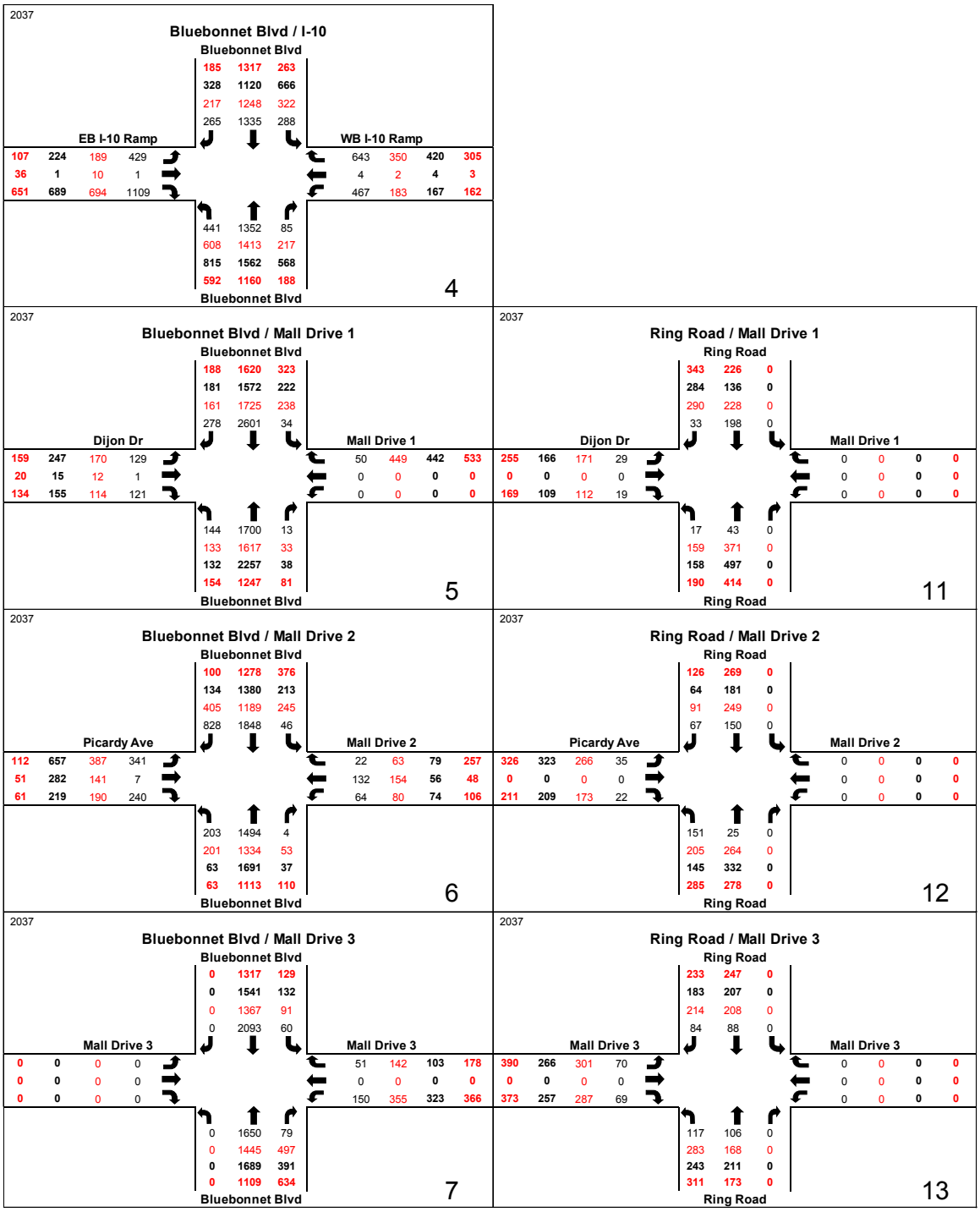
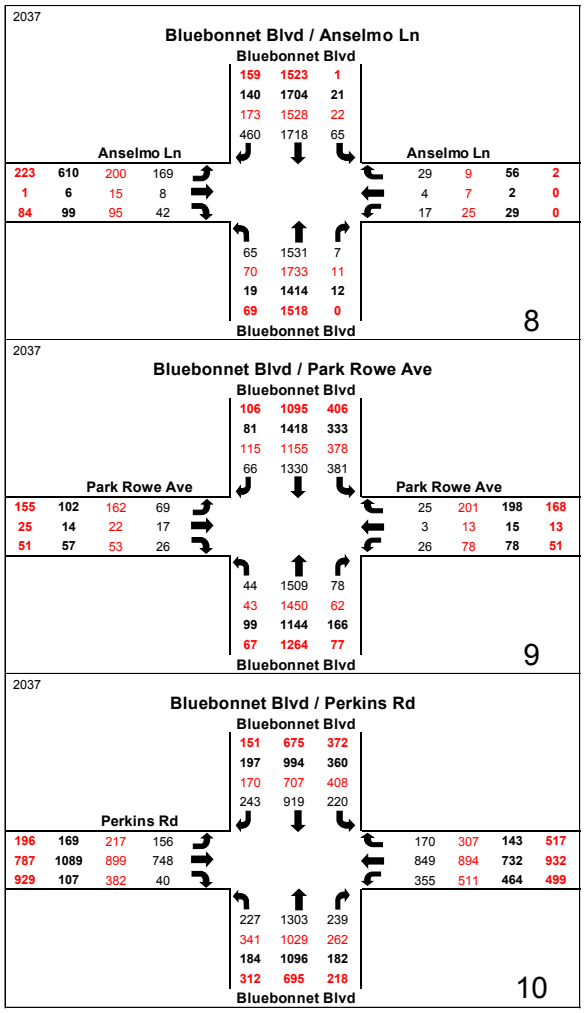


Figure 39: Bluebonnet Blvd 2037 Build Peak Hour Volumes



5.0 TRAFFIC ANALYSIS

5.1 OPERATIONAL ANALYSIS

Traffic models were developed using Synchro 8. Existing, No Build, Phase 1, and Build conditions were modeled along Essen Lane during the AM, Noon, and PM peak hours while Existing, No Build, and Build conditions were modeled along Bluebonnet Boulevard during the AM, Noon, PM, and Weekend peak hours. To determine the operational differences between each scenario, the studied intersections were analyzed to reveal any variations to the Level of Service (LOS) for individual movements or changes on overall intersection operations. All intersections analyzed in Synchro were signalized intersections. LOS's are rated from A (free flow to traffic with minimal control delay) to F (breakdown of traffic flow and excessive control delay). LOS criteria for signalized intersections (based on the Highway Capacity Manual 2010) are presented in **Table 2** below.

Table 2: Level of Service Criteria for Signalized Intersections

Level of Service	Delay Range (seconds)
A	< 10
B	≥ 10 and < 20
C	≥ 20 and < 35
D	≥ 35 and < 55
E	≥ 55 and < 80
F	≥ 80

5.2 ASSUMPTIONS

After completing our data acquisition and analysis preparation, we compiled a list of assumptions that were made as we moved forward in the study process. These assumptions can be seen below:

- The No Build analysis assumes two access driveways to the Our Lady of the Lake Children's Hospital: one on Essen Lane at Margaret Ann Avenue and one on Mancuso Lane Extension that would connect to Summa Avenue.

- The Dijon Extension Phase 1 analysis assumes that Essen will be accessed from the Our Lady of the Lake Children's Hospital via Dijon Extension and Summa Avenue while Bluebonnet will be accessed via Picardy Avenue only.

- The Build analysis assumes that Essen will be accessed from the Our Lady of the Lake Children's Hospital via Dijon Extension and Summa Avenue while Bluebonnet will be accessed via Dijon Extension and Picardy.

- DTD instructed us to remove Right Turn on Red at locations with overlaps as well as to set the right turn overlaps to permissive movements instead of protected based on common practice.

- The allowable movements at the intersection of Bluebonnet Boulevard at Mall Drive 1/Dijon Extension will not change from the existing configuration (i.e. the westbound approach will continue to be right turn only).

5.3 ANALYSIS RESULTS

The volume design years studied in this report were 2015, 2017, and 2037 with Existing, No Build, Phase 1, and Build geometric conditions considered. The results of the Synchro analyses are presented on the following pages in **Table 3 through Table 23**. The 2015 Existing results for Essen Lane have not been included in the comparative tables because the 2015 Existing analysis assumes pre-widening conditions along Essen Lane—a project which is already under construction. However, the 2015 Existing scenario for Essen Lane was analyzed for calibration purposes and the results can be found in **Appendix L**. The tables detail the delay and LOS as well as the 50% and 95% queue lengths by movement for each intersection being studied. Any footnote errors associated with the queues that are present in the Synchro output have also been included in the results tables. The detailed analyses results are included in **Appendix M**.

Along the Essen Lane corridor, the results indicate general operational similarities between the No Build and Build scenarios during the AM, Noon, and PM peak periods in the 2037 design year. However, there are some noticeable differences when looking around the Essen Lane intersections with Dijon Extension, Margaret Ann Avenue, and Hennessey Boulevard during the PM peak period. The intersection of Dijon Extension at Essen Lane is expected to operate with less overall delay than the existing Margaret Ann Avenue at Essen Lane intersection in the 2037 design year; however, the southbound left queue length is near the storage limit in the Build scenario. While the available storage length for that movement is shown as 350', there is 50' available in the northbound left turn lane for Essen Park Lane (which has a recorded volume of 0 vehicles per hour) as the section between Essen Park and Dijon Extension is a two-way left turn lane. So there is adequate pavement, but it is approaching the combined 400' limit for vehicles to queue in. At the intersection of Hennessy Boulevard at Essen Park there is noticeable overall intersection improvement in the Build scenario based on the amount of traffic volumes taken away from this intersection with the construction of Dijon Extension; however, it should be noted that the reported queues are very similar between the No Build and Build scenarios.

Similar to the Essen Lane corridor, the Bluebonnet Boulevard corridor results show very similar results between the No Build and Build scenarios apart from a few intersections: Bluebonnet Boulevard at I-10, Bluebonnet Boulevard at Mall Drive 1/Dijon Extension, and Bluebonnet Boulevard at Mall Drive 2/Picardy Avenue. The primary difference between the No Build and Build scenarios at the I-10 interchange stems from the geometric changes proposed at the interchange in the Build condition resulting in differences such as the creation of an eastbound right turn queue, the reduction of the southbound left turn queue, the increase of the northbound queue, the increase in southbound right turn queue, and the reduction of the overall southbound approach queue. There is consistently an increase in overall intersection delay from the No Build to Build scenario in all analysis periods at the intersection of Mall Drive 1/Dijon Extension at Bluebonnet Boulevard; however, the projected queues along Bluebonnet Boulevard remain stable between the two scenarios. Lastly, there are noticeable improvements in overall delay at the intersection of Bluebonnet Boulevard at Mall Drive 2/Picardy Avenue

throughout all analysis periods, primarily due to Dijon Extension alleviating the southbound right turn volume. Outside of the southbound right turn movement, the queue lengths along Bluebonnet Boulevard are consistent between the Build and No Build scenarios at this intersection.

Table 3: Essen Lane Analysis Results AM

	2017 No Build				2017 Phase 1				2017 Build				2037 No Build				2037 Build				Available Storage Length (feet)
I-12 EB Off Ramp at Essen Ln	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	
Northbound Thru (Essen Ln)	12.1	B	143	308	12.1	B	144	309	12.5	B	158	318	4.5	A	42	53	13.4	B	179	294	425
Southbound Thru (Essen Ln)	23.5	C	624	777	23.5	C	624	777	23.7	C	634	784	26.6	C	696	#845	27.1	C	702	#860	1345
Eastbound Left (I-12 EB Off Ramp)	65.1	E	273	#413	65.1	E	273	#413	64.9	E	272	#413	72.9	E	297	#480	72.5	E	297	#480	190
Eastbound Right (I-12 EB Off Ramp)	62.3	E	245	#395	62.3	E	245	#395	63.1	E	247	#402	79.2	E	266	#454	71.3	E	270	#460	1160
Overall	**23.3**	**C**			**23.3**	**C**			**23.5**	**C**			**24.4**	**C**			**26.5**	**C**			
Archives Ave at Essen Ln																					
Northbound Left (Essen Ln)	1.4	A	0	m0	1.3	A	0	m0	1.2	A	0	m0	7.1	A	1	m3	6.5	A	1	m3	175
Northbound Thru (Essen Ln)	3.7	A	16	6	3.7	A	16	6	3.6	A	12	6	7.5	A	59	88	5.9	A	26	114	460
Northbound Right (Essen Ln)	3.7	A	16	6	3.7	A	16	6	3.6	A	12	6	7.5	A	59	88	5.9	A	26	114	460
Southbound Left (Essen Ln)	58.6	E	248	m250	58.6	E	247	m250	58.4	E	244	m248	54.9	D	271	m314	55.9	E	243	m239	175
Southbound Thru (Essen Ln)	5.1	A	68	224	5.1	A	68	224	5.1	A	76	219	9.2	A	83	361	5.7	A	84	152	395
Southbound Right (Essen Ln)	5.1	A	68	224	5.1	A	68	224	5.1	A	76	219	9.2	A	83	361	5.7	A	84	152	395
Eastbound Left (Sholar Dr)	72.6	E	34	73	72.6	E	34	73	72.6	E	34	73	73.6	E	36	76	73.6	E	36	76	100
Eastbound Thru (Sholar Dr)	24.8	C	1	29	24.8	C	1	29	24.8	C	1	29	24.3	C	2	29	24.3	C	2	29	690
Eastbound Right (Sholar Dr)	24.8	C	1	29	24.8	C	1	29	24.8	C	1	29	24.3	C	2	29	24.3	C	2	29	690
Westbound Left (Archives Ave)	62.3	E	22	53	62.3	E	22	53	62.3	E	22	53	63.4	E	24	57	63.4	E	24	57	135
Westbound Thru (Archives Ave)	62.3	E	22	53	62.3	E	22	53	62.3	E	22	53	63.4	E	24	57	63.4	E	24	57	600
Westbound Right (Archives Ave)	24.5	C	0	0	24.5	C	18	36	24.5	C	18	36	23.6	C	19	36	23.6	C	19	36	600
Overall	**10.4**	**B**			**10.4**	**B**			**10.3**	**B**			**13.6**	**B**			**11.4**	**B**			
United Plaza Blvd North at Essen Ln																					
Northbound Thru (Essen Ln)	7.8	A	105	156	7.8	A	105	157	7.8	A	105	163	11.6	B	137	450	12.8	B	265	m666	965
Northbound Right (Essen Ln)	3.3	A	18	m25	3.3	A	18	m25	3.3	A	18	m25	4.3	A	24	m31	3.7	A	17	m61	965
Southbound Left (Essen Ln)	63.1	E	242	311	63.2	E	243	311	63.1	E	242	311	55.2	E	251	303	62.7	E	291	329	165
Southbound Thru (Essen Ln)	1.1	A	43	0	1.1	A	0	0	1.1	A	43	0	1.5	A	100	0	0.9	A	8	1	485
Westbound Left (United Plaza)	60.5	E	20	49	60.5	E	20	49	60.5	E	20	49	61.0	E	20	51	61.0	E	20	51	1950
Westbound Right (United Plaza)	19.9	B	0	17	19.9	B	0	17	19.9	B	0	17	19.5	B	0	18	19.5	B	0	18	1950
Overall	**10.9**	**B**			**10.9**	**B**			**10.8**	**B**			**12.1**	**B**			**13.1**	**B**			
United Plaza Blvd South at Essen Ln																					
Northbound Thru (Essen Ln)	22.0	C	654	#832	21.9	C	654	#825	22.9	C	678	#865	19.6	B	700	#284	22.2	C	731	#802	740
Northbound Right (Essen Ln)	22.0	C	654	#832	21.9	C	654	#825	22.9	C	678	#865	19.6	B	700	#284	22.2	C	731	#802	740
Southbound Left (Essen Ln)	61.7	E	239	361	31.7	C	240	361	61.5	E	240	361	75.8	E	232	#455	69.8	E	275	447	165
Southbound Thru (Essen Ln)	5.5	A	153	188	5.5	A	153	188	5.6	A	157	191	5.1	A	157	154	6.3	A	205	247	905
Westbound Left (United Plaza)	52.2	D	71	108	52.2	D	71	108	52.4	D	72	111	52.9	D	75	113	53.1	D	76	115	2150
Westbound Right (United Plaza)	28.4	C	106	146	28.4	C	106	146	28.4	C	106	146	30.8	C	113	178	30.8	C	113	178	105
Overall	**22.7**	**C**			**22.7**	**C**			**23.3**	**C**			**22.6**	**C**			**23.9**	**C**			
I-10 WB at Essen Ln																					
Northbound Left (Essen Ln)	27.5	C	136	156	33.3	C	146	167	30.2	C	148	189	23.0	C	135	181	27.3	C	127	203	310
Northbound Thru (Essen Ln)	11.9	B	440	356	10.4	B	319	345	11.8	B	446	413	14.5	B	456	512	12.8	B	481	554	310
Southbound Thru (Essen Ln)	23.8	C	199	238	23.8	C	199	238	24.7	C	204	243	28.5	C	236	307	29.0	C	218	302	725
Southbound Right (Essen Ln)	23.8	C	199	238	23.8	C	199	238	24.7	C	204	243	28.5	C	236	307	29.0	C	218	302	725
Westbound Left (WB I-10 Ramp)	57.4	E	203	283	57.4	E	203	283	57.1	E	203	283	55.8	E	212	287	56.0	E	213	289	1960
Westbound Thru (WB I-10 Ramp)	57.4	E	203	283	57.4	E	203	283	57.4	E	204	284	55.8	E	212	287	56.0	E	213	289	5200
Westbound Right (WB I-10 Ramp)	1.2	A	0	0	1.2	A	0	0	1.2	A	0	0	1.4	A	0	0	1.4	A	0	0	5200
Overall	**21.1**	**C**			**21.4**	**C**			**21.6**	**C**			**22.5**	**C**			**22.7**	**C**			

m - indicates that upstream metering is in effect | # - indicates that the 95th percentile volume exceeds capacity | ~ - indicates that the volume exceeds capacity and queue is theoretically infinite

Table 4: Essen Lane Analysis Results AM Continued

	2017 No Build				2017 Phase 1				2017 Build				2037 No Build				2037 Build				Available Storage Length (feet)
I-10 EB at Essen Ln	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	
Northbound Thru (Essen Ln)	14.4	B	227	0	11.6	B	194	0	10.5	B	112	0	10.7	B	189	0	6.6	A	65	0	600
Northbound Right (Essen Ln)	14.4	B	227	0	11.6	B	194	0	10.5	B	112	0	10.7	B	189	0	6.6	A	65	0	600
Southbound Left (Essen Ln)	32.2	C	45	80	32.1	C	44	80	31.3	C	40	79	31.3	C	49	73	31.7	C	47	73	305
Southbound Thru (Essen Ln)	8.6	A	221	323	8.6	A	224	323	9.2	A	220	331	11.5	B	201	393	12.5	B	205	403	305
Eastbound Left (EB I-10 Ramp)	62.1	E	22	54	62.1	E	22	54	62.1	E	22	54	62.9	E	24	56	62.9	E	24	56	1620
Eastbound Thru (EB I-10 Ramp)	62.6	E	23	55	62.6	E	23	55	62.6	E	23	55	62.9	E	24	56	62.9	E	24	56	3335
Eastbound Right (EB I-10 Ramp)	36.3	D	~47	#313	37.5	D	~47	#313	39.2	D	~74	#340	61.4	E	~187	#451	61.3	E	~219	#485	3335
Overall	**20.4**	**C**			**19.8**	**B**			**20.0**	**C**			**27.8**	**C**			**26.5**	**C**			
Essen Park Ave at Essen Ln																					
Northbound Left (Essen Ln)	46.0	D	1	m2	36.0	D	1	m2	37.0	D	1	m1	46.0	D	1	m2	35.0	D	1	m1	50
Northbound Thru (Essen Ln)	8.8	A	264	204	6.0	A	89	13	7.4	A	143	35	6.0	A	48	45	5.7	A	81	49	580
Northbound Right (Essen Ln)	8.8	A	264	204	6.0	A	89	13	7.4	A	143	35	6.0	A	48	45	5.7	A	81	49	580
Southbound Left (Essen Ln)	62.5	E	132	m158	64.5	E	132	m164	65.7	E	137	m164	63.1	E	142	m165	63.0	E	141	m165	180
Southbound Thru (Essen Ln)	7.3	A	106	m563	7.5	A	106	m562	10.5	B	109	m564	9.4	A	118	m627	10.2	B	121	m656	610
Southbound Right (Essen Ln)	7.3	A	106	m563	7.5	A	106	m562	10.5	B	109	m564	9.4	A	118	m627	10.2	B	121	m656	610
Eastbound Left (Essen Park)	0.2	A	0	0	0.2	A	0	0	0.2	A	0	0	0.2	A	0	0	0.2	A	0	0	1300
Eastbound Thru (Essen Park)	0.2	A	0	0	0.2	A	0	0	0.2	A	0	0	0.2	A	0	0	0.2	A	0	0	1300
Eastbound Right (Essen Park)	0.2	A	0	0	0.2	A	0	0	0.2	A	0	0	0.2	A	0	0	0.2	A	0	0	1300
Westbound Left (Essen Park)	77.6	E	77	136	77.6	E	77	136	77.8	E	79	137	73.7	E	82	139	73.9	E	83	140	110
Westbound Thru (Essen Park)	77.6	E	77	136	77.6	E	77	136	77.8	E	79	137	73.7	E	82	139	73.9	E	83	140	2000
Westbound Right (Essen Park)	27.8	C	26	49	28.4	C	26	50	28.3	C	25	50	26.5	C	26	48	26.4	C	26	48	2000
Overall	**11.4**	**B**			**10.6**	**B**			**12.8**	**B**			**11.6**	**B**			**11.9**	**B**			
Dijon Ave/Dijon Extension at Essen Ln																					
Northbound Left (Essen Ln)	-	-	-	-	75.8	E	34	m54	78.9	E	34	m54	-	-	-	-	77.4	E	35	m58	510
Northbound Thru (Essen Ln)	-	-	-	-	14.9	B	167	162	15.5	B	150	167	-	-	-	-	19.0	B	449	m255	1025
Northbound Right (Essen Ln)	-	-	-	-	4.9	A	14	m16	3.4	A	10	m15	-	-	-	-	6.4	A	15	m23	1025
Southbound Left (Essen Ln)	-	-	-	-	67.5	E	166	m241	66.8	E	190	m262	-	-	-	-	64.4	E	15	m23	350
Southbound Thru (Essen Ln)	-	-	-	-	11.5	B	620	161	16.0	B	653	303	-	-	-	-	15.4	B	197	m235	425
Southbound Right (Essen Ln)	-	-	-	-	11.5	B	620	161	16.0	B	653	303	-	-	-	-	15.4	B	715	#197	425
Eastbound Left (Dijon)	-	-	-	-	44.8	D	12	29	42.0	D	12	28	-	-	-	-	43.6	D	13	30	1000
Eastbound Thru (Dijon)	-	-	-	-	1.7	A	0	0	1.7	A	0	0	-	-	-	-	1.8	A	0	0	1000
Eastbound Right (Dijon)	-	-	-	-	1.7	A	0	0	1.7	A	0	0	-	-	-	-	1.8	A	0	0	115
Westbound Left (Dijon Ext)	-	-	-	-	60.5	E	38	68	58.6	E	59	93	-	-	-	-	62.7	E	63	100	300
Westbound Thru (Dijon Ext)	-	-	-	-	0.1	A	0	0	0.2	A	0	0	-	-	-	-	0.0	A	0	0	1000
Westbound Right (Dijon Ext)	-	-	-	-	0.1	A	0	0	0.2	A	0	0	-	-	-	-	0.2	A	0	0	1000
Overall	**-**	**-**			**16.5**	**B**			**19.4**	**B**			**-**	**-**			**20.1**	**C**			
Margaret Ann Ave at Essen Ln																					
Northbound Left (Essen Ln)	56.0	E	19	m31	-	-	-	-	-	-	-	-	57.7	E	19	m31	-	-	-	-	490
Northbound Thru (Essen Ln)	14.1	B	224	175	-	-	-	-	-	-	-	-	9.8	A	206	m188	-	-	-	-	980
Northbound Right (Essen Ln)	0.3	A	1	m1	-	-	-	-	-	-	-	-	1.7	A	1	m4	-	-	-	-	980
Southbound Left (Essen Ln)	68.7	E	183	m239	-	-	-	-	-	-	-	-	71.1	E	185	m227	-	-	-	-	320
Southbound Thru (Essen Ln)	6.0	A	267	189	-	-	-	-	-	-	-	-	7.8	A	284	279	-	-	-	-	640
Southbound Right (Essen Ln)	6.0	A	267	189	-	-	-	-	-	-	-	-	7.8	A	284	279	-	-	-	-	640
Eastbound Left (Margaret Ann Ave)	56.7	E	15	40	-	-	-	-	-	-	-	-	56.9	E	16	42	-	-	-	-	95
Eastbound Thru (Margaret Ann Ave)	0.9	A	0	0	-	-	-	-	-	-	-	-	0.9	A	0	0	-	-	-	-	95
Eastbound Right (Margaret Ann Ave)	0.9	A	0	0	-	-	-	-	-	-	-	-	0.9	A	0	0	-	-	-	-	95
Westbound Left (Margaret Ann Ave)	55.0	E	11	33	-	-	-	-	-	-	-	-	54.8	D	11	33	-	-	-	-	1000
Westbound Thru (Margaret Ann Ave)	55.0	E	11	33	-	-	-	-	-	-	-	-	54.8	D	11	33	-	-	-	-	1000
Westbound Right (Margaret Ann Ave)	31.5	C	44	74	-	-	-	-	-	-	-	-	31.3	C	44	73	-	-	-	-	1000
Overall	**12.4**	**B**			**-**	**-**			**-**	**-**			**11.9**	**B**			**-**	**-**			

m - indicates that upstream metering is in effect | # - indicates that the 95th percentile volume exceeds capacity | ~ - indicates that the volume exceeds capacity and queue is theoretically infinite

Table 5: Essen Lane Analysis Results AM Continued

Hennessy Blvd / Summa Ave at Essen	2017 No Build				2017 Phase 1				2017 Build				2037 No Build				2037 Build				Available Storage Length (feet)
	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	
Northbound Left (Essen Ln)	145.2	F	95	#214	142.4	F	85	#218	142.3	F	85	#218	153.2	F	~101	m#231	155.0	F	~102	m230	1070
Northbound Thru (Essen Ln)	26.8	C	326	383	28.5	C	328	385	28.7	C	334	390	15.9	B	301	376	14.7	B	286	367	1240
Northbound Right (Essen Ln)	26.8	C	326	383	28.5	C	328	385	28.7	C	334	390	15.9	B	301	376	14.7	B	286	367	1240
Southbound Left (Essen Ln)	135.3	F	~200	m#344	104.8	F	155	m#233	104.3	F	167	m#223	66.4	E	166	m215	70.7	E	173	m194	610
Southbound Thru (Essen Ln)	25.8	C	347	310	27.7	C	240	319	29.5	C	241	327	11.9	B	205	158	12.4	B	122	148	770
Southbound Right (Essen Ln)	91.7	F	~1161	#1440	89.7	F	~1204	#1469	87.5	F	~1210	#1481	128.3	F	~1315	#1575	117.8	F	~1287	1526	280
Eastbound Left (Hennessy)	37.4	D	85	124	37.4	D	85	124	37.4	D	85	124	92.8	F	112	#199	117.8	F	~118	m210	2310
Eastbound Thru (Hennessy)	38.5	D	85	147	38.5	D	84	146	38.5	D	84	146	110.4	F	112	#247	136.6	F	~113	m257	2310
Eastbound Right (Hennessy)	17.8	B	8	23	17.8	B	8	23	17.8	B	8	23	29.5	C	12	31	31.3	C	12	32	2310
Westbound Left (Summa)	68.9	E	48	96	64.3	E	38	83	64.3	E	38	83	61.8	E	50	100	65.4	E	41	86	1690
Westbound Thru (Summa)	167.4	F	~129	#269	115.6	F	93	#212	115.6	F	93	#212	114.8	F	120	#258	126.6	F	98	m225	1690
Westbound Right (Summa)	47.3	D	147	230	44.1	D	118	190	44.1	D	118	190	36.4	D	140	202	38.1	D	118	173	445
Overall	**55.9**	**E**			**52.7**	**D**			**52.3**	**D**			**57.9**	**E**			**56.5**	**E**			
Picardy Ave at Essen Ln																					
Northbound Left (Essen Ln)	67.4	E	157	233	67.4	E	157	233	67.4	E	157	233	68.4	E	166	247	68.4	E	166	247	375
Northbound Thru (Essen Ln)	11.7	B	191	263	10.3	B	177	243	10.3	B	180	247	13.3	B	210	289	11.1	B	199	274	375
Northbound Right (Essen Ln)	11.7	B	191	263	10.3	B	177	243	10.3	B	180	247	13.3	B	210	289	11.1	B	199	274	375
Southbound Left (Essen Ln)	50.4	D	61	m87	47.0	D	52	m77	46.8	D	52	m70	63.9	E	64	#141	67.6	E	56	m124	1010
Southbound Thru (Essen Ln)	1.8	A	20	16	3.5	A	2	16	4.3	A	2	17	6.5	A	36	309	10.7	B	108	119	1240
Southbound Right (Essen Ln)	1.8	A	20	16	3.5	A	2	16	4.3	A	2	17	6.5	A	36	309	10.7	B	109	119	1240
Eastbound Left (Picardy)	100.1	F	57	#124	103.0	F	61	#126	103.0	F	61	#126	111.7	F	31	#134	110.1	F	64	m134	300
Eastbound Thru (Picardy)	26.5	C	44	95	27.1	C	40	92	27.1	C	40	92	27.7	C	51	103	27.6	C	44	98	1890
Eastbound Right (Picardy)	26.5	C	44	95	27.1	C	40	92	27.1	C	40	92	27.7	C	51	103	27.6	C	44	98	1890
Westbound Left (Picardy)	46.9	D	39	76	49.5	D	33	68	49.5	D	33	68	46.6	D	41	79	48.9	D	34	69	190
Westbound Thru (Picardy)	62.5	E	169	242	63.0	E	138	206	63.0	E	138	206	62.5	E	179	254	62.5	E	146	214	4360
Westbound Right (Picardy)	62.5	E	169	242	63.0	E	138	206	63.0	E	138	206	62.5	E	179	254	62.5	E	146	214	4360
Overall	**18.0**	**B**			**17.4**	**B**			**17.5**	**B**			**21.1**	**C**			**21.1**	**C**			
Staring Ln / Perkins Rd at Essen Ln																					
Northbound Left (Staring)	70.0	E	243	#423	70.0	E	243	#423	73.5	E	247	#436	116.3	F	~306	#512	129.7	F	~326	#532	930
Northbound Thru (Staring)	103.0	F	~526	#642	103.0	F	~526	#642	105.1	F	~535	#656	101.4	F	~506	#645	105.0	F	~518	#657	3502
Northbound Right (Staring)	103.0	F	~526	#642	103.0	F	~526	#642	105.1	F	~535	#656	101.4	F	~506	#645	105.0	F	~518	#657	3502
Southbound Left (Essen Ln)	76.3	E	219	#377	76.3	E	219	#377	80.6	F	238	#411	139.1	F	~269	#462	156.0	F	~297	#491	900
Southbound Thru (Essen Ln)	67.1	E	306	382	67.1	E	306	382	67.8	E	324	401	69.7	E	312	385	72.1	E	329	405	900
Southbound Right (Essen Ln)	16.0	B	58	197	16.0	B	58	197	18.7	B	85	236	62.0	E	298	#535	72.8	E	333	#588	900
Eastbound Left (Perkins)	83.9	F	323	410	83.9	F	323	410	85.1	F	328	#415	152.5	F	~393	#519	155.8	F	~398	#525	300
Eastbound Thru (Perkins)	64.6	E	312	374	64.6	E	312	374	65.3	E	315	374	32.4	C	230	294	32.4	C	230	294	2065
Eastbound Right (Perkins)	64.6	E	312	374	64.6	E	312	374	65.3	E	315	374	32.4	C	230	294	32.4	C	230	294	2065
Westbound Left (Perkins)	51.2	D	69	133	51.2	D	69	133	51.9	D	70	133	95.2	F	89	149	95.2	F	89	149	5790
Westbound Thru (Perkins)	172.3	F	~972	#1180	172.3	F	~972	#1180	179.1	F	~990	#1183	123.4	F	~905	#1047	124.0	F	~907	#1048	6775
Westbound Right (Perkins)	172.3	F	~972	#1180	172.3	F	~972	#1180	179.1	F	~990	#1183	123.4	F	~905	#1047	124.0	F	~907	#1048	6775
Overall	**98.4**	**F**			**98.4**	**F**			**101.1**	**F**			**100.7**	**F**			**104.6**	**F**			

m - indicates that upstream metering is in effect | # - indicates that the 95th percentile volume exceeds capacity | ~ - indicates that the volume exceeds capacity and queue is theoretically infinite

Table 6: Essen Lane Analysis Results Noon

	2017 No Build				2017 Phase 1				2017 Build				2037 No Build				2037 Build				Available Storage Length (feet)
I-12 EB Off Ramp at Essen Ln	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	
Northbound Thru (Essen Ln)	4.0	A	30	127	4.1	A	30	133	4.4	A	35	157	5.6	A	63	185	5.4	A	64	185	425
Southbound Thru (Essen Ln)	9.3	A	233	355	9.3	A	233	355	9.4	A	240	364	10.8	B	284	430	11.0	B	292	443	1345
Eastbound Left (I-12 EB Off Ramp)	64.7	E	157	230	64.7	E	157	230	64.7	E	157	230	64.5	E	172	248	64.5	E	172	248	190
Eastbound Right (I-12 EB Off Ramp)	49.2	D	121	192	49.2	D	121	192	49.7	D	123	194	49.5	D	133	206	49.9	D	134	209	1160
Overall	**10.9**	**B**			**10.9**	**B**			**11.0**	**B**			**12.1**	**B**			**12.1**	**B**			
Archives Ave at Essen Ln																					
Northbound Left (Essen Ln)	4.9	A	1	m1	5.0	A	1	m2	5.3	A	1	m2	5.0	A	1	m2	4.1	A	1	m1	175
Northbound Thru (Essen Ln)	5.1	A	85	57	5.1	A	85	58	5.4	A	101	62	5.6	A	97	196	4.9	A	73	63	460
Northbound Right (Essen Ln)	5.1	A	85	57	5.1	A	85	58	5.4	A	101	62	5.6	A	97	196	4.9	A	73	63	460
Southbound Left (Essen Ln)	52.4	D	89	157	52.4	D	89	157	54.6	D	92	152	67.6	E	113	173	67.8	E	113	173	175
Southbound Thru (Essen Ln)	4.3	A	112	115	4.3	A	112	115	4.4	A	111	114	3.8	A	90	102	3.7	A	84	103	395
Southbound Right (Essen Ln)	4.3	A	112	115	4.3	A	112	115	4.4	A	111	114	3.8	A	90	102	3.7	A	84	103	395
Eastbound Left (Sholar Dr)	54.0	D	36	74	54.0	D	36	74	53.9	D	36	74	53.6	D	40	79	53.5	D	40	79	100
Eastbound Thru (Sholar Dr)	18.4	B	1	27	18.4	B	1	27	18.4	B	1	27	17.6	B	1	28	17.3	B	1	28	690
Eastbound Right (Sholar Dr)	18.4	B	1	27	18.4	B	1	27	18.4	B	1	27	17.6	B	1	28	17.3	B	1	28	690
Westbound Left (Archives Ave)	64.7	E	64	114	64.7	E	64	114	65.5	E	66	117	64.2	E	69	121	65.0	E	71	123	135
Westbound Thru (Archives Ave)	64.7	E	64	114	64.7	E	64	114	65.5	E	66	117	64.2	E	69	121	65.0	E	71	123	600
Westbound Right (Archives Ave)	38.6	D	105	145	38.6	D	105	145	38.5	D	105	144	37.4	D	114	152	37.4	D	114	152	600
Overall	**10.6**	**B**			**10.7**	**B**			**10.9**	**B**			**11.4**	**B**			**11.0**	**B**			
United Plaza Blvd North at Essen Ln																					
Northbound Thru (Essen Ln)	4.0	A	73	78	4.0	A	72	78	4.0	A	67	79	5.6	A	76	179	5.4	A	78	142	965
Northbound Right (Essen Ln)	0.7	A	1	m6	0.8	A	1	m7	0.8	A	1	m7	1.8	A	5	m14	1.4	A	2	m12	965
Southbound Left (Essen Ln)	31.8	C	35	105	31.8	C	35	105	34.7	C	37	118	44.2	D	69	167	47.0	D	76	171	165
Southbound Thru (Essen Ln)	1.9	A	33	36	1.9	A	33	36	1.9	A	34	30	1.9	A	36	35	2.0	A	44	37	485
Westbound Left (United Plaza)	67.3	E	72	125	67.3	E	72	125	67.3	E	74	127	67.4	E	78	132	67.5	E	81	136	1950
Westbound Right (United Plaza)	10.3	B	0	37	10.3	B	0	37	10.2	B	0	37	9.8	A	0	38	9.6	A	0	38	1950
Overall	**6.7**	**A**			**4.0**	**A**			**6.8**	**A**			**8.1**	**A**			**8.1**	**A**			
United Plaza Blvd South at Essen Ln																					
Northbound Thru (Essen Ln)	4.5	A	38	252	4.6	A	39	282	4.9	A	39	331	8.7	A	96	470	6.0	A	52	231	740
Northbound Right (Essen Ln)	4.5	A	38	252	4.6	A	39	282	4.9	A	39	331	8.7	A	96	470	6.0	A	52	231	740
Southbound Left (Essen Ln)	21.3	C	28	106	21.6	C	28	107	23.7	C	34	114	32.7	C	64	143	31.6	C	67	145	165
Southbound Thru (Essen Ln)	3.2	A	88	106	3.2	A	88	106	3.3	A	92	110	4.5	A	191	94	4.3	A	108	125	905
Westbound Left (United Plaza)	56.2	E	132	173	56.0	E	131	173	56.2	E	135	178	57.5	E	142	193	57.6	E	146	199	2150
Westbound Right (United Plaza)	34.1	C	153	207	34.1	C	152	206	33.9	C	151	208	34.6	C	162	240	34.4	C	161	240	105
Overall	**11.1**	**B**			**11.1**	**B**			**11.4**	**B**			**14.1**	**B**			**12.7**	**B**			
I-10 WB at Essen Ln																					
Northbound Left (Essen Ln)	37.3	D	103	154	37.4	D	103	157	34.2	C	105	190	38.4	D	99	198	38.6	D	93	213	310
Northbound Thru (Essen Ln)	5.1	A	4	5	5.1	A	4	5	8.6	A	662	548	4.4	A	5	774	4.6	A	5	797	310
Southbound Thru (Essen Ln)	21.0	C	245	198	21.1	C	245	199	21.5	C	251	215	21.9	C	192	318	24.6	C	345	286	725
Southbound Right (Essen Ln)	21.0	C	245	198	21.1	C	245	199	21.5	C	251	215	21.9	C	192	318	24.6	C	345	286	285
Westbound Left (WB I-10 Ramp)	61.6	E	89	149	61.6	E	89	149	61.7	E	89	151	60.0	E	95	155	60.3	E	97	157	1960
Westbound Thru (WB I-10 Ramp)	61.6	E	89	149	61.6	E	89	149	61.7	E	89	151	60.3	E	96	156	60.3	E	97	157	5200
Westbound Right (WB I-10 Ramp)	0.3	A	0	0	0.3	A	0	0	0.3	A	0	0	0.3	A	0	0	0.3	A	0	0	5200
Overall	**18.1**	**B**			**18.2**	**B**			**19.2**	**B**			**18.3**	**B**			**19.4**	**B**			

m - indicates that upstream metering is in effect | # - indicates that the 95th percentile volume exceeds capacity | ~ - indicates that the volume exceeds capacity and queue is theoretically infinite

Table 7: Essen Lane Analysis Results Noon Continued

	2017 No Build				2017 Phase 1				2017 Build				2037 No Build				2037 Build				Available Storage Length (feet)
I-10 EB at Essen Ln	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	
Northbound Thru (Essen Ln)	25.9	C	586	220	21.1	C	595	138	19.2	B	492	68	20.1	C	650	342	15.1	B	353	416	600
Northbound Right (Essen Ln)	25.9	C	586	220	21.1	C	595	138	19.2	B	492	68	20.1	C	650	342	15.1	B	353	416	600
Southbound Left (Essen Ln)	20.3	C	111	109	20.0	C	111	109	18.5	B	94	106	29.4	C	153	200	29.7	C	141	196	305
Southbound Thru (Essen Ln)	7.1	A	141	170	7.0	A	140	168	6.7	A	153	195	9.7	A	174	223	11.0	B	190	243	305
Eastbound Left (EB I-10 Ramp)	55.0	E	5	20	55.0	E	5	20	64.7	E	5	21	52.8	D	5	22	52.8	D	5	22	1620
Eastbound Thru (EB I-10 Ramp)	55.2	E	5	22	55.2	E	5	22	66.2	E	5	23	52.8	D	5	22	52.8	D	5	22	3335
Eastbound Right (EB I-10 Ramp)	1.9	A	0	0	1.9	A	0	0	2.1	A	0	0	2.5	A	0	0	2.7	A	0	0	3335
Overall	**16.0**	**B**			**13.7**	**B**			**12.7**	**B**			**14.7**	**B**			**12.8**	**B**			
Essen Park Ave at Essen Ln																					
Northbound Left (Essen Ln)	11.0	B	0	m0	51.0	D	1	m1	52.0	D	1	m2	51.0	D	1	m1	48.0	D	1	m1	50
Northbound Thru (Essen Ln)	12.3	B	322	250	7.1	A	157	50	7.7	A	159	60	8.8	A	72	817	8.2	A	78	106	580
Northbound Right (Essen Ln)	12.3	B	322	250	7.1	A	157	50	7.7	A	159	60	8.8	A	72	817	8.2	A	78	106	580
Southbound Left (Essen Ln)	76.9	E	65	m104	76.9	E	65	m104	76.7	E	64	m102	75.3	E	66	m109	74.1	E	64	m108	180
Southbound Thru (Essen Ln)	4.3	A	52	547	4.3	A	52	547	4.6	A	55	553	5.2	A	60	547	5.3	A	82	554	610
Southbound Right (Essen Ln)	4.3	A	52	547	4.3	A	52	547	4.6	A	55	553	5.2	A	60	547	5.3	A	82	554	610
Eastbound Left (Essen Park)	41.2	D	10	33	41.2	D	10	33	41.0	D	10	33	40.0	D	12	39	39.8	D	12	39	1300
Eastbound Thru (Essen Park)	41.2	D	10	33	41.2	D	10	33	41.0	D	10	33	40.0	D	12	39	39.8	D	12	39	1300
Eastbound Right (Essen Park)	41.2	D	10	33	41.2	D	10	33	41.0	D	10	33	40.0	D	12	39	39.8	D	12	39	1300
Westbound Left (Essen Park)	73.6	E	57	106	73.6	E	57	106	74.2	E	59	109	75.4	E	63	115	76.1	E	65	119	110
Westbound Thru (Essen Park)	73.6	E	57	106	73.6	E	57	106	74.2	E	59	109	75.4	E	63	115	76.1	E	65	119	2000
Westbound Right (Essen Park)	37.3	D	42	76	37.3	D	42	76	37.1	D	41	76	37.1	D	45	82	36.9	D	45	82	2000
Overall	**11.0**	**B**			**8.4**	**A**			**8.8**	**A**			**9.7**	**A**			**9.4**	**A**			
Dijon Ave/Dijon Extension at Essen Ln																					
Northbound Left (Essen Ln)	-	-	-	-	63.5	E	40	m48	61.9	E	41	m49	-	-	-	-	59.2	E	45	m50	510
Northbound Thru (Essen Ln)	-	-	-	-	13.9	B	353	384	26.1	C	458	m449	-	-	-	-	17.6	B	341	361	1025
Northbound Right (Essen Ln)	-	-	-	-	5.7	A	10	m18	5.9	A	17	m23	-	-	-	-	7.4	A	22	m25	1025
Southbound Left (Essen Ln)	-	-	-	-	75.7	E	97	160	78.9	E	137	225	-	-	-	-	108.1	F	158	#324	350
Southbound Thru (Essen Ln)	-	-	-	-	9.9	A	529	30	9.5	A	548	43	-	-	-	-	10.9	B	109	149	425
Southbound Right (Essen Ln)	-	-	-	-	9.9	A	529	30	9.5	A	548	43	-	-	-	-	10.9	B	109	149	425
Eastbound Left (Dijon)	-	-	-	-	45.9	D	38	65	43.9	D	38	64	-	-	-	-	43.5	D	41	67	1000
Eastbound Thru (Dijon)	-	-	-	-	24.4	C	1	54	29.6	C	7	63	-	-	-	-	31.6	C	10	68	1000
Eastbound Right (Dijon)	-	-	-	-	24.4	C	1	54	29.6	C	7	63	-	-	-	-	31.6	C	10	68	115
Westbound Left (Dijon Ext)	-	-	-	-	59.1	E	24	48	59.9	E	35	63	-	-	-	-	59.1	E	38	67	300
Westbound Thru (Dijon Ext)	-	-	-	-	0.1	A	0	0	0.2	A	0	0	-	-	-	-	0.0	A	0	0	1000
Westbound Right (Dijon Ext)	-	-	-	-	0.1	A	0	0	0.2	A	0	0	-	-	-	-	0.2	A	0	0	1000
Overall	**-**	**-**			**15.2**	**B**			**21.1**	**C**			**-**	**-**			**19.1**	**B**			
Margaret Ann Ave at Essen Ln																					
Northbound Left (Essen Ln)	62.3	E	19	m21	-	-	-	-	-	-	-	-	49.9	D	18	m20	-	-	-	-	490
Northbound Thru (Essen Ln)	14.7	B	416	m325	-	-	-	-	-	-	-	-	12.5	B	353	m387	-	-	-	-	980
Northbound Right (Essen Ln)	0.0	A	0	m0	-	-	-	-	-	-	-	-	0.3	A	0	m0	-	-	-	-	980
Southbound Left (Essen Ln)	76.9	E	92	144	-	-	-	-	-	-	-	-	72.5	E	108	m169	-	-	-	-	320
Southbound Thru (Essen Ln)	7.1	A	505	555	-	-	-	-	-	-	-	-	6.2	A	110	263	-	-	-	-	640
Southbound Right (Essen Ln)	7.1	A	505	555	-	-	-	-	-	-	-	-	6.2	A	110	263	-	-	-	-	640
Eastbound Left (Margaret Ann Ave)	69.5	E	58	111	-	-	-	-	-	-	-	-	69.6	E	63	118	-	-	-	-	95
Eastbound Thru (Margaret Ann Ave)	17.0	B	1	41	-	-	-	-	-	-	-	-	15.9	B	1	43	-	-	-	-	95
Eastbound Right (Margaret Ann Ave)	17.0	B	1	41	-	-	-	-	-	-	-	-	15.9	B	1	43	-	-	-	-	95
Westbound Left (Margaret Ann Ave)	54.4	D	24	57	-	-	-	-	-	-	-	-	53.4	D	24	58	-	-	-	-	1000
Westbound Thru (Margaret Ann Ave)	54.4	D	24	57	-	-	-	-	-	-	-	-	53.4	D	24	58	-	-	-	-	1000
Westbound Right (Margaret Ann Ave)	38.6	D	95	149	-	-	-	-	-	-	-	-	37.4	D	98	150	-	-	-	-	1000
Overall	**14.7**	**B**			**-**	**-**			**-**	**-**			**13.0**	**B**			**-**	**-**			

m - indicates that upstream metering is in effect | # - indicates that the 95th percentile volume exceeds capacity | ~ - indicates that the volume exceeds capacity and queue is theoretically infinite

Table 8: Essen Lane Analysis Results Noon Continued

	2017 No Build				2017 Phase 1				2017 Build				2037 No Build				2037 Build				Available Storage Length (feet)
Hennessy Blvd / Summa Ave at Essen	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	
Northbound Left (Essen Ln)	38.2	D	57	m#91	28.4	C	38	m67	33.1	C	50	m#73	26.0	C	37	m63	47.0	D	22	m#81	1070
Northbound Thru (Essen Ln)	45.9	D	430	#534	26.1	C	390	449	41.5	D	~426	#534	35.1	D	441	#536	27.7	C	441	#453	1240
Northbound Right (Essen Ln)	45.9	D	430	#534	26.1	C	390	449	41.5	D	~426	#534	35.1	D	441	#536	27.7	C	441	#453	1240
Southbound Left (Essen Ln)	83.1	F	~176	#357	76.6	E	157	#328	66.6	E	135	#298	72.0	E	223	#371	83.6	F	178	m#328	610
Southbound Thru (Essen Ln)	30.5	C	364	262	30.2	C	192	280	32.1	C	239	297	33.1	C	292	403	15.6	B	168	273	770
Southbound Right (Essen Ln)	9.3	A	105	238	14.8	B	199	317	11.6	B	165	256	14.4	B	217	259	4.8	A	84	154	280
Eastbound Left (Hennessy)	45.6	D	232	301	54.4	D	247	320	45.5	D	232	301	69.3	E	284	#407	62.9	E	280	#395	2310
Eastbound Thru (Hennessy)	51.2	D	240	356	64.1	E	256	#414	51.1	D	240	356	84.1	F	292	#495	77.0	E	290	#487	2310
Eastbound Right (Hennessy)	18.7	B	37	73	18.4	B	39	75	19.0	B	37	73	19.5	B	44	86	31.4	C	65	114	2310
Westbound Left (Summa)	81.0	F	86	#181	87.6	F	82	#181	77.0	E	81	#168	104.8	F	94	#212	95.9	F	89	#197	1690
Westbound Thru (Summa)	79.1	E	88	#182	85.9	F	82	#181	75.5	E	81	#168	104.4	F	98	#217	95.8	F	92	#203	1690
Westbound Right (Summa)	33.7	C	82	150	36.3	D	87	144	31.8	C	76	134	35.7	D	101	172	39.7	D	98	#184	445
Overall	**40.3**	**D**			**36.8**	**D**			**38.2**	**D**			**43.6**	**D**			**35.0**	**D**			
Picardy Ave at Essen Ln																					
Northbound Left (Essen Ln)	68.8	E	116	185	68.8	E	116	185	68.8	E	116	185	76.8	E	129	#229	76.8	E	129	#229	375
Northbound Thru (Essen Ln)	21.3	C	238	324	20.9	C	236	319	21.0	C	241	325	25.6	C	301	371	25.4	C	303	378	375
Northbound Right (Essen Ln)	21.3	C	238	324	20.9	C	236	319	21.0	C	241	325	25.6	C	301	371	25.4	C	303	378	375
Southbound Left (Essen Ln)	38.0	D	56	m88	37.3	D	76	m101	32.3	C	68	m86	32.3	C	79	m105	36.2	D	72	m101	1010
Southbound Thru (Essen Ln)	12.6	B	108	189	6.5	A	45	64	6.5	A	56	88	8.4	A	68	106	12.6	B	112	136	1240
Southbound Right (Essen Ln)	12.6	B	108	189	6.5	A	45	64	6.5	A	56	88	8.4	A	68	106	12.6	B	112	136	1240
Eastbound Left (Picardy)	86.1	F	163	#250	82.8	F	167	#251	82.8	F	167	#251	87.6	F	175	#308	82.5	F	179	m304	300
Eastbound Thru (Picardy)	44.3	D	203	284	44.2	D	198	281	44.2	D	198	281	43.6	D	220	322	43.2	D	216	315	1890
Eastbound Right (Picardy)	44.3	D	203	284	44.2	D	198	281	44.2	D	198	281	43.6	D	220	322	43.2	D	216	315	1890
Westbound Left (Picardy)	79.7	E	57	#120	72.6	E	51	103	72.6	E	51	103	83.9	F	62	#146	72.1	E	54	#124	190
Westbound Thru (Picardy)	31.8	C	95	148	30.7	C	83	135	30.7	C	83	135	31.4	C	103	167	30.0	C	90	149	4360
Westbound Right (Picardy)	31.8	C	95	148	30.7	C	83	135	30.7	C	83	135	31.4	C	103	167	30.0	C	90	149	4360
Overall	**27.1**	**C**			**24.0**	**C**			**23.8**	**C**			**27.2**	**C**			**28.0**	**C**			
Staring Ln / Perkins Rd at Essen Ln																					
Northbound Left (Staring)	149.1	F	~260	#452	151.0	F	~261	#453	151.0	F	~261	#453	213.8	F	~275	#460	213.8	F	~275	#460	930
Northbound Thru (Staring)	98.4	F	428	#571	105.2	F	~447	#583	107.6	F	~458	#594	132.2	F	~464	#599	135.7	F	~471	#606	3502
Northbound Right (Staring)	98.4	F	428	#571	105.2	F	~447	#583	107.6	F	~458	#594	132.2	F	~464	#599	135.7	F	~471	#606	3502
Southbound Left (Essen Ln)	145.3	F	~456	#679	145.2	F	~456	#679	151.4	F	~470	#693	184.6	F	~461	#679	193.1	F	~475	#695	900
Southbound Thru (Essen Ln)	83.6	F	561	#701	88.6	F	565	#714	92.5	F	~581	#734	103.6	F	~584	#723	109.6	F	~604	#742	900
Southbound Right (Essen Ln)	27.2	C	172	306	27.8	C	173	309	28.6	C	181	318	28.1	C	177	318	29.1	C	185	330	900
Eastbound Left (Perkins)	157.8	F	~356	#479	141.4	F	~344	#468	144.5	F	~350	#474	183.2	F	~352	#473	188.2	F	~358	#479	300
Eastbound Thru (Perkins)	58.1	E	541	624	57.3	E	540	618	57.3	E	540	618	58.0	E	534	#647	58.0	E	534	#647	2065
Eastbound Right (Perkins)	58.1	E	541	624	57.3	E	540	618	57.3	E	540	618	58.0	E	534	#647	58.0	E	534	#647	2065
Westbound Left (Perkins)	85.2	F	193	#315	83.9	F	192	#315	83.9	F	192	#315	82.0	F	180	#296	82.0	F	180	#296	5790
Westbound Thru (Perkins)	138.9	F	~1072	#1212	138.9	F	~1072	#1212	140.4	F	~1077	#1216	188.2	F	~1080	#1220	189.6	F	~1084	#1224	6775
Westbound Right (Perkins)	138.9	F	~1072	#1212	138.9	F	~1072	#1212	140.4	F	~1077	#1216	188.2	F	~1080	#1220	189.6	F	~1084	#1224	6775
Overall	**104.3**	**F**			**104.4**	**F**			**106.4**	**F**			**131.4**	**F**			**134.2**	**F**			

m - indicates that upstream metering is in effect | # - indicates that the 95th percentile volume exceeds capacity | ~ - indicates that the volume exceeds capacity and queue is theoretically infinite

Table 9: Essen Lane Analysis Results PM

	2017 No Build				2017 Phase 1				2017 Build				2037 No Build				2037 Build				Available Storage Length (feet)
I-12 EB Off Ramp at Essen Ln	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	
Northbound Thru (Essen Ln)	3.1	A	100	m99	3.1	A	100	m99	3.0	A	101	m98	4.7	A	153	m158	4.7	A	153	m157	425
Southbound Thru (Essen Ln)	6.1	A	144	217	6.1	A	144	217	6.2	A	150	224	6.3	A	161	227	6.4	A	166	234	1345
Eastbound Left (I-12 EB Off Ramp)	65.4	E	109	173	65.4	E	109	173	65.8	E	111	176	67.8	E	115	185	67.8	E	115	185	190
Eastbound Right (I-12 EB Off Ramp)	45.8	D	76	141	45.8	D	76	141	44.9	D	74	137	47.7	D	82	149	48.0	D	83	151	1160
Overall	**10.1**	**B**			**10.2**	**B**			**10.2**	**B**			**11.3**	**B**			**11.3**	**B**			
Archives Ave at Essen Ln																					
Northbound Left (Essen Ln)	2.0	A	1	m1	2.0	A	1	m1	2.0	A	1	m1	1.9	A	1	m1	1.9	A	1	m1	175
Northbound Thru (Essen Ln)	10.8	B	91	m#139	9.3	A	66	m#135	9.5	A	73	m#120	10.6	B	74	m89	11.1	B	82	m89	460
Northbound Right (Essen Ln)	10.8	B	91	m#139	9.3	A	66	m#135	9.5	A	73	m#120	10.6	B	74	m89	11.1	B	82	m89	460
Southbound Left (Essen Ln)	12.5	B	4	m29	12.5	B	4	m29	12.5	B	4	29	11.2	B	3	m27	11.3	B	3	m25	175
Southbound Thru (Essen Ln)	6.6	A	73	191	6.6	A	73	191	6.4	A	74	190	5.2	A	55	165	4.9	A	56	163	395
Southbound Right (Essen Ln)	6.6	A	73	191	6.6	A	73	191	6.4	A	74	190	5.2	A	55	165	4.9	A	56	163	395
Eastbound Left (Sholar Dr)	48.9	D	45	90	48.9	D	45	90	49.2	D	45	90	52.9	D	48	96	53.8	D	48	96	100
Eastbound Thru (Sholar Dr)	0.2	A	0	0	0.2	A	0	0	0.2	A	0	0	0.2	A	0	0	0.3	A	0	0	690
Eastbound Right (Sholar Dr)	0.2	A	0	0	0.2	A	0	0	0.2	A	0	0	0.2	A	0	0	0.3	A	0	0	690
Westbound Left (Archives Ave)	48.2	D	82	146	54.7	D	82	146	55.4	E	85	148	60.9	E	90	#158	63.2	E	92	#167	135
Westbound Thru (Archives Ave)	2.0	A	82	146	54.7	D	82	146	55.4	E	85	148	57.5	E	90	#158	63.2	E	92	#167	600
Westbound Right (Archives Ave)	10.8	B	273	388	48.2	D	273	388	48.4	D	273	388	1.9	A	305	#478	58.3	E	305	#478	600
Overall	**14.6**	**B**			**13.6**	**B**			**13.7**	**B**			**15.1**	**B**			**15.4**	**B**			
United Plaza Blvd North at Essen Ln																					
Northbound Thru (Essen Ln)	24.7	C	~790	#879	21.2	C	~667	#853	23.1	C	~779	#865	26.6	C	~818	#899	28.0	C	~829	915	965
Northbound Right (Essen Ln)	0.4	A	1	m1	0.3	A	0	m0	0.3	A	0	m0	0.4	A	1	m0	0.4	A	1	m0	965
Southbound Left (Essen Ln)	22.9	C	10	m28	24.1	C	10	m31	23.5	C	10	m30	26.0	C	10	m36	25.8	C	10	m35	165
Southbound Thru (Essen Ln)	9.7	A	185	142	9.0	A	185	58	9.4	A	190	61	9.2	A	175	62	9.5	A	180	63	485
Westbound Left (United Plaza)	64.9	E	354	#531	69.1	E	359	#555	70.6	E	373	#577	90.7	F	~428	#642	97.6	F	~449	#663	1950
Westbound Right (United Plaza)	6.5	A	5	32	7.2	A	6	35	7.2	A	6	35	9.4	A	12	43	9.4	A	12	43	1950
Overall	**24.2**	**C**			**22.5**	**C**			**23.9**	**C**			**28.1**	**C**			**29.7**	**C**			
United Plaza Blvd South at Essen Ln																					
Northbound Thru (Essen Ln)	16.3	B	142	394	13.4	B	93	427	14.8	B	116	465	11.6	B	96	374	12.0	B	96	418	740
Northbound Right (Essen Ln)	16.3	B	142	394	13.4	B	93	427	14.8	B	116	465	11.6	B	96	374	12.0	B	96	418	740
Southbound Left (Essen Ln)	39.0	D	65	m122	37.8	D	64	m118	37.7	D	64	m118	55.4	E	73	m#144	55.4	E	73	m143	165
Southbound Thru (Essen Ln)	5.5	A	202	161	5.6	A	202	178	5.9	A	208	m191	5.8	A	189	m190	6.1	A	200	m205	905
Westbound Left (United Plaza)	56.5	E	230	298	56.5	E	230	298	57.4	E	239	308	60.3	E	250	#345	61.2	E	260	#363	2150
Westbound Right (United Plaza)	38.4	D	215	318	37.2	D	212	313	36.9	D	212	313	44.6	D	245	359	44.0	D	245	359	105
Overall	**20.3**	**C**			**18.8**	**B**			**19.6**	**B**			**19.5**	**B**			**19.8**	**B**			
I-10 WB at Essen Ln																					
Northbound Left (Essen Ln)	52.8	D	270	m343	38.6	D	236	m285	40.7	D	245	m285	48.7	D	264	m331	52.3	D	276	m332	310
Northbound Thru (Essen Ln)	7.4	A	6	6	8.9	A	4	m4	10.9	B	4	m4	2.6	A	3	3	3.1	A	3	m3	310
Southbound Thru (Essen Ln)	37.3	D	466	480	35.5	D	462	481	35.8	D	478	499	31.5	C	245	259	32.2	C	257	271	725
Southbound Right (Essen Ln)	37.3	D	466	480	35.5	D	462	481	35.8	D	478	499	31.5	C	245	259	32.2	C	257	271	285
Westbound Left (WB I-10 Ramp)	51.3	D	85	148	63.0	E	89	155	63.5	E	91	158	98.9	F	97	#211	102.7	F	100	m221	1960
Westbound Thru (WB I-10 Ramp)	51.3	D	85	148	63.0	E	89	155	63.8	E	91	158	100.2	F	97	#215	102.7	F	100	m221	5200
Westbound Right (WB I-10 Ramp)	0.4	A	0	0	0.4	A	0	0	0.4	A	0	0	0.4	A	0	0	0.4	A	0	0	5200
Overall	**27.3**	**C**			**25.4**	**C**			**26.6**	**C**			**24.9**	**C**			**26.1**	**C**			

m - indicates that upstream metering is in effect | # - indicates that the 95th percentile volume exceeds capacity | ~ - indicates that the volume exceeds capacity and queue is theoretically infinite

Table 10: Essen Lane Analysis Results PM Continued

	2017 No Build				2017 Phase 1				2017 Build				2037 No Build				2037 Build				Available Storage Length (feet)
I-10 EB at Essen Ln	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	
Northbound Thru (Essen Ln)	25.3	C	531	647	16.9	B	535	524	16.6	B	421	m539	26.3	C	539	510	31.5	C	575	m499	600
Northbound Right (Essen Ln)	25.3	C	531	647	16.9	B	535	524	16.6	B	421	m539	26.3	C	539	510	31.5	C	575	m499	600
Southbound Left (Essen Ln)	36.7	D	184	m#284	19.3	B	136	174	19.2	B	130	m175	33.1	C	214	300	32.3	C	206	m296	305
Southbound Thru (Essen Ln)	12.8	B	203	275	10.3	B	176	250	11.7	B	205	277	10.6	B	180	252	12.0	B	211	283	305
Eastbound Left (EB I-10 Ramp)	52.0	D	7	25	59.6	E	7	26	59.6	E	7	26	60.1	E	8	27	60.1	E	8	27	1620
Eastbound Thru (EB I-10 Ramp)	52.0	D	7	25	59.6	E	7	26	59.6	E	7	26	60.1	E	8	27	60.1	E	8	27	3335
Eastbound Right (EB I-10 Ramp)	1.0	A	0	0	1.0	A	0	0	1.1	A	0	0	1.2	A	0	0	1.2	A	0	0	3335
Overall	**20.2**	**C**			**13.6**	**B**			**13.8**	**B**			**19.9**	**B**			**22.8**	**C**			
Essen Park Ave at Essen Ln																					
Northbound Left (Essen Ln)	58.0	E	1	m0	50.0	D	1	m0	53.0	D	1	m0	67.0	E	0	m0	54.0	D	0	m1	50
Northbound Thru (Essen Ln)	16.4	B	231	m352	18.5	B	115	195	21.0	C	159	#262	52.5	D	~458	m#1053	59.5	E	~1059	m#351	580
Northbound Right (Essen Ln)	16.4	B	231	m352	18.5	B	115	195	21.0	C	159	#262	52.5	D	~458	m#1053	59.5	E	~1059	m#351	580
Southbound Left (Essen Ln)	82.7	F	62	m#134	108.7	F	64	#163	107.8	F	64	m#163	114.3	F	69	m#173	113.8	F	69	m#166	180
Southbound Thru (Essen Ln)	6.2	A	418	416	7.6	A	478	473	8.1	A	482	478	11.3	B	517	512	11.3	B	523	517	610
Southbound Right (Essen Ln)	6.2	A	418	416	7.6	A	478	473	8.1	A	482	478	11.3	B	517	512	11.3	B	523	517	610
Eastbound Left (Essen Park)	42.5	D	14	43	40.2	D	13	42	40.2	D	13	42	40.0	D	15	44	40.0	D	15	44	1300
Eastbound Thru (Essen Park)	42.5	D	14	43	40.2	D	13	42	40.2	D	13	42	40.0	D	15	44	40.0	D	15	44	1300
Eastbound Right (Essen Park)	42.5	D	14	43	40.2	D	13	42	40.2	D	13	42	40.0	D	15	44	40.0	D	15	44	1300
Westbound Left (Essen Park)	72.9	E	64	#134	63.6	E	62	117	65.4	E	66	#124	61.8	E	66	122	63.1	E	69	127	110
Westbound Thru (Essen Park)	72.9	E	64	#134	63.6	E	62	117	65.4	E	66	#124	61.8	E	66	122	63.1	E	69	127	2000
Westbound Right (Essen Park)	57.7	E	187	#300	56.2	E	187	#300	56.2	E	187	#300	56.4	E	199	#318	56.4	E	199	318	2000
Overall	**16.0**	**B**			**17.9**	**B**			**19.3**	**B**			**37.6**	**D**			**41.2**	**D**			
Dijon Ave/Dijon Extension at Essen Ln																					
Northbound Left (Essen Ln)	-	-	-	-	52.8	D	101	m117	49.5	D	100	m112	-	-	-	-	48.7	D	101	m112	510
Northbound Thru (Essen Ln)	-	-	-	-	21.4	C	411	m829	28.0	C	741	m#851	-	-	-	-	30.2	C	686	m#894	1025
Northbound Right (Essen Ln)	-	-	-	-	8.4	A	17	m18	10.9	B	28	m30	-	-	-	-	10.8	B	29	m29	1025
Southbound Left (Essen Ln)	-	-	-	-	128.8	F	114	#239	114.3	F	168	#344	-	-	-	-	139.7	F	~204	#370	350
Southbound Thru (Essen Ln)	-	-	-	-	12.9	B	139	127	14.1	B	139	142	-	-	-	-	14.8	B	145	149	425
Southbound Right (Essen Ln)	-	-	-	-	12.9	B	139	127	14.1	B	139	142	-	-	-	-	14.8	B	145	149	425
Eastbound Left (Dijon)	-	-	-	-	44.5	D	86	118	45.5	D	86	122	-	-	-	-	46.1	D	93	127	1000
Eastbound Thru (Dijon)	-	-	-	-	23.3	C	1	72	27.1	C	8	83	-	-	-	-	26.3	C	10	86	1000
Eastbound Right (Dijon)	-	-	-	-	23.3	C	1	72	27.1	C	8	83	-	-	-	-	26.3	C	10	86	115
Westbound Left (Dijon Ext)	-	-	-	-	57.9	E	44	73	60.0	E	43	73	-	-	-	-	62.9	E	44	75	300
Westbound Thru (Dijon Ext)	-	-	-	-	0.4	A	0	0	0.5	A	0	0	-	-	-	-	62.9	E	44	75	1000
Westbound Right (Dijon Ext)	-	-	-	-	0.4	A	0	0	0.5	A	0	0	-	-	-	-	0.5	A	0	0	1000
Overall	**-**	**-**			**21.6**	**C**			**25.6**	**C**			**-**	**-**			**27.7**	**C**			
Margaret Ann Ave at Essen Ln																					
Northbound Left (Essen Ln)	64.8	E	22	m24	-	-	-	-	-	-	-	-	62.3	E	25	m24	-	-	-	-	490
Northbound Thru (Essen Ln)	28.8	C	798	m845	-	-	-	-	-	-	-	-	51.5	D	829	m823	-	-	-	-	980
Northbound Right (Essen Ln)	0.5	A	0	m0	-	-	-	-	-	-	-	-	0.2	A	0	m0	-	-	-	-	980
Southbound Left (Essen Ln)	103.2	F	144	#298	-	-	-	-	-	-	-	-	80.5	F	141	#282	-	-	-	-	320
Southbound Thru (Essen Ln)	2.6	A	48	56	-	-	-	-	-	-	-	-	3.7	A	39	53	-	-	-	-	640
Southbound Right (Essen Ln)	2.6	A	48	56	-	-	-	-	-	-	-	-	3.7	A	39	53	-	-	-	-	640
Eastbound Left (Margaret Ann Ave)	86.6	F	105	#217	-	-	-	-	-	-	-	-	94.1	F	112	#233	-	-	-	-	95
Eastbound Thru (Margaret Ann Ave)	14.9	B	1	41	-	-	-	-	-	-	-	-	14.7	B	1	41	-	-	-	-	95
Eastbound Right (Margaret Ann Ave)	14.9	B	1	41	-	-	-	-	-	-	-	-	14.7	B	1	41	-	-	-	-	95
Westbound Left (Margaret Ann Ave)	55.3	E	45	91	-	-	-	-	-	-	-	-	55.1	E	44	89	-	-	-	-	1000
Westbound Thru (Margaret Ann Ave)	55.3	E	45	91	-	-	-	-	-	-	-	-	55.1	E	44	89	-	-	-	-	1000
Westbound Right (Margaret Ann Ave)	77.2	E	353	#567	-	-	-	-	-	-	-	-	67.7	E	352	#560	-	-	-	-	1000
Overall	**26.4**	**C**			**-**	**-**			**-**	**-**			**35.8**	**D**			**-**	**-**			

m - indicates that upstream metering is in effect | # - indicates that the 95th percentile volume exceeds capacity | ~ - indicates that the volume exceeds capacity and queue is theoretically infinite

Table 11: Essen Lane Analysis Results PM Continued

	2017 No Build				2017 Phase 1				2017 Build				2037 No Build				2037 Build				Available Storage Length (feet)
Hennessy Blvd / Summa Ave at Essen	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	
Northbound Left (Essen Ln)	45.5	D	29	m56	48.1	D	29	m56	47.3	D	29	m55	45.1	D	31	m52	46.4	D	31	m51	1070
Northbound Thru (Essen Ln)	46.9	D	427	#491	34.1	C	418	#312	40.2	D	434	#492	57.0	E	~455	#532	48.6	D	454	#529	1240
Northbound Right (Essen Ln)	46.9	D	427	#491	34.1	C	418	#312	40.2	D	434	#492	57.0	E	~455	#532	48.6	D	454	#529	1240
Southbound Left (Essen Ln)	120.4	F	~228	#419	97.9	F	193	m#290	102.0	F	189	m#288	122.1	F	~257	#442	92.6	F	194	m#267	610
Southbound Thru (Essen Ln)	34.0	C	279	331	30.7	C	228	353	31.9	C	222	375	39.9	D	299	382	33.6	C	232	429	770
Southbound Right (Essen Ln)	9.4	A	110	150	9.9	A	91	m159	10.6	B	88	m147	11.2	B	116	199	9.7	A	232	149	280
Eastbound Left (Hennessy)	76.8	E	336	#480	68.0	E	331	#466	76.2	E	335	#478	83.2	F	355	#500	72.3	E	354	#497	2310
Eastbound Thru (Hennessy)	86.4	F	334	#557	78.8	E	331	#549	87.6	F	336	#561	90.1	F	351	#576	83.1	F	353	#581	2310
Eastbound Right (Hennessy)	28.3	C	79	130	28.7	C	81	132	29.2	C	81	130	28.8	C	88	140	29.2	C	88	140	2310
Westbound Left (Summa)	74.3	E	88	#175	88.6	F	83	#182	70.5	E	81	#158	132.1	F	95	#225	114.6	F	88	#204	1690
Westbound Thru (Summa)	74.4	E	90	#180	88.6	F	84	#183	70.2	E	83	#158	135.7	F	100	#231	117.8	F	91	#210	1690
Westbound Right (Summa)	107.0	F	162	#356	77.6	E	163	#357	59.3	E	138	#316	110.5	F	~249	#440	91.7	F	~214	#401	445
Overall	**55.7**	**E**			**46.7**	**D**			**48.7**	**D**			**63.8**	**E**			**53.6**	**D**			
Picardy Ave at Essen Ln																					
Northbound Left (Essen Ln)	31.6	C	37	81	32.0	C	37	81	31.5	C	37	81	39.9	D	40	#95	39.5	D	39	#93	375
Northbound Thru (Essen Ln)	26.8	C	260	362	27.3	C	262	362	26.8	C	266	369	28.3	C	285	378	28.3	C	292	385	375
Northbound Right (Essen Ln)	26.8	C	260	362	27.3	C	262	362	26.8	C	266	369	28.3	C	285	378	28.3	C	292	385	375
Southbound Left (Essen Ln)	11.3	B	23	m19	10.6	B	25	m17	11.1	B	25	m17	12.2	B	28	m19	11.8	B	25	m17	1010
Southbound Thru (Essen Ln)	12.0	B	165	115	11.5	B	186	111	12.2	B	192	110	12.9	B	197	m120	12.6	B	188	116	1240
Southbound Right (Essen Ln)	12.0	B	165	115	11.5	B	186	111	12.2	B	192	110	12.9	B	197	m120	12.6	B	188	116	1240
Eastbound Left (Picardy)	50.9	D	121	183	47.8	D	124	182	47.8	D	124	182	50.8	D	128	196	49.1	D	133	199	300
Eastbound Thru (Picardy)	53.9	D	260	350	53.5	D	254	344	53.5	D	254	344	55.1	E	279	382	54.5	D	273	373	1890
Eastbound Right (Picardy)	53.9	D	260	350	53.5	D	254	344	53.5	D	254	344	55.1	E	279	382	54.5	D	273	373	1890
Westbound Left (Picardy)	164.6	F	~58	#142	102.8	F	39	#101	102.8	F	39	#101	201.8	F	~68	#160	125.0	F	43	#117	190
Westbound Thru (Picardy)	27.6	C	74	122	23.7	C	50	92	23.7	C	50	92	27.4	C	77	129	22.8	C	55	101	4360
Westbound Right (Picardy)	27.6	C	74	122	23.7	C	50	92	23.7	C	50	92	27.4	C	77	129	22.8	C	55	101	4360
Overall	**25.4**	**C**			**23.6**	**C**			**23.8**	**C**			**27.2**	**C**			**25.1**	**C**			
Staring Ln / Perkins Rd at Essen Ln																					
Northbound Left (Staring)	168.1	F	~241	#439	168.1	F	~241	#439	168.1	F	~241	#439	199.6	F	~293	#498	199.6	F	~293	#498	930
Northbound Thru (Staring)	62.7	E	289	#369	62.7	E	289	#369	64.0	E	296	#391	68.2	E	~332	#431	70.1	E	341	#446	3502
Northbound Right (Staring)	62.7	E	289	#369	62.7	E	289	#369	64.0	E	296	#391	68.2	E	~332	#431	70.1	E	341	#446	3502
Southbound Left (Essen Ln)	182.9	F	~481	#701	182.9	F	~481	#701	181.8	F	~479	#699	213.1	F	~572	#800	212.0	F	~569	#798	900
Southbound Thru (Essen Ln)	81.6	F	~555	#693	81.6	F	~555	#693	81.9	F	~556	#694	93.9	F	~652	#792	94.1	F	~653	#793	900
Southbound Right (Essen Ln)	65.3	E	~470	#719	65.3	E	~470	#719	64.2	E	~446	#711	79.8	E	~581	#835	78.4	E	~574	#827	900
Eastbound Left (Perkins)	170.6	F	~321	#440	170.6	F	~321	#440	179.5	F	~332	#451	181.5	F	~369	#491	191.8	F	~382	#506	300
Eastbound Thru (Perkins)	147.1	F	~871	#1013	147.1	F	~871	#1013	147.1	F	~871	#1013	173.9	F	~1026	#1167	173.9	F	~1026	#1167	2065
Eastbound Right (Perkins)	147.1	F	~871	#1013	147.1	F	~871	#1013	147.1	F	~871	#1013	173.9	F	~1026	#1167	173.9	F	~1026	#1167	2065
Westbound Left (Perkins)	176.4	F	~198	#355	176.4	F	~198	#355	176.4	F	~198	#355	196.8	F	~232	#396	196.8	F	~232	#396	5790
Westbound Thru (Perkins)	101.1	F	~615	#756	101.1	F	~615	#756	102.7	F	~620	#761	127.7	F	~735	#877	129.8	F	~741	#884	6775
Westbound Right (Perkins)	101.1	F	~615	#756	101.1	F	~615	#756	102.7	F	~620	#761	127.7	F	~735	#877	129.8	F	~741	#884	6775
Overall	**116.9**	**F**			**116.9**	**F**			**117.9**	**F**			**136.7**	**F**			**137.9**	**F**			

m - indicates that upstream metering is in effect | # - indicates that the 95th percentile volume exceeds capacity | ~ - indicates that the volume exceeds capacity and queue is theoretically infinite

Table 12: Bluebonnet Boulevard Analysis Results AM

	2015 Existing				2017 No Build				2017 Build				2037 No Build				2037 Build				Available Storage Length (feet)
Oliphant Rd at Bluebonnet Blvd	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	
Northbound Left (Bluebonnet)	15.9	B	0	m24	6.1	A	13	m4	7.8	A	0	m8	15.3	B	0	m22	22.9	C	0	m#40	140
Northbound Thru (Bluebonnet)	3.7	A	2	18	3.1	A	154	28	1.8	A	2	38	1.7	A	2	28	3.5	A	2	276	1735
Northbound Right (Bluebonnet)	0.1	A	0	m1	0.1	A	1	m0	0.1	A	0	m1	0.1	A	0	m0	0.2	A	0	m0	185
Southbound Left (Bluebonnet)	3.7	A	1	5	3.0	A	1	4	3.2	A	1	4	3.7	A	1	5	3.8	A	1	5	140
Southbound Thru (Bluebonnet)	6.2	A	224	355	4.6	A	172	278	5.4	A	190	303	6.2	A	224	355	6.7	A	243	388	2420
Southbound Right (Bluebonnet)	1.0	A	0	6	0.9	A	0	5	0.9	A	0	5	1.0	A	0	6	1.1	A	0	6	160
Eastbound Left (Oliphant)	50.9	D	52	104	44.6	D	39	89	46.8	D	43	94	50.9	D	52	104	52.7	D	56	109	620
Eastbound Thru (Oliphant)	50.9	D	52	104	44.6	D	39	89	46.8	D	43	94	50.9	D	52	104	52.7	D	56	109	620
Eastbound Right (Oliphant)	50.9	D	52	104	44.6	D	39	89	46.8	D	43	94	50.9	D	52	104	52.7	D	56	109	620
Westbound Left (Oliphant)	42.5	D	25	66	44.8	D	24	63	44.0	D	24	64	42.5	D	25	66	42.4	D	26	67	1350
Westbound Thru (Oliphant)	42.5	D	25	66	44.8	D	24	63	44.0	D	24	64	42.5	D	25	66	42.4	D	26	67	1350
Westbound Right (Oliphant)	42.5	D	25	66	44.8	D	24	63	44.0	D	24	64	42.5	D	25	66	42.4	D	26	67	1350
Overall	**6.9**	**A**			**5.5**	**A**			**5.5**	**A**			**6.0**	**A**			**7.3**	**A**			
Gail Dr at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	0.7	A	1	m0	2.5	A	2	m0	2.4	A	2	m0	1.4	A	2	m0	1.1	A	1	m0	130
Northbound Thru (Bluebonnet)	6.8	A	198	m38	8.6	A	377	54	7.8	A	341	m57	4.5	A	206	m22	3.7	A	138	m21	920
Northbound Right (Bluebonnet)	0.2	A	0	m0	1.1	A	2	m0	1.0	A	2	m0	0.3	A	1	m0	0.1	A	1	m0	155
Southbound Left (Bluebonnet)	4.0	A	0	m0	3.0	A	0	m0	3.0	A	0	m0	4.0	A	0	m0	4.0	A	0	m0	145
Southbound Thru (Bluebonnet)	8.7	A	343	712	8.0	A	368	532	7.1	A	300	555	8.7	A	380	668	9.5	A	408	798	1700
Southbound Right (Bluebonnet)	0.0	A	0	m0	0.2	A	0	m0	0.2	A	0	m0	0.0	A	0	m0	0.0	A	0	m0	200
Eastbound Left (Gail)	39.1	D	17	55	39.3	D	16	52	38.5	D	16	52	39.1	D	17	55	38.3	D	17	55	1070
Eastbound Thru (Gail)	39.1	D	17	55	39.3	D	16	52	38.5	D	16	52	39.1	D	17	55	38.3	D	17	55	1070
Eastbound Right (Gail)	39.1	D	17	55	39.3	D	16	52	38.5	D	16	52	39.1	D	17	55	38.3	D	17	55	1070
Westbound Left (Gail)	52.1	D	24	59	54.4	D	22	55	53.4	D	22	56	52.1	D	24	59	52.1	D	25	61	1250
Westbound Thru (Gail)	52.1	D	24	59	54.4	D	22	55	53.4	D	22	56	52.1	D	24	59	52.1	D	25	61	1250
Westbound Right (Gail)	52.1	D	24	59	54.4	D	22	55	53.4	D	22	56	52.1	D	24	59	52.1	D	25	61	1250
Overall	**8.5**	**A**			**9.1**	**A**			**8.2**	**A**			**7.5**	**A**			**7.6**	**A**			
Blue Cross Pkwy at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	21.4	C	18	19	10.5	B	9	m14	13.1	B	12	m13	16.0	B	10	m12	19.6	B	16	m17	425
Northbound Thru (Bluebonnet)	51.5	D	~786	831	22.8	C	542	m#739	20.9	C	~505	m#710	21.5	C	564	m566	29.2	C	535	m582	770
Northbound Right (Bluebonnet)	7.6	A	167	158	6.4	A	134	m84	5.8	A	60	m92	6.1	A	126	m123	8.5	A	103	m130	210
Southbound Left (Bluebonnet)	72.0	E	155	362	56.6	E	116	#292	57.3	E	119	#290	76.4	E	~158	#368	74.9	E	158	#364	500
Southbound Thru (Bluebonnet)	19.6	B	544	731	17.0	B	556	121	14.6	B	451	157	11.3	B	468	200	13.9	B	505	225	950
Southbound Right (Bluebonnet)	4.4	A	7	14	3.4	A	16	m9	3.0	A	14	m10	2.2	A	5	m9	2.6	A	3	m7	200
Eastbound Left (Blue Cross)	56.0	E	34	73	55.2	E	31	69	55.2	E	31	69	56.8	E	33	73	56.8	E	33	73	80
Eastbound Thru (Blue Cross)	42.2	D	13	33	43.0	D	12	32	40.8	D	12	32	43.7	D	13	34	41.1	D	13	34	300
Eastbound Right (Blue Cross)	42.2	D	13	33	43.0	D	12	32	40.8	D	12	32	43.7	D	13	34	41.1	D	13	34	300
Westbound Left (Blue Cross)	51.5	D	100	146	56.9	E	95	139	59.6	E	98	#152	74.5	E	108	#181	71.6	E	112	#214	230
Westbound Thru (Blue Cross)	44.2	D	12	35	48.8	D	11	34	48.7	D	11	34	52.5	D	13	38	51.9	D	13	38	1090
Westbound Right (Blue Cross)	25.3	C	8	25	27.1	C	8	25	27.1	C	8	25	31.5	C	9	28	31.4	C	9	28	1090
Overall	**34.9**	**C**			**22.8**	**C**			**21.5**	**C**			**22.8**	**C**			**26.5**	**C**			
I-10 WB at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	34.4	C	121	m139	47.6	D	100	#245	58.1	E	121	#192	41.6	D	110	m153	66.5	E	137	#250	290
Northbound Thru (Bluebonnet)	20.4	C	545	m736	20.3	C	687	#835	29.7	C	703	#849	24.4	C	764	#875	28.1	C	787	#893	290
Southbound Thru (Bluebonnet)	26.1	C	641	714	22.7	C	606	526	15.6	B	370	317	28.2	C	588	568	17.9	B	489	424	740
Southbound Right (Bluebonnet)	1.4	A	5	m9	1.7	A	7	13	15.6	B	370	317	1.6	A	6	m13	17.9	B	489	424	645
Westbound Left (WB I-10 Ramp)	126.8	F	~200	#367	61.7	E	160	231	51.3	D	162	253	92.7	F	182	#344	54.2	D	178	#275	2820
Westbound Thru (WB I-10 Ramp)	131.8	F	~206	#374	63.0	E	164	237	51.7	D	165	257	95.2	F	185	#351	54.7	D	182	#285	2820
Westbound Right (WB I-10 Ramp)	114.9	F	~554	#785	66.2	E	416	#595	43.9	D	380	#609	96.1	F	~534	#765	105.4	F	~544	#775	580
Overall	**43.9**	**D**			**31.8**	**C**			**30.7**	**C**			**41.0**	**D**			**39.5**	**D**			

m - indicates that upstream metering is in effect | # - indicates that the 95th percentile volume exceeds capacity | ~ - indicates that the volume exceeds capacity and queue is theoretically infinite

Table 13: Bluebonnet Boulevard Analysis Results AM Continued

	2015 Existing				2017 No Build				2017 Build				2037 No Build				2037 Build				Available Storage Length (feet)
I-10 EB at Bluebonnet Blvd	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	
Northbound Thru (Bluebonnet)	14.2	B	121	159	18.1	B	228	315	16.0	B	232	265	13.9	B	259	190	24.1	C	389	426	775
Northbound Right (Bluebonnet)	1.4	A	4	10	5.6	A	2	20	2.5	A	3	m7	4.2	A	8	19	8.5	A	15	m33	775
Southbound Left (Bluebonnet)	65.8	E	215	m#267	81.5	F	~214	m#320	35.6	D	103	m138	69.9	E	226	m#279	53.5	D	119	m#167	300
Southbound Thru (Bluebonnet)	49.1	D	240	m#785	25.9	C	154	#459	31.2	C	687	#826	52.3	D	407	m#824	61.5	E	~827	#943	300
Eastbound Left (EB I-10 Ramp)	118.8	F	~189	#354	59.7	E	153	224	48.9	D	146	230	87.2	F	175	#330	51.3	D	162	253	1925
Eastbound Thru (EB I-10 Ramp)	119.9	F	~190	#355	60.1	E	155	226	49.0	D	147	233	87.2	F	176	#331	51.3	D	163	253	1925
Eastbound Right (EB I-10 Ramp)	2.8	A	0	0	2.1	A	0	0	42.1	D	394	#546	2.9	A	0	0	74.1	E	460	#636	1925
Overall	**34.2**	**C**			**24.0**	**C**			**29.6**	**C**			**32.8**	**C**			**49.8**	**D**			
Mall Drive 1/Dijon Ext at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	0.0	A	0	0	0.0	A	0	0	41.5	D	89	m#284	0.0	A	0	0	57.6	E	101	m160	145
Northbound Thru (Bluebonnet)	3.9	A	94	m138	7.0	A	53	147	5.4	A	99	106	4.6	A	171	167	10.3	B	255	217	940
Northbound Right (Bluebonnet)	0.1	A	0	m0	0.0	A	0	m0	0.0	A	0	m0	0.0	A	0	m0	0.0	A	0	m0	255
Southbound Left (Bluebonnet)	48.0	D	12	m14	59.8	E	11	m13	54.4	D	11	m12	58.1	E	12	m14	58.5	E	13	m12	325
Southbound Thru (Bluebonnet)	8.5	A	538	m549	7.4	A	609	692	21.0	C	606	m527	10.0	B	710	m755	19.6	B	649	m708	750
Southbound Right (Bluebonnet)	0.0	A	0	m0	0.0	A	0	m0	3.3	A	36	m3	0.0	A	0	m0	6.3	A	41	m38	95
Eastbound Left (Dijon Extension)	62.0	E	24	57	58.3	E	21	51	68.5	E	90	153	58.8	E	24	56	69.4	E	98	#168	1300
Eastbound Thru (Dijon Extension)	0.8	A	0	0	0.5	A	0	0	22.8	C	20	77	0.5	A	0	0	13.5	B	1	57	1300
Eastbound Right (Dijon Extension)	0.8	A	0	0	0.5	A	0	0	22.8	C	20	77	0.5	A	0	0	13.5	B	1	57	1300
Westbound Right (Mall Drive 1)	3.2	A	0	0	1.3	A	0	0	2.1	A	0	0	1.5	A	0	0	2.0	A	0	0	220
Overall	**7.3**	**A**			**7.8**	**A**			**16.6**	**B**			**8.5**	**A**			**18.0**	**B**			
Mall Drive 1 at Mall Ring Rd																					
Northbound Left (Mall Ring Rd)	2.2	A	1	1	3.2	A	1	1	8.2	A	8	23	1.8	A	0	1	0.6	A	0	1	720
Northbound Thru (Mall Ring Rd)	1.6	A	4	1	2.8	A	1	5	7.4	A	20	42	1.5	A	1	1	0.7	A	1	2	720
Southbound Thru (Mall Ring Rd)	53.2	D	450	215	53.7	D	138	201	53.7	D	138	201	56.5	E	151	216	54.0	D	151	216	1150
Southbound Right (Mall Ring Rd)	6.3	A	0	19	6.4	A	0	18	5.4	A	0	16	6.0	A	0	18	4.9	A	0	17	1150
Easttbound Left (Mall Drive 1)	66.7	E	14	34	67.1	E	13	32	61.0	E	13	33	64.6	E	13	35	56.4	E	14	34	200
Eastbound Right (Mall Drive 1)	66.7	E	14	34	67.1	E	13	32	61.0	E	13	33	64.6	E	13	35	56.4	E	14	34	200
Overall	**41.5**	**D**			**42.1**	**D**			**41.9**	**D**			**43.0**	**D**			**40.1**	**D**			
Mall Drive 2/Picardy Ave at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	98.4	F	~211	#373	64.0	E	183	m#285	47.3	D	146	m#177	85.0	F	~187	m#270	55.1	E	148	m#189	235
Northbound Thru (Bluebonnet)	12.7	B	12	38	24.0	C	96	42	16.0	B	33	82	14.6	B	19	112	14.6	B	48	92	855
Northbound Right (Bluebonnet)	0.8	A	0	m0	1.0	A	1	m0	1.2	A	0	m0	1.5	A	0	m1	1.0	A	0	m0	250
Southbound Left (Bluebonnet)	63.1	E	19	m29	62.4	E	14	m26	75.0	E	16	m0	66.4	E	16	m25	65.0	E	16	m19	330
Southbound Thru (Bluebonnet)	14.7	B	174	217	27.1	C	250	401	30.5	C	269	#492	35.9	D	376	#592	21.0	C	356	409	970
Southbound Right (Bluebonnet)	35.7	D	285	#1017	23.8	C	212	#423	15.8	B	161	360	33.4	C	254	#1005	11.2	B	53	m174	195
Eastbound Left (Picardy)	180.5	F	~196	#297	40.1	D	124	172	39.0	D	106	150	40.9	D	137	187	44.3	D	123	171	355
Eastbound Thru (Picardy)	12.4	B	8	51	5.6	A	2	36	5.8	A	1	34	5.6	A	2	37	6.5	A	2	37	590
Eastbound Right (Picardy)	12.4	B	8	51	5.6	A	2	36	5.8	A	1	34	5.6	A	2	37	6.5	A	2	37	590
Westbound Left (Mall Drive 2)	65.4	E	27	52	59.1	E	25	49	55.8	E	25	49	59.3	E	27	52	62.4	E	27	52	300
Westbound Thru (Mall Drive 2)	97.1	F	66	#131	112.4	F	61	#130	86.6	F	52	#110	135.1	F	~69	#144	105.8	F	57	#123	300
Westbound Right (Mall Drive 2)	56.5	E	1	8	45.5	D	1	m7	41.8	D	16	44	45.5	D	1	m7	49.3	D	18	46	300
Overall	**37.4**	**D**			**30.3**	**C**			**26.2**	**C**			**34.3**	**C**			**22.9**	**C**			
Mall Drive 2 at Mall Ring Rd																					
Northbound Left (Mall Ring Rd)	19.4	B	84	177	31.5	C	95	170	31.3	C	101	171	32.7	C	111	183	29.6	C	109	182	950
Northbound Thru (Mall Ring Rd)	13.4	B	12	43	27.8	C	15	43	27.7	C	16	45	28.2	C	17	46	22.9	C	17	48	950
Southbound Thru (Mall Ring Rd)	4.0	A	9	16	9.2	A	8	14	6.0	A	8	14	13.1	B	22	16	15.5	B	122	23	720
Southbound Right (Mall Ring Rd)	0.1	A	0	0	0.1	A	0	0	0.1	A	0	0	0.2	A	0	0	0.1	A	0	0	720
Easttbound Left (Mall Drive 2)	77.2	E	30	m63	61.0	E	26	59	63.0	E	27	60	62.4	E	29	63	66.9	E	30	65	300
Eastbound Right (Mall Drive 2)	0.0	A	0	m0	0.1	A	0	0	0.1	A	0	0	0.0	A	0	0	0.0	A	0	0	300
Overall	**14.6**	**B**			**19.9**	**B**			**19.0**	**B**			**21.8**	**C**			**21.6**	**C**			

m - indicates that upstream metering is in effect | # - indicates that the 95th percentile volume exceeds capacity | ~ - indicates that the volume exceeds capacity and queue is theoretically infinite

Table 14: Bluebonnet Boulevard Analysis Results AM Continued

	2015 Existing				2017 No Build				2017 Build				2037 No Build				2037 Build				Available Storage Length (feet)
Mall Drive 3 at Bluebonnet Blvd	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	
Northbound Thru (Bluebonnet)	8.7	A	135	38	11.0	B	153	128	11.2	B	151	133	17.4	B	226	290	18.0	B	540	433	740
Northbound Right (Bluebonnet)	0.6	A	3	m1	0.5	A	0	m4	0.7	A	0	m5	0.2	A	0	m1	0.9	A	6	m6	170
Southbound Left (Bluebonnet)	78.4	E	47	m69	65.6	E	43	m55	70.2	E	46	m54	68.9	E	48	m57	84.1	F	50	m#61	345
Southbound Thru (Bluebonnet)	6.4	A	109	9	10.6	B	147	38	10.0	B	124	m34	11.9	B	132	m87	3.8	A	44	47	840
Westbound Left (Mall Drive 3)	26.7	C	37	76	18.0	B	33	53	16.8	B	30	40	18.7	B	41	56	22.5	C	40	58	155
Westbound Right (Mall Drive 3)	15.7	B	20	47	11.2	B	17	40	9.9	A	17	30	11.6	B	23	42	16.0	B	25	47	110
Overall	**9.1**	**A**			**11.6**	**B**			**11.4**	**B**			**14.9**	**B**			**11.5**	**B**			
Mall Drive 3 at Mall Ring Rd																					
Northbound Thru (Mall Ring Rd)	22.8	C	38	87	18.2	B	34	66	18.4	B	35	67	18.3	B	37	71	18.6	B	38	73	2350
Northbound Right (Mall Ring Rd)	22.8	C	38	87	18.2	B	34	66	18.4	B	35	67	18.3	B	37	71	18.6	B	38	73	2350
Southbound Left (Mall Drive 3)	59.8	E	56	m109	50.4	D	49	99	51.9	D	51	m98	44.7	D	50	m90	53.3	D	58	m97	150
Southbound Thru (Mall Drive 3)	56.6	E	55	m108	48.3	D	48	97	49.3	D	49	m69	42.1	D	49	m89	50.4	D	56	m96	150
Westbound Left (Mall Ring Rd)	1.0	A	4	2	1.4	A	3	2	3.9	A	4	15	1.8	A	2	6	1.7	A	2	2	950
Westbound Right (Mall Ring Rd)	0.1	A	0	0	0.1	A	0	0	0.5	A	0	6	0.2	A	0	0	0.4	A	0	0	950
Overall	**24.8**	**C**			**20.5**	**C**			**21.6**	**C**			**19.2**	**B**			**21.6**	**C**			
Anselmo Ln at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	68.9	E	49	98	75.7	E	46	#109	75.7	E	46	#109	78.6	E	50	#123	75.4	E	50	#111	380
Northbound Thru (Bluebonnet)	18.8	B	437	527	18.2	B	402	443	18.1	B	418	482	18.4	B	431	515	17.6	B	434	523	2460
Northbound Right (Bluebonnet)	18.8	B	437	527	18.2	B	402	443	18.1	B	418	482	18.4	B	431	515	17.6	B	434	523	2460
Southbound Left (Bluebonnet)	45.5	D	46	m#92	33.3	C	41	m68	36.6	D	43	m69	45.1	D	49	m79	41.7	D	44	m70	135
Southbound Thru (Bluebonnet)	10.4	B	204	264	8.3	A	192	191	9.7	A	0	237	10.3	B	169	233	9.8	A	150	225	765
Southbound Right (Bluebonnet)	3.0	A	67	73	2.8	A	88	35	2.4	A	73	41	3.6	A	45	114	1.7	A	20	44	170
Eastbound Left (Anselmo)	62.7	E	67	#131	64.5	E	62	#118	62.4	E	63	118	62.9	E	67	125	78.9	E	71	#160	480
Eastbound Thru (Anselmo)	62.8	E	67	#132	64.5	E	62	#120	62.5	E	64	120	62.9	E	68	125	78.2	E	71	#158	2650
Eastbound Right (Anselmo)	37.4	D	26	59	39.7	D	25	56	38.8	D	25	56	38.8	D	27	60	40.3	D	27	61	500
Westbound Left (Anselmo)	51.4	D	13	36	53.1	D	12	36	53.1	D	12	36	54.9	D	13	37	55.1	E	13	37	150
Westbound Thru (Anselmo)	23.3	C	3	34	24.9	C	3	34	25.0	C	3	35	25.9	C	3	35	25.5	C	3	36	1065
Westbound Right (Anselmo)	23.3	C	3	34	24.9	C	3	34	25.0	C	3	35	25.9	C	3	35	25.5	C	3	36	1065
Overall	**17.0**	**B**			**15.8**	**B**			**16.3**	**B**			**17.1**	**B**			**16.9**	**B**			
Park Rowe Ave at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	77.6	E	51	m59	89.8	F	49	m56	71.2	E	43	m49	89.6	F	52	m57	91.7	F	53	m56	170
Northbound Thru (Bluebonnet)	38.9	D	681	m164	23.7	C	451	m213	67.4	E	822	m874	29.5	C	566	m181	28.4	C	544	m193	560
Northbound Right (Bluebonnet)	16.3	B	59	m17	12.8	B	39	m22	10.6	B	19	m66	13.0	B	48	m18	12.5	B	44	m19	170
Southbound Left (Bluebonnet)	71.4	E	213	#398	86.9	F	202	253	86.9	F	208	259	86.4	F	222	274	86.7	F	227	281	180
Southbound Thru (Bluebonnet)	14.2	B	431	403	13.7	B	344	501	14.2	B	360	526	14.2	B	410	516	14.7	B	432	537	2420
Southbound Right (Bluebonnet)	14.2	B	431	403	13.7	B	344	501	14.2	B	360	526	14.2	B	410	516	14.7	B	432	537	2420
Eastbound Left (Park Rowe)	110.3	F	76	#163	102.8	F	70	122	102.9	F	73	126	108.6	F	76	134	109.6	F	81	140	270
Eastbound Thru (Park Rowe)	42.3	D	19	65	41.1	D	18	60	40.6	D	18	60	41.1	D	19	63	40.7	D	19	63	270
Eastbound Right (Park Rowe)	42.3	D	19	65	41.1	D	18	60	40.6	D	18	60	41.1	D	19	63	40.7	D	19	63	270
Westbound Left (Park Rowe)	64.3	E	29	65	61.3	E	28	57	60.8	E	27	57	63.3	E	29	63	63.0	E	29	63	500
Westbound Thru (Park Rowe)	64.3	E	29	65	61.3	E	28	57	60.8	E	27	57	63.3	E	29	63	63.0	E	29	63	500
Westbound Right (Park Rowe)	40.3	D	18	49	36.9	D	18	37	36.3	D	19	38	37.1	D	19	42	36.8	D	20	43	125
Overall	**34.2**	**C**			**29.2**	**C**			**47.6**	**D**			**32.0**	**C**			**31.7**	**C**			
Perkins Rd at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	59.4	E	117	171	62.2	E	109	164	62.7	E	109	164	61.1	E	119	175	62.0	E	120	176	365
Northbound Thru (Bluebonnet)	91.6	F	~1031	#1170	73.4	E	~893	#1120	106.1	F	~948	#1167	73.2	E	~971	#1109	81.1	F	~1025	#1163	3690
Northbound Right (Bluebonnet)	91.6	F	~1031	#1170	73.4	E	~893	#1120	106.1	F	~948	#1167	73.2	E	~971	#1109	81.1	F	~1025	#1163	3690
Southbound Left (Bluebonnet)	98.6	F	111	184	97.2	F	98	170	74.2	E	119	164	140.3	F	~124	#232	148.9	F	~140	#244	265
Southbound Thru (Bluebonnet)	55.5	E	538	391	55.4	E	478	396	58.3	E	516	166	58.6	E	532	472	59.0	E	542	478	575
Southbound Right (Bluebonnet)	14.7	B	88	102	21.3	C	76	152	26.5	C	149	256	26.0	C	86	193	26.4	C	86	195	195
Eastbound Left (Perkins)	86.4	F	88	130	97.4	F	81	#128	250.7	F	86	#138	141.2	F	91	#172	152.2	F	~98	#183	415
Eastbound Thru (Perkins)	74.5	E	449	#554	79.0	E	415	468	79.0	E	415	468	97.7	F	~468	#614	97.7	F	~468	#614	6800
Eastbound Right (Perkins)	16.4	B	18	40	16.7	B	16	34	16.8	B	16	34	18.1	B	18	41	18.4	B	18	42	315
Westbound Left (Perkins)	264.1	F	~288	#400	95.7	F	195	#275	95.7	F	195	#275	126.9	F	~228	#340	126.9	F	~228	#340	610
Westbound Thru (Perkins)	94.0	F	~538	#686	64.1	E	449	498	64.1	E	449	498	71.6	E	508	#621	71.6	E	508	#621	960
Westbound Right (Perkins)	38.4	D	122	184	32.4	C	104	148	33.0	C	118	166	37.1	D	122	184	37.7	D	138	205	355
Overall	**88.2**	**F**			**68.4**	**E**			**81.7**	**F**			**77.9**	**E**			**80.9**	**F**			

m - indicates that upstream metering is in effect | # - indicates that the 95th percentile volume exceeds capacity | ~ - indicates that the volume exceeds capacity and queue is theoretically infinite

Table 15: Bluebonnet Boulevard Analysis Results Noon

	2015 Existing				2017 No Build				2017 Build				2037 No Build				2037 Build				Available Storage Length (feet)
Oliphant Rd at Bluebonnet Blvd	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	
Northbound Left (Bluebonnet)	1.4	A	1	1	2.0	A	1	m2	2.6	A	1	m12	4.3	A	2	m27	4.8	A	2	m29	140
Northbound Thru (Bluebonnet)	0.8	A	50	27	1.4	A	11	16	2.4	A	11	280	3.2	A	33	628	3.4	A	33	650	1735
Northbound Right (Bluebonnet)	0.1	A	0	m1	0.1	A	0	m1	0.1	A	0	m0	0.3	A	0	m1	0.3	A	0	m1	185
Southbound Left (Bluebonnet)	2.2	A	1	4	2.5	A	1	4	2.5	A	1	4	2.9	A	1	5	3.1	A	1	5	140
Southbound Thru (Bluebonnet)	2.8	A	97	159	3.0	A	108	180	3.1	A	113	186	3.5	A	135	221	3.7	A	45	235	2420
Southbound Right (Bluebonnet)	0.7	A	0	5	0.7	A	0	5	0.7	A	0	5	0.9	A	0	6	0.9	A	0	6	160
Eastbound Left (Oliphant)	32.0	C	12	57	31.5	C	12	58	31.3	C	12	58	37.0	D	21	70	39.2	D	24	72	620
Eastbound Thru (Oliphant)	32.0	C	12	57	31.5	C	12	58	31.3	C	12	58	37.0	D	21	70	39.2	D	24	72	620
Eastbound Right (Oliphant)	32.0	C	12	57	31.5	C	12	58	31.3	C	12	58	37.0	D	21	70	39.2	D	24	72	620
Westbound Left (Oliphant)	40.0	D	11	42	40.8	D	12	43	40.9	D	12	43	39.9	D	13	45	39.4	D	13	45	1350
Westbound Thru (Oliphant)	40.0	D	11	42	40.8	D	12	43	40.9	D	12	43	39.9	D	13	45	39.4	D	13	45	1350
Westbound Right (Oliphant)	40.0	D	11	42	40.8	D	12	43	40.9	D	12	43	39.9	D	13	45	39.4	D	13	45	1350
Overall	**2.8**	**A**			**3.1**	**A**			**3.6**	**A**			**4.4**	**A**			**4.6**	**A**			
Gail Dr at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	0.8	A	1	m1	1.6	A	3	m0	1.3	A	2	m0	1.5	A	3	m0	1.2	A	2	m0	130
Northbound Thru (Bluebonnet)	0.8	A	47	33	2.0	A	175	13	1.5	A	140	12	2.6	A	142	16	2.5	A	116	17	920
Northbound Right (Bluebonnet)	0.1	A	0	m0	0.4	A	1	m0	0.1	A	1	m0	0.1	A	1	m0	0.0	A	1	m0	155
Southbound Left (Bluebonnet)	2.0	A	0	m1	3.4	A	0	m2	3.4	A	0	m2	4.2	A	1	m3	4.3	A	1	m3	145
Southbound Thru (Bluebonnet)	2.3	A	104	148	3.6	A	111	300	3.8	A	117	320	5.9	A	175	382	6.3	A	199	416	1700
Southbound Right (Bluebonnet)	0.0	A	0	m0	0.9	A	0	m1	0.9	A	0	m1	1.2	A	0	m1	1.1	A	0	m1	200
Eastbound Left (Gail)	45.3	D	12	42	45.1	D	12	42	44.9	D	12	42	44.9	D	13	44	44.6	D	13	44	1070
Eastbound Thru (Gail)	45.3	D	12	42	45.1	D	12	42	44.9	D	12	42	44.9	D	13	44	44.6	D	13	44	1070
Eastbound Right (Gail)	45.3	D	12	42	45.1	D	12	42	44.9	D	12	42	44.9	D	13	44	44.6	D	13	44	1070
Westbound Left (Gail)	32.4	C	5	39	34.0	C	7	41	34.7	C	8	42	36.9	D	10	45	37.6	D	11	47	1250
Westbound Thru (Gail)	32.4	C	5	39	34.0	C	7	41	34.7	C	8	42	36.9	D	10	45	37.6	D	11	47	1250
Westbound Right (Gail)	32.4	C	5	39	34.0	C	7	41	34.7	C	8	42	36.9	D	10	45	37.6	D	11	47	1250
Overall	**2.2**	**A**			**3.4**	**A**			**3.2**	**A**			**4.8**	**A**			**4.9**	**A**			
Blue Cross Pkwy at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	6.0	A	3	m9	8.1	A	7	m11	13.1	B	8	m13	14.5	B	6	m14	21.5	C	13	m27	425
Northbound Thru (Bluebonnet)	12.2	B	361	652	7.0	A	114	129	9.7	A	117	368	8.1	A	144	166	10.7	B	363	389	770
Northbound Right (Bluebonnet)	2.8	A	15	m26	2.2	A	20	m27	2.2	A	20	m25	2.5	A	22	m27	2.2	A	23	m25	210
Southbound Left (Bluebonnet)	24.5	C	12	35	26.1	C	22	42	26.3	C	21	45	40.1	D	23	66	39.4	D	20	66	500
Southbound Thru (Bluebonnet)	23.1	C	387	561	21.1	C	481	501	20.2	C	508	170	20.8	C	625	167	20.6	C	632	164	950
Southbound Right (Bluebonnet)	5.7	A	5	m10	4.1	A	3	m1	4.3	A	4	m3	3.5	A	6	m5	3.2	A	6	m4	200
Eastbound Left (Blue Cross)	83.0	F	55	#126	73.1	E	56	105	73.1	E	56	105	79.9	E	60	#122	79.9	E	60	#122	80
Eastbound Thru (Blue Cross)	26.8	C	11	39	26.3	C	11	40	26.9	C	11	41	26.8	C	12	43	26.6	C	12	43	300
Eastbound Right (Blue Cross)	26.8	C	11	39	26.3	C	11	40	26.9	C	11	41	26.8	C	12	43	26.6	C	12	43	300
Westbound Left (Blue Cross)	58.3	E	66	100	61.8	E	74	113	61.3	E	75	115	69.0	E	81	#144	69.5	E	84	#150	230
Westbound Thru (Blue Cross)	54.3	D	27	60	58.7	E	27	64	58.5	E	27	64	60.5	E	30	70	60.3	E	30	70	1090
Westbound Right (Blue Cross)	31.8	C	20	43	33.5	C	20	45	33.5	C	20	45	35.3	D	22	50	35.0	D	22	50	1090
Overall	**20.3**	**C**			**17.7**	**B**			**18.5**	**B**			**19.0**	**B**			**20.1**	**C**			
I-10 WB at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	39.1	D	194	#416	34.3	C	102	176	40.4	D	115	191	40.2	D	128	231	43.9	D	138	238	290
Northbound Thru (Bluebonnet)	7.3	A	77	99	8.2	A	168	189	7.0	A	152	86	9.9	A	205	714	9.0	A	157	556	290
Southbound Thru (Bluebonnet)	22.2	C	466	346	23.4	C	566	656	16.4	B	367	273	24.4	C	692	728	14.2	B	319	297	740
Southbound Right (Bluebonnet)	1.6	A	5	5	2.2	A	14	17	16.4	B	367	273	1.7	A	8	m15	14.2	B	319	297	645
Westbound Left (WB I-10 Ramp)	67.7	E	108	171	66.6	E	66	121	55.5	E	68	126	68.0	E	72	130	56.5	E	73	133	2820
Westbound Thru (WB I-10 Ramp)	67.4	E	108	171	66.2	E	65	121	55.4	E	68	125	67.2	E	70	128	56.9	E	75	136	2820
Westbound Right (WB I-10 Ramp)	28.2	C	184	262	28.5	C	167	257	33.6	C	180	283	30.2	C	189	289	36.3	D	206	319	580
Overall	**22.9**	**C**			**20.5**	**C**			**19.2**	**B**			**22.4**	**C**			**19.8**	**B**			

m - indicates that upstream metering is in effect | # - indicates that the 95th percentile volume exceeds capacity | ~ - indicates that the volume exceeds capacity and queue is theoretically infinite

Table 16: Bluebonnet Boulevard Analysis Results Noon Continued

	2015 Existing				2017 No Build				2017 Build				2037 No Build				2037 Build				Available Storage Length (feet)
I-10 EB at Bluebonnet Blvd	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	
Northbound Thru (Bluebonnet)	8.9	A	158	210	14.5	B	179	192	10.8	B	180	207	14.2	B	304	211	10.7	B	193	228	775
Northbound Right (Bluebonnet)	1.8	A	18	34	3.3	A	24	35	1.8	A	19	7	2.7	A	25	27	1.3	A	15	m6	775
Southbound Left (Bluebonnet)	56.7	E	252	m#384	36.4	D	231	m#302	35.0	D	120	169	39.8	D	241	m#316	35.1	D	139	181	300
Southbound Thru (Bluebonnet)	16.0	B	113	151	7.5	A	60	66	8.6	A	70	101	8.1	A	65	122	9.9	A	75	109	300
Eastbound Left (EB I-10 Ramp)	57.7	E	77	132	71.6	E	75	134	56.3	E	72	132	74.3	E	83	146	58.0	E	81	143	1925
Eastbound Thru (EB I-10 Ramp)	57.8	E	78	133	71.7	E	76	135	56.4	E	73	133	73.9	E	83	146	57.9	E	81	143	1925
Eastbound Right (EB I-10 Ramp)	1.7	A	0	0	0.8	A	0	0	27.6	C	205	272	0.9	A	0	0	29.2	C	233	307	1925
Overall	**13.9**	**B**			**13.9**	**B**			**15.6**	**B**			**14.3**	**B**			**16.2**	**B**			
Mall Drive 1/Dijon Ext at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	48.1	D	17	m16	37.4	D	17	m15	24.1	C	39	m93	27.1	C	7	m17	26.2	C	41	m115	145
Northbound Thru (Bluebonnet)	5.7	A	130	176	6.8	A	161	169	9.5	A	166	147	7.6	A	191	182	9.9	A	156	162	940
Northbound Right (Bluebonnet)	0.2	A	0	m0	0.0	A	0	m0	0.0	A	0	m0	0.0	A	0	m0	0.1	A	0	m0	255
Southbound Left (Bluebonnet)	41.3	D	76	m93	63.1	E	80	114	46.4	D	75	m98	56.8	E	87	m117	42.5	D	80	m99	325
Southbound Thru (Bluebonnet)	10.9	B	348	564	7.0	A	26	457	21.7	C	415	451	13.2	B	423	555	21.9	C	500	454	750
Southbound Right (Bluebonnet)	0.1	A	0	m0	0.0	A	0	m1	0.8	A	5	m3	0.0	A	0	m1	5.0	A	25	m38	95
Eastbound Left (Dijon Extension)	67.1	E	26	61	52.9	D	26	57	72.3	E	124	#218	51.9	D	28	61	78.0	E	134	#245	1300
Eastbound Thru (Dijon Extension)	40.3	D	3	21	31.4	C	3	22	15.3	B	8	65	30.6	C	3	22	15.3	B	9	67	1300
Eastbound Right (Dijon Extension)	40.3	D	3	21	31.4	C	3	22	15.3	B	8	65	30.6	C	3	22	15.3	B	9	67	1300
Westbound Right (Mall Drive 1)	45.0	D	104	161	15.9	B	29	88	40.8	D	114	162	21.6	C	56	115	42.0	D	132	174	220
Overall	**13.7**	**B**			**11.5**	**B**			**21.4**	**C**			**14.6**	**B**			**22.0**	**C**			
Mall Drive 1 at Mall Ring Rd																					
Northbound Left (Mall Ring Rd)	2.1	A	25	2	2.9	A	10	27	3.7	A	8	29	2.6	A	7	33	3.7	A	22	36	720
Northbound Thru (Mall Ring Rd)	2.2	A	116	4	2.8	A	23	59	3.6	A	36	69	2.5	A	16	80	3.4	A	60	88	720
Southbound Thru (Mall Ring Rd)	52.5	D	164	227	52.5	D	162	225	52.5	D	164	227	50.5	D	176	239	50.4	D	177	241	1150
Southbound Right (Mall Ring Rd)	3.3	A	0	43	2.8	A	0	39	2.5	A	0	39	2.6	A	0	38	2.4	A	0	38	1150
Easttbound Left (Mall Drive 1)	66.0	E	94	87	70.6	E	95	133	65.7	E	96	131	70.4	E	104	143	65.9	E	103	140	200
Eastbound Right (Mall Drive 1)	66.0	E	94	87	70.6	E	95	133	65.7	E	96	131	70.4	E	104	143	65.9	E	103	140	200
Overall	**24.7**	**C**			**25.5**	**C**			**25.0**	**C**			**24.9**	**C**			**24.6**	**C**			
Mall Drive 2/Picardy Ave at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	38.3	D	121	m170	43.0	D	165	223	39.5	D	133	m183	43.8	D	161	m231	36.5	D	135	m166	235
Northbound Thru (Bluebonnet)	19.9	B	189	241	20.3	C	125	220	21.9	C	141	271	19.4	B	153	263	20.8	C	210	267	855
Northbound Right (Bluebonnet)	4.4	A	6	m6	5.1	A	4	m9	5.2	A	4	m9	4.9	A	4	m10	4.9	A	5	m8	250
Southbound Left (Bluebonnet)	62.9	E	68	103	48.0	D	64	103	44.2	D	44	109	57.0	E	71	112	54.5	D	74	119	330
Southbound Thru (Bluebonnet)	13.1	B	104	52	16.6	B	133	116	11.4	B	28	146	18.1	B	74	189	17.9	B	76	236	970
Southbound Right (Bluebonnet)	6.7	A	64	53	9.7	A	50	149	7.4	A	20	129	11.5	B	1	194	11.1	B	64	164	195
Eastbound Left (Picardy)	57.7	E	146	#243	52.1	D	161	213	54.2	D	142	184	53.4	D	170	234	53.5	D	151	202	355
Eastbound Thru (Picardy)	24.5	C	53	106	19.5	B	54	100	20.8	C	49	90	19.7	B	56	107	20.4	C	52	96	590
Eastbound Right (Picardy)	24.5	C	53	106	19.5	B	54	100	20.8	C	49	90	19.7	B	56	107	20.4	C	52	96	590
Westbound Left (Mall Drive 2)	45.7	D	0	52	33.2	C	29	m49	33.0	C	27	m49	33.6	C	32	m53	33.7	C	0	m53	300
Westbound Thru (Mall Drive 2)	54.6	D	0	109	41.7	D	70	101	39.2	D	57	91	42.9	D	76	111	41.0	D	0	100	300
Westbound Right (Mall Drive 2)	38.7	D	32	70	19.7	B	26	m51	20.3	C	41	m69	21.9	C	33	m50	21.7	C	43	m67	300
Overall	**24.6**	**C**			**24.9**	**C**			**23.1**	**C**			**25.9**	**C**			**25.3**	**C**			
Mall Drive 2 at Mall Ring Rd																					
Northbound Left (Mall Ring Rd)	19.3	B	93	189	53.2	D	131	208	54.0	D	132	209	50.9	D	143	225	51.5	D	140	227	950
Northbound Thru (Mall Ring Rd)	15.5	B	125	287	38.0	D	170	262	37.9	D	174	266	35.3	D	185	283	35.0	D	189	288	950
Southbound Thru (Mall Ring Rd)	10.4	B	55	188	40.2	D	197	270	36.9	D	203	275	34.1	C	215	289	31.5	C	221	294	720
Southbound Right (Mall Ring Rd)	0.1	A	0	0	0.1	A	0	0	0.1	A	0	0	0.1	A	0	0	0.1	A	0	0	720
Easttbound Left (Mall Drive 2)	38.9	D	130	156	9.1	A	50	75	9.3	A	46	79	11.4	B	57	88	11.7	B	52	98	300
Eastbound Right (Mall Drive 2)	0.1	A	0	0	0.1	A	0	0	0.1	A	0	0	0.1	A	0	0	0.2	A	0	0	300
Overall	**16.8**	**B**			**26.7**	**C**			**26.3**	**C**			**25.0**	**C**			**24.7**	**C**			

m - indicates that upstream metering is in effect | # - indicates that the 95th percentile volume exceeds capacity | ~ - indicates that the volume exceeds capacity and queue is theoretically infinite

Table 17: Bluebonnet Boulevard Analysis Results Noon Continued

	2015 Existing				2017 No Build				2017 Build				2037 No Build				2037 Build				Available Storage Length (feet)
Mall Drive 3 at Bluebonnet Blvd	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	
Northbound Thru (Bluebonnet)	16.9	B	613	73	15.1	B	261	137	15.9	B	348	143	14.7	B	146	201	16.4	B	197	344	740
Northbound Right (Bluebonnet)	1.7	A	48	m6	2.2	A	31	26	2.1	A	29	26	1.9	A	20	24	2.1	A	41	55	170
Southbound Left (Bluebonnet)	86.1	F	40	m69	88.6	F	67	#162	89.9	F	73	#169	101.5	F	75	#160	97.2	F	79	#139	345
Southbound Thru (Bluebonnet)	2.1	A	47	26	2.6	A	32	34	2.4	A	44	32	2.6	A	44	36	2.4	A	56	35	840
Westbound Left (Mall Drive 3)	35.4	D	95	149	20.2	C	58	90	19.8	B	58	89	18.0	B	65	97	18.1	B	66	98	155
Westbound Right (Mall Drive 3)	21.3	C	45	m69	11.1	B	29	65	11.0	B	30	67	11.8	B	40	71	10.8	B	41	66	110
Overall	**12.7**	**B**			**11.1**	**B**			**11.3**	**B**			**11.0**	**B**			**11.5**	**B**			
Mall Drive 3 at Mall Ring Rd																					
Northbound Thru (Mall Ring Rd)	38.3	D	144	209	32.4	C	121	174	32.9	C	124	177	34.0	C	138	194	34.4	C	141	197	2350
Northbound Right (Mall Ring Rd)	38.3	D	144	209	32.4	C	121	174	32.9	C	124	177	34.0	C	138	194	34.4	C	141	197	2350
Southbound Left (Mall Drive 3)	59.2	E	163	232	11.4	B	63	151	11.6	B	63	154	12.4	B	93	m153	12.5	B	96	149	150
Southbound Thru (Mall Drive 3)	36.8	D	155	223	7.6	A	60	143	7.5	A	60	145	7.5	A	87	m143	7.4	A	91	138	150
Westbound Left (Mall Ring Rd)	4.3	A	21	39	62.6	E	119	163	62.4	E	121	166	59.9	E	106	#208	60.3	E	107	#221	950
Westbound Right (Mall Ring Rd)	0.4	A	0	0	6.7	A	24	48	6.7	A	26	51	4.8	A	0	65	5.0	A	0	69	950
Overall	**30.8**	**C**			**23.6**	**C**			**23.9**	**C**			**23.7**	**C**			**24.0**	**C**			
Anselmo Ln at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	65.2	E	41	86	77.6	E	52	#116	77.6	E	52	#116	81.0	F	57	#132	80.7	F	57	#132	380
Northbound Thru (Bluebonnet)	23.9	C	556	#1068	12.8	B	322	537	13.1	B	321	570	15.2	B	503	606	16.1	B	537	648	2460
Northbound Right (Bluebonnet)	23.9	C	556	#1068	12.8	B	322	537	13.1	B	321	570	15.2	B	503	606	16.1	B	537	648	2460
Southbound Left (Bluebonnet)	63.9	E	14	m33	54.5	D	16	m44	53.0	D	17	m44	55.3	E	18	m44	54.8	D	19	m44	135
Southbound Thru (Bluebonnet)	13.9	B	162	#842	10.8	B	542	245	10.4	B	366	235	11.2	B	233	267	11.5	B	227	256	765
Southbound Right (Bluebonnet)	3.0	A	19	33	2.7	A	20	23	2.4	A	20	23	2.3	A	18	27	2.1	A	18	26	170
Eastbound Left (Anselmo)	55.0	E	76	130	74.6	E	80	#171	76.5	E	84	#180	80.4	F	90	#205	80.5	F	93	#213	480
Eastbound Thru (Anselmo)	54.8	D	76	130	74.4	E	81	#173	75.4	E	83	#176	79.6	E	90	#204	79.0	E	92	#210	2650
Eastbound Right (Anselmo)	36.7	D	56	99	44.1	D	61	113	44.1	D	62	113	44.9	D	68	123	44.7	D	68	123	500
Westbound Left (Anselmo)	54.0	D	18	45	56.9	E	18	47	57.3	E	18	47	59.6	E	20	50	59.6	E	20	50	150
Westbound Thru (Anselmo)	35.2	D	4	26	37.3	D	4	26	37.5	D	4	26	38.5	D	5	29	38.5	D	5	29	1065
Westbound Right (Anselmo)	35.2	D	4	26	37.3	D	4	26	37.5	D	4	26	38.5	D	5	29	38.5	D	5	29	1065
Overall	**21.7**	**C**			**17.6**	**B**			**17.6**	**B**			**19.2**	**B**			**19.6**	**B**			
Park Rowe Ave at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	66.4	E	33	m38	76.7	E	41	m52	76.3	E	40	m51	71.3	E	47	m52	74.7	E	47	m51	170
Northbound Thru (Bluebonnet)	46.7	D	671	m517	41.9	D	596	m403	40.0	D	588	m427	46.2	D	620	m421	38.9	D	566	m431	560
Northbound Right (Bluebonnet)	10.4	B	17	m18	11.4	B	23	m24	10.7	B	22	m23	11.0	B	26	m19	11.2	B	23	m21	170
Southbound Left (Bluebonnet)	82.7	F	164	220	78.1	E	176	227	78.3	E	180	232	78.1	E	190	#278	82.9	F	196	#274	180
Southbound Thru (Bluebonnet)	20.5	C	561	576	17.2	B	342	443	17.9	B	364	465	20.2	C	456	436	19.2	B	440	523	2420
Southbound Right (Bluebonnet)	20.5	C	561	576	17.2	B	342	443	17.9	B	364	465	20.2	C	456	436	19.2	B	440	523	2420
Eastbound Left (Park Rowe)	83.7	F	139	#307	95.9	F	146	224	95.6	F	149	#239	77.0	E	151	#349	96.8	F	163	#267	270
Eastbound Thru (Park Rowe)	24.8	C	17	69	22.9	C	18	64	22.7	C	18	64	23.9	C	19	75	21.8	C	19	68	270
Eastbound Right (Park Rowe)	24.8	C	17	69	22.9	C	18	64	22.7	C	18	64	23.9	C	19	75	21.8	C	19	68	270
Westbound Left (Park Rowe)	54.1	D	68	129	53.4	D	71	120	52.8	D	71	120	51.6	D	72	138	54.3	D	76	130	500
Westbound Thru (Park Rowe)	54.1	D	68	129	33.6	C	71	120	52.8	D	71	120	51.6	D	72	138	54.3	D	76	130	500
Westbound Right (Park Rowe)	35.5	D	120	201	76.7	E	126	175	33.3	C	129	180	31.8	C	123	220	33.6	C	136	205	125
Overall	**40.1**	**D**			**38.9**	**D**			**38.3**	**D**			**40.5**	**D**			**38.9**	**D**			
Perkins Rd at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	54.6	D	98	142	51.0	D	140	201	52.6	D	142	204	55.2	E	160	226	56.3	E	161	229	365
Northbound Thru (Bluebonnet)	101.0	F	~815	#958	75.6	E	~630	#788	80.9	F	~676	#817	104.2	F	~771	#914	112.3	F	~801	#943	3690
Northbound Right (Bluebonnet)	101.0	F	~815	#958	75.6	E	~630	#788	80.9	F	~676	#817	104.2	F	~771	#914	112.3	F	~801	#943	3690
Southbound Left (Bluebonnet)	91.9	F	177	#278	144.3	F	~210	#335	156.9	F	~223	#350	181.7	F	~250	#362	193.8	F	~262	#390	265
Southbound Thru (Bluebonnet)	54.8	D	342	494	70.4	E	338	324	67.2	E	290	323	60.7	E	266	315	67.7	E	278	320	575
Southbound Right (Bluebonnet)	13.7	B	81	137	7.8	A	10	86	22.7	C	49	129	18.2	B	73	89	23.1	C	73	123	195
Eastbound Left (Perkins)	77.3	E	150	203	105.4	F	103	#179	109.9	F	106	#186	121.6	F	113	#202	128.0	F	117	#209	415
Eastbound Thru (Perkins)	81.6	F	370	#513	95.0	F	~476	#612	95.0	F	~476	#612	124.2	F	~562	#700	124.2	F	~562	#700	6800
Eastbound Right (Perkins)	16.5	B	35	62	8.5	A	57	120	17.5	B	135	219	19.8	B	159	256	20.8	C	162	264	315
Westbound Left (Perkins)	76.1	E	142	192	123.6	F	~275	#392	123.6	F	~275	#392	154.8	F	~323	#443	154.8	F	~323	#443	610
Westbound Thru (Perkins)	74.2	E	342	#461	54.8	D	408	492	54.8	D	408	492	59.9	E	461	551	59.9	E	461	551	960
Westbound Right (Perkins)	35.5	D	153	228	15.7	B	95	168	30.2	C	193	277	30.7	C	207	294	31.1	C	216	305	355
Overall	**74.1**	**E**			**74.0**	**E**			**77.6**	**E**			**91.6**	**F**			**95.4**	**F**			

m - indicates that upstream metering is in effect | # - indicates that the 95th percentile volume exceeds capacity | ~ - indicates that the volume exceeds capacity and queue is theoretically infinite

Table 18: Bluebonnet Boulevard Analysis Results PM

	2015 Existing				2017 No Build				2017 Build				2037 No Build				2037 Build				Available Storage Length (feet)
Oliphant Rd at Bluebonnet Blvd	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	
Northbound Left (Bluebonnet)	9.3	A	71	29	8.3	A	75	25	11.4	B	105	86	13.1	B	13	m63	15.3	B	28	m109	140
Northbound Thru (Bluebonnet)	5.5	A	360	64	5.6	A	386	88	7.9	A	555	294	4.2	A	68	168	4.4	A	143	227	1735
Northbound Right (Bluebonnet)	0.8	A	9	m1	1.0	A	8	m0	1.6	A	9	m20	0.8	A	0	m7	1.3	A	4	m13	185
Southbound Left (Bluebonnet)	2.5	A	1	6	2.7	A	1	6	2.9	A	1	6	3.6	A	1	7	3.8	A	1	7	140
Southbound Thru (Bluebonnet)	2.8	A	102	165	2.7	A	95	154	2.7	A	98	158	3.0	A	113	185	3.1	A	116	190	2420
Southbound Right (Bluebonnet)	0.7	A	0	6	0.6	A	0	5	0.6	A	0	5	0.7	A	0	6	0.7	A	0	6	160
Eastbound Left (Oliphant)	34.2	C	17	78	34.7	C	17	77	34.6	C	17	77	35.5	D	21	84	35.3	D	21	85	620
Eastbound Thru (Oliphant)	34.2	C	17	78	34.7	C	17	77	34.6	C	17	77	35.5	D	21	84	35.3	D	21	85	620
Eastbound Right (Oliphant)	34.2	C	17	78	34.7	C	17	77	34.6	C	17	77	35.5	D	21	84	35.3	D	21	85	620
Westbound Left (Oliphant)	119.7	F	26	63	113.8	F	25	62	113.8	F	25	62	123.8	F	27	#65	123.8	F	27	#65	1350
Westbound Thru (Oliphant)	119.7	F	26	63	113.8	F	25	62	113.8	F	25	62	123.8	F	27	#65	123.8	F	27	#65	1350
Westbound Right (Oliphant)	119.7	F	26	63	113.8	F	25	62	113.8	F	25	62	123.8	F	27	#65	123.8	F	27	#65	1350
Overall	**6.4**	**A**			**6.3**	**A**			**7.7**	**A**			**6.1**	**A**			**6.3**	**A**			
Gail Dr at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	1.2	A	2	m2	1.2	A	2	m2	1.0	A	1	m3	1.0	A	2	m2	1.1	A	2	m2	130
Northbound Thru (Bluebonnet)	2.1	A	85	m73	1.8	A	80	88	2.1	A	76	92	2.6	A	60	m97	2.5	A	61	m86	920
Northbound Right (Bluebonnet)	0.1	A	0	m0	0.0	A	0	m0	0.1	A	0	m0	0.0	A	0	m0	0.1	A	0	m0	155
Southbound Left (Bluebonnet)	2.0	A	0	m1	2.0	A	0	m1	1.0	A	0	m0	2.0	A	0	m1	2.5	A	0	m1	145
Southbound Thru (Bluebonnet)	2.1	A	101	108	2.0	A	76	134	1.9	A	177	39	2.4	A	116	151	2.4	A	121	154	1700
Southbound Right (Bluebonnet)	0.1	A	0	m0	0.1	A	0	m0	0.0	A	0	m0	0.2	A	0	m0	0.2	A	0	m0	200
Eastbound Left (Gail)	45.0	D	11	45	45.8	D	11	46	45.6	D	11	46	45.2	D	12	47	44.8	D	12	47	1070
Eastbound Thru (Gail)	45.0	D	11	45	45.8	D	11	46	45.6	D	11	46	45.2	D	12	47	44.8	D	12	47	1070
Eastbound Right (Gail)	45.0	D	11	45	45.8	D	11	46	45.6	D	11	46	45.2	D	12	47	44.8	D	12	47	1070
Westbound Left (Gail)	55.0	E	19	61	53.8	D	17	58	54.5	D	18	60	56.0	E	20	62	56.8	E	21	63	1250
Westbound Thru (Gail)	55.0	E	19	61	53.8	D	17	58	54.5	D	18	60	56.0	E	20	62	56.8	E	21	63	1250
Westbound Right (Gail)	55.0	E	19	61	53.8	D	17	58	54.5	D	18	60	56.0	E	20	62	56.8	E	21	63	1250
Overall	**3.1**	**A**			**2.8**	**A**			**2.9**	**A**			**4.1**	**A**			**3.4**	**A**			
Blue Cross Pkwy at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	5.3	A	5	m7	8.9	A	8	m9	10.5	B	9	m14	10.5	B	8	m10	9.6	A	9	m11	425
Northbound Thru (Bluebonnet)	44.3	D	689	m#1046	15.6	B	183	m198	19.3	B	254	695	56.1	E	821	m601	30.9	C	732	#1196	770
Northbound Right (Bluebonnet)	2.7	A	25	m27	2.2	A	23	m21	2.0	A	17	m34	2.4	A	29	m24	1.8	A	22	m23	210
Southbound Left (Bluebonnet)	28.2	C	14	28	39.3	D	18	29	39.5	D	16	32	41.6	D	18	34	44.6	D	17	35	500
Southbound Thru (Bluebonnet)	77.5	E	578	380	20.8	C	468	403	21.4	C	483	575	40.2	D	396	443	19.7	B	542	413	950
Southbound Right (Bluebonnet)	6.1	A	2	m6	5.7	A	5	m6	5.9	A	3	m7	5.3	A	3	m6	4.9	A	2	m5	200
Eastbound Left (Blue Cross)	98.1	F	99	#174	96.9	F	100	#167	96.9	F	100	#167	98.9	F	109	#194	111.0	F	111	#218	80
Eastbound Thru (Blue Cross)	26.5	C	8	42	29.8	C	11	45	31.7	C	13	48	40.8	D	22	58	42.6	D	24	61	300
Eastbound Right (Blue Cross)	26.5	C	8	42	29.8	C	11	45	31.7	C	13	48	40.8	D	22	58	42.6	D	24	61	300
Westbound Left (Blue Cross)	65.8	E	279	#381	79.5	E	285	#401	81.2	F	291	#410	91.2	F	321	#459	113.6	F	~362	#495	230
Westbound Thru (Blue Cross)	64.7	E	145	228	73.7	E	148	#238	73.3	E	148	#238	76.9	E	166	#281	80.7	F	167	#281	1090
Westbound Right (Blue Cross)	39.6	D	93	150	51.9	D	103	165	51.9	D	103	165	54.8	D	113	178	60.0	E	116	184	1090
Overall	**55.6**	**E**			**30.1**	**C**			**31.9**	**C**			**54.1**	**D**			**41.3**	**D**			
I-10 WB at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	103.4	F	~488	#660	87.1	F	~325	#522	38.4	D	152	302	95.8	F	325	#540	72.8	E	280	#469	290
Northbound Thru (Bluebonnet)	52.3	D	914	#1042	18.9	B	906	#1019	12.3	B	855	960	62.9	E	~1047	#1187	33.8	C	967	#1074	290
Southbound Thru (Bluebonnet)	92.2	F	921	995	39.7	D	845	927	41.6	D	707	764	62.0	E	958	m1042	39.4	D	775	m801	740
Southbound Right (Bluebonnet)	6.1	A	43	m105	4.6	A	36	m61	41.6	D	707	764	6.4	A	50	m76	39.4	D	775	m801	645
Westbound Left (WB I-10 Ramp)	90.1	F	121	192	78.8	E	77	136	72.1	E	82	143	85.3	F	85	149	71.3	E	88	151	2820
Westbound Thru (WB I-10 Ramp)	90.8	F	122	195	78.9	E	78	140	72.0	E	82	143	84.8	F	85	149	71.2	E	88	151	2820
Westbound Right (WB I-10 Ramp)	28.4	C	232	322	30.8	C	253	358	40.5	D	290	414	31.9	C	287	405	43.9	D	88	469	580
Overall	**71.4**	**E**			**38.2**	**D**			**32.1**	**C**			**62.2**	**E**			**44.0**	**D**			

m - indicates that upstream metering is in effect | # - indicates that the 95th percentile volume exceeds capacity | ~ - indicates that the volume exceeds capacity and queue is theoretically infinite

Table 19: Bluebonnet Boulevard Analysis Results PM Continued

	2015 Existing				2017 No Build				2017 Build				2037 No Build				2037 Build				Available Storage Length (feet)
I-10 EB at Bluebonnet Blvd	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	
Northbound Thru (Bluebonnet)	29.1	C	628	690	28.3	C	643	623	21.2	C	501	585	23.5	C	617	555	19.5	B	399	559	775
Northbound Right (Bluebonnet)	17.5	B	406	634	10.3	B	118	232	7.1	A	98	290	10.3	B	133	293	5.8	A	112	m167	775
Southbound Left (Bluebonnet)	90.9	F	~666	m#820	114.6	F	~758	#988	39.9	D	314	352	131.6	F	~845	m#967	62.9	E	340	m#432	300
Southbound Thru (Bluebonnet)	10.7	B	91	148	6.3	A	61	77	8.7	A	71	82	8.7	A	71	m116	10.8	B	79	131	300
Eastbound Left (EB I-10 Ramp)	84.2	F	107	175	95.2	F	109	#189	78.9	E	108	180	111.3	F	122	#240	78.5	E	117	192	1925
Eastbound Thru (EB I-10 Ramp)	84.5	F	108	177	96.0	F	110	#191	79.2	E	109	182	111.5	F	123	#241	78.6	E	118	193	1925
Eastbound Right (EB I-10 Ramp)	0.9	A	0	0	0.8	A	0	0	29.7	C	241	309	0.9	A	0	0	32.9	C	286	360	1925
Overall	**28.5**	**C**			**31.3**	**C**			**22.4**	**C**			**32.6**	**C**			**25.9**	**C**			
Mall Drive 1/Dijon Ext at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	53.3	D	12	m10	55.8	E	17	m11	29.5	C	44	m113	57.1	E	18	m13	32.1	C	84	m132	145
Northbound Thru (Bluebonnet)	11.8	B	269	645	9.5	A	298	313	13.3	B	267	360	12.0	B	308	329	17.0	B	567	586	940
Northbound Right (Bluebonnet)	0.4	A	0	m0	0.0	A	0	m0	0.1	A	0	m0	0.0	A	0	m0	0.7	A	1	m1	255
Southbound Left (Bluebonnet)	59.2	E	91	119	73.1	E	98	131	75.2	E	101	138	63.9	E	104	142	71.4	E	121	m163	325
Southbound Thru (Bluebonnet)	7.5	A	228	477	7.3	A	110	451	30.2	C	412	463	10.1	B	257	584	32.0	C	481	530	750
Southbound Right (Bluebonnet)	0.1	A	0	m0	0.1	A	0	m0	8.7	A	46	m57	0.2	A	0	m3	7.2	A	39	m38	95
Eastbound Left (Dijon Extension)	83.6	F	26	56	65.9	E	22	52	79.2	E	232	311	65.1	E	24	55	78.4	E	248	328	1300
Eastbound Thru (Dijon Extension)	54.8	D	4	23	46.2	D	4	22	25.3	C	56	122	45.9	D	4	22	27.5	C	69	137	1300
Eastbound Right (Dijon Extension)	54.8	D	4	23	46.2	D	4	22	25.3	C	56	122	45.9	D	4	22	27.5	C	69	137	1300
Westbound Right (Mall Drive 1)	64.7	E	154	207	44.5	D	106	159	39.6	D	81	139	53.4	D	136	192	48.6	D	111	#209	220
Overall	**16.9**	**B**			**15.3**	**B**			**26.8**	**C**			**17.8**	**B**			**29.6**	**C**			
Mall Drive 1 at Mall Ring Rd																					
Northbound Left (Mall Ring Rd)	5.5	A	46	56	3.6	A	17	73	6.3	A	52	82	6.4	A	49	94	9.0	A	55	117	720
Northbound Thru (Mall Ring Rd)	7.6	A	238	215	4.4	A	54	292	8.0	A	225	254	7.8	A	195	325	10.7	B	183	323	720
Southbound Thru (Mall Ring Rd)	44.1	D	116	164	64.7	E	122	188	56.1	E	118	175	64.0	E	132	205	55.3	E	127	192	1150
Southbound Right (Mall Ring Rd)	3.1	A	0	44	4.6	A	0	58	2.5	A	0	38	4.4	A	0	60	2.3	A	0	40	1150
Easttbound Left (Mall Drive 1)	83.3	F	110	92	90.5	F	113	153	76.7	E	112	151	92.0	F	123	164	51.1	D	122	165	200
Eastbound Right (Mall Drive 1)	83.3	F	110	92	90.5	F	113	153	76.7	E	112	151	92.0	F	123	164	51.1	D	122	165	200
Overall	**24.7**	**C**			**27.4**	**C**			**25.4**	**C**			**29.2**	**C**			**21.5**	**C**			
Mall Drive 2/Picardy Ave at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	42.0	D	68	m81	32.2	C	76	m97	30.3	C	49	m57	35.7	D	73	m101	36.0	D	42	m58	235
Northbound Thru (Bluebonnet)	15.0	B	153	184	23.4	C	479	348	25.4	C	563	423	24.5	C	334	471	26.9	C	384	546	855
Northbound Right (Bluebonnet)	3.6	A	2	m2	5.4	A	10	m5	6.5	A	15	m10	4.5	A	6	m5	4.3	A	4	m5	250
Southbound Left (Bluebonnet)	131.5	F	98	#186	58.8	E	61	103	54.4	D	51	112	70.4	E	66	120	81.2	F	86	151	330
Southbound Thru (Bluebonnet)	18.9	B	462	60	17.7	B	304	126	6.6	A	45	72	20.8	C	297	143	14.3	B	101	191	970
Southbound Right (Bluebonnet)	2.8	A	3	3	5.2	A	38	17	2.1	A	5	13	6.0	A	38	39	6.0	A	19	55	195
Eastbound Left (Picardy)	72.7	E	351	#533	66.0	E	358	410	68.6	E	310	359	66.2	E	390	450	67.1	E	339	389	355
Eastbound Thru (Picardy)	46.6	D	202	281	39.3	D	192	240	40.3	D	164	211	39.9	D	215	267	40.4	D	184	231	590
Eastbound Right (Picardy)	46.6	D	202	281	39.3	D	192	240	40.3	D	164	211	39.9	D	215	267	40.4	D	184	231	590
Westbound Left (Mall Drive 2)	75.1	E	37	67	63.6	E	38	67	68.2	E	38	67	62.8	E	41	72	61.4	E	41	71	300
Westbound Thru (Mall Drive 2)	74.5	E	38	68	63.0	E	38	68	65.2	E	30	56	62.1	E	42	73	57.9	E	32	59	300
Westbound Right (Mall Drive 2)	66.8	E	54	104	41.9	D	43	66	46.6	D	53	120	46.3	D	59	106	48.0	D	76	128	300
Overall	**33.5**	**C**			**32.4**	**C**			**29.4**	**C**			**34.1**	**C**			**33.1**	**C**			
Mall Drive 2 at Mall Ring Rd																					
Northbound Left (Mall Ring Rd)	23.3	C	86	182	41.3	D	118	167	42.8	D	88	186	39.8	D	119	184	39.0	D	123	187	950
Northbound Thru (Mall Ring Rd)	27.4	C	331	439	44.1	D	282	369	44.8	D	208	420	42.8	D	322	422	42.0	D	320	439	950
Southbound Thru (Mall Ring Rd)	9.0	A	60	96	35.4	D	173	247	32.7	C	174	241	24.4	C	181	218	23.8	C	182	119	720
Southbound Right (Mall Ring Rd)	0.1	A	0	0	0.1	A	0	0	0.1	A	0	0	0.1	A	0	0	0.1	A	0	0	720
Easttbound Left (Mall Drive 2)	45.9	D	171	m123	20.9	C	65	252	19.8	B	83	168	25.9	C	95	301	25.0	C	89	319	300
Eastbound Right (Mall Drive 2)	0.2	A	0	m0	0.2	A	0	0	0.2	A	0	0	0.2	A	0	0	0.2	A	0	0	300
Overall	**23.0**	**C**			**26.9**	**C**			**26.7**	**C**			**26.1**	**C**			**25.5**	**C**			

m - indicates that upstream metering is in effect | # - indicates that the 95th percentile volume exceeds capacity | ~ - indicates that the volume exceeds capacity and queue is theoretically infinite

Table 20: Bluebonnet Boulevard Analysis Results PM Continued

	2015 Existing				2017 No Build				2017 Build				2037 No Build				2037 Build				Available Storage Length (feet)
Mall Drive 3 at Bluebonnet Blvd	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	
Northbound Thru (Bluebonnet)	38.9	D	966	m1074	21.4	C	504	740	20.9	C	341	725	24.3	C	692	870	27.1	C	885	904	740
Northbound Right (Bluebonnet)	1.6	A	17	m32	4.0	A	86	133	3.8	A	67	146	5.0	A	126	m147	5.2	A	109	m138	170
Southbound Left (Bluebonnet)	106.0	F	90	m128	103.4	F	117	m188	101.8	F	131	#211	103.2	F	130	m182	108.3	F	144	m#231	345
Southbound Thru (Bluebonnet)	2.0	A	60	41	1.8	A	31	57	1.3	A	6	32	1.8	A	45	59	2.2	A	68	54	840
Westbound Left (Mall Drive 3)	39.5	D	102	126	30.2	C	95	119	25.6	C	87	118	31.1	C	102	126	31.1	C	101	125	155
Westbound Right (Mall Drive 3)	30.3	C	41	67	22.8	C	51	81	18.2	B	43	82	22.9	C	54	84	22.6	C	54	85	110
Overall	**23.1**	**C**			**15.9**	**B**			**14.9**	**B**			**17.2**	**B**			**18.6**	**B**			
Mall Drive 3 at Mall Ring Rd																					
Northbound Thru (Mall Ring Rd)	41.4	D	153	214	37.0	D	140	198	37.5	D	143	202	39.6	D	163	224	39.7	D	164	226	2350
Northbound Right (Mall Ring Rd)	41.4	D	153	214	37.0	D	140	198	37.5	D	143	202	39.6	D	163	224	39.7	D	164	226	2350
Southbound Left (Mall Drive 3)	67.8	E	189	244	8.9	A	48	115	10.5	B	72	122	14.0	B	96	144	14.7	B	102	146	150
Southbound Thru (Mall Drive 3)	41.0	D	179	234	6.8	A	46	111	7.8	A	70	117	9.9	A	91	137	10.4	B	97	141	150
Westbound Left (Mall Ring Rd)	6.2	A	55	86	44.1	D	168	290	40.8	D	118	133	32.2	C	148	271	28.8	C	115	257	950
Westbound Right (Mall Ring Rd)	0.3	A	0	0	0.3	A	0	0	0.7	A	0	0	0.3	A	0	0	0.3	A	0	0	950
Overall	**35.9**	**D**			**22.0**	**C**			**22.1**	**C**			**22.7**	**C**			**22.4**	**C**			
Anselmo Ln at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	65.4	E	17	44	80.6	F	18	46	80.6	F	18	46	82.9	F	19	50	82.9	F	19	50	380
Northbound Thru (Bluebonnet)	29.5	C	672	806	22.0	C	403	580	25.3	C	571	608	25.0	C	590	648	27.0	C	618	703	2460
Northbound Right (Bluebonnet)	29.5	C	672	806	22.0	C	403	580	25.3	C	571	608	25.0	C	590	648	27.0	C	618	703	2460
Southbound Left (Bluebonnet)	78.0	E	18	m41	62.8	E	20	m49	56.1	E	20	m47	65.4	E	0	m50	63.6	E	23	m49	135
Southbound Thru (Bluebonnet)	28.9	C	512	586	22.2	C	850	318	18.6	B	250	303	23.1	C	936	347	23.0	C	982	#1066	765
Southbound Right (Bluebonnet)	6.6	A	27	55	1.9	A	18	28	0.6	A	3	7	1.8	A	11	29	1.7	A	18	26	170
Eastbound Left (Anselmo)	123.4	F	~369	#577	73.4	E	276	394	74.3	E	285	#422	77.9	E	309	#468	76.8	E	315	#475	480
Eastbound Thru (Anselmo)	127.8	F	~382	#589	74.8	E	284	#410	75.8	E	292	#433	79.6	E	316	#482	78.5	E	323	#489	2650
Eastbound Right (Anselmo)	36.2	D	64	110	41.3	D	70	120	7.6	A	0	44	41.3	D	77	128	40.5	D	76	127	500
Westbound Left (Anselmo)	71.9	E	26	60	77.0	E	27	63	77.0	E	27	63	82.2	F	30	67	95.3	F	30	#75	150
Westbound Thru (Anselmo)	24.4	C	2	49	27.1	C	2	50	26.8	C	2	49	28.9	C	2	51	26.6	C	2	52	1065
Westbound Right (Anselmo)	24.4	C	2	49	27.1	C	2	50	26.8	C	2	49	28.9	C	2	51	26.6	C	2	52	1065
Overall	**41.4**	**D**			**30.7**	**C**			**29.5**	**C**			**32.9**	**C**			**33.3**	**C**			
Park Rowe Ave at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	66.3	E	24	m32	67.7	E	100	m107	64.6	E	105	m106	84.3	F	115	m119	86.1	F	115	m119	170
Northbound Thru (Bluebonnet)	54.9	D	865	m758	52.5	D	599	m381	51.7	D	599	m360	40.7	D	486	m244	36.9	D	465	m193	560
Northbound Right (Bluebonnet)	13.1	B	14	m23	20.4	C	110	m97	15.4	B	84	m59	13.4	B	99	m61	11.9	B	88	m48	170
Southbound Left (Bluebonnet)	71.3	E	160	202	72.4	E	163	206	69.5	E	165	208	70.5	E	178	218	70.1	E	182	223	180
Southbound Thru (Bluebonnet)	18.1	B	569	599	22.6	C	458	683	21.7	C	468	698	25.9	C	558	792	25.6	C	601	767	2420
Southbound Right (Bluebonnet)	18.1	B	569	599	22.6	C	458	683	21.7	C	468	698	25.9	C	558	792	25.6	C	601	767	2420
Eastbound Left (Park Rowe)	74.7	E	95	#197	97.8	F	99	160	97.8	F	101	163	101.0	F	108	175	103.6	F	110	178	270
Eastbound Thru (Park Rowe)	23.4	C	13	66	24.4	C	14	62	24.2	C	14	62	23.6	C	14	66	23.8	C	14	66	270
Eastbound Right (Park Rowe)	23.4	C	13	66	24.4	C	14	62	24.2	C	14	62	23.6	C	14	66	23.8	C	14	66	270
Westbound Left (Park Rowe)	60.4	E	80	141	58.6	E	82	127	62.6	E	83	130	57.7	E	88	135	60.4	E	88	143	500
Westbound Thru (Park Rowe)	60.4	E	80	141	58.6	E	82	127	62.6	E	83	130	57.7	E	88	135	60.4	E	88	143	500
Westbound Right (Park Rowe)	36.6	D	137	200	36.4	D	141	172	23.0	C	93	132	34.4	C	152	179	35.2	D	153	197	125
Overall	**39.8**	**D**			**41.2**	**D**			**39.3**	**D**			**38.8**	**D**			**37.6**	**D**			
Perkins Rd at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	55.4	E	80	118	68.9	E	89	136	69.0	E	90	136	73.3	E	101	#173	74.8	E	102	#173	365
Northbound Thru (Bluebonnet)	67.8	E	644	#791	133.4	F	~794	#937	141.8	F	~815	#958	115.4	F	~837	#979	121.2	F	~861	#1003	3690
Northbound Right (Bluebonnet)	67.8	E	644	#791	133.4	F	~794	#937	141.8	F	~815	#958	115.4	F	~837	#979	121.2	F	~861	#1003	3690
Southbound Left (Bluebonnet)	77.2	E	215	#300	87.8	F	161	#247	91.2	F	170	#274	174.8	F	~229	#350	197.0	F	~251	#374	265
Southbound Thru (Bluebonnet)	70.3	E	~634	#763	58.4	E	502	442	62.2	E	518	478	58.7	E	484	534	59.6	E	417	552	575
Southbound Right (Bluebonnet)	17.1	B	114	110	14.8	B	80	119	6.6	A	47	88	15.8	B	37	112	15.6	B	37	m120	195
Eastbound Left (Perkins)	152.5	F	138	189	81.2	F	84	124	81.6	F	86	127	84.8	F	92	135	85.4	F	94	138	415
Eastbound Thru (Perkins)	81.7	F	506	#645	101.2	F	~633	#772	101.2	F	~633	#772	125.2	F	~733	#873	125.2	F	~733	#873	6800
Eastbound Right (Perkins)	15.0	B	42	70	17.5	B	41	74	0.4	A	0	0	19.2	B	50	89	19.5	B	51	89	315
Westbound Left (Perkins)	253.8	F	~242	#345	97.3	F	242	#351	97.3	F	242	#351	168.0	F	~317	#436	168.0	F	~317	#436	610
Westbound Thru (Perkins)	69.2	E	363	#474	46.4	D	322	396	46.4	D	322	396	49.9	D	369	444	50.0	D	369	444	960
Westbound Right (Perkins)	36.6	D	149	220	22.9	C	73	117	5.0	A	8	47	26.9	C	88	138	27.2	C	95	146	355
Overall	**81.1**	**F**			**84.8**	**F**			**86.4**	**F**			**97.4**	**F**			**100.3**	**F**			

m - indicates that upstream metering is in effect | # - indicates that the 95th percentile volume exceeds capacity | ~ - indicates that the volume exceeds capacity and queue is theoretically infinite

Table 21: Bluebonnet Boulevard Analysis Results Weekend

	2015 Existing				2017 No Build				2017 Build				2037 No Build				2037 Build				Available Storage Length (feet)
Oliphant Rd at Bluebonnet Blvd	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	
Northbound Left (Bluebonnet)	1.1	A	2	m3	0.6	A	0	m0	0.8	A	0	m0	0.9	A	1	m0	1.4	A	1	m1	140
Northbound Thru (Bluebonnet)	1.1	A	67	45	0.7	A	2	1	1.3	A	2	1	0.8	A	16	1	1.7	A	19	99	1735
Northbound Right (Bluebonnet)	0.5	A	0	0	0.1	A	0	m0	0.1	A	1	m0	0.0	A	0	m0	0.2	A	0	m1	185
Southbound Left (Bluebonnet)	1.9	A	2	6	2.1	A	2	6	2.1	A	2	7	2.3	A	2	7	2.4	A	2	8	140
Southbound Thru (Bluebonnet)	1.9	A	75	112	2.3	A	105	156	2.4	A	111	166	2.5	A	123	186	2.6	A	130	197	2420
Southbound Right (Bluebonnet)	0.1	A	0	1	0.1	A	0	1	0.1	A	0	1	0.2	A	0	1	0.2	A	0	1	160
Eastbound Left (Oliphant)	34.3	C	5	35	32.6	C	5	36	32.3	C	5	37	33.0	C	6	39	32.7	C	6	39	620
Eastbound Thru (Oliphant)	34.3	C	5	35	32.6	C	5	36	32.3	C	5	37	33.0	C	6	39	32.7	C	6	39	620
Eastbound Right (Oliphant)	34.3	C	5	35	32.6	C	5	36	32.3	C	5	37	33.0	C	6	39	32.7	C	6	39	620
Westbound Left (Oliphant)	25.4	C	0	30	28.9	C	2	33	28.9	C	2	33	30.8	C	4	36	30.7	C	4	36	1350
Westbound Thru (Oliphant)	25.4	C	0	30	28.9	C	2	33	28.9	C	2	33	30.8	C	4	36	30.7	C	4	36	1350
Westbound Right (Oliphant)	25.4	C	0	30	28.9	C	2	33	28.9	C	2	33	30.8	C	4	36	30.7	C	4	36	1350
Overall	**2.1**	**A**			**2.1**	**A**			**2.4**	**A**			**2.3**	**A**			**2.8**	**A**			
Gail Dr at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	1.1	A	1	m1	0.5	A	0	m0	0.5	A	0	m0	0.7	A	0	m0	0.9	A	1	m0	130
Northbound Thru (Bluebonnet)	1.0	A	48	44	0.5	A	15	11	0.6	A	45	0	0.7	A	20	5	0.8	A	39	1	920
Northbound Right (Bluebonnet)	0.0	A	0	m0	0.0	A	0	m0	0.0	A	0	m0	0.0	A	0	m0	0.0	A	0	m0	155
Southbound Left (Bluebonnet)	0.0	A	0	0	0.0	A	0	0	0.0	A	0	0	0.0	A	0	0	0.0	A	0	0	145
Southbound Thru (Bluebonnet)	1.9	A	78	117	2.6	A	104	207	2.8	A	111	234	3.0	A	124	258	3.2	A	132	287	1700
Southbound Right (Bluebonnet)	0.0	A	0	m0	0.0	A	0	m0	0.0	A	0	m0	0.0	A	0	m0	0.0	A	0	m0	200
Eastbound Left (Gail)	25.6	C	0	30	28.6	C	2	33	29.3	C	3	35	31.1	C	5	38	31.8	C	5	39	1070
Eastbound Thru (Gail)	0.0	A	0	0	0.0	A	0	0	0.0	A	0	0	0.0	A	0	0	0.0	A	0	0	1070
Eastbound Right (Gail)	25.6	C	0	30	28.6	C	2	33	29.3	C	3	35	31.1	C	5	38	31.8	C	5	39	1070
Westbound Left (Gail)	14.2	B	0	16	17.0	B	0	19	17.0	B	0	19	17.7	B	0	20	17.7	B	0	20	1250
Westbound Thru (Gail)	0.0	A	0	0	0.0	A	0	0	0.0	A	0	0	0.0	A	0	0	0.0	A	0	0	1250
Westbound Right (Gail)	14.2	B	0	16	17.0	B	0	19	17.0	B	0	19	17.7	B	0	20	17.7	B	0	20	1250
Overall	**1.8**	**A**			**1.9**	**A**			**2.1**	**A**			**2.2**	**A**			**2.4**	**A**			
Blue Cross Pkwy at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	1.8	A	1	m2	3.5	A	4	m3	4.5	A	4	m6	3.4	A	3	m3	5.5	A	4	m8	425
Northbound Thru (Bluebonnet)	3.7	A	30	60	4.8	A	90	128	5.2	A	89	154	5.4	A	65	137	5.4	A	102	155	770
Northbound Right (Bluebonnet)	0.9	A	2	7	1.7	A	7	14	1.5	A	2	m19	1.7	A	6	m14	1.1	A	3	m14	210
Southbound Left (Bluebonnet)	3.8	A	1	m4	7.3	A	3	m5	7.0	A	3	m5	7.2	A	3	m5	6.9	A	3	m0	500
Southbound Thru (Bluebonnet)	10.0	B	294	382	11.3	B	396	532	11.3	B	433	526	15.9	B	584	619	15.8	B	605	356	950
Southbound Right (Bluebonnet)	2.5	A	1	m2	1.4	A	1	m1	1.6	A	1	m2	2.7	A	2	m1	2.9	A	2	m2	200
Eastbound Left (Blue Cross)	56.8	E	25	65	57.4	E	26	67	57.8	E	26	67	57.3	E	28	70	57.1	E	28	70	80
Eastbound Thru (Blue Cross)	0.7	A	0	0	1.1	A	0	0	1.2	A	0	0	1.4	A	0	0	1.5	A	0	0	300
Eastbound Right (Blue Cross)	0.7	A	0	0	1.1	A	0	0	1.2	A	0	0	1.4	A	0	0	1.5	A	0	0	300
Westbound Left (Blue Cross)	58.1	E	44	73	59.0	E	50	80	59.6	E	51	84	60.0	E	54	88	60.2	E	56	90	230
Westbound Thru (Blue Cross)	55.0	E	5	20	54.5	D	5	20	54.3	D	5	20	54.7	D	5	20	54.7	D	5	20	1090
Westbound Right (Blue Cross)	33.8	C	3	13	32.6	C	3	13	32.8	C	3	13	33.0	C	3	14	33.0	C	3	14	1090
Overall	**9.3**	**A**			**10.6**	**B**			**10.9**	**B**			**13.1**	**B**			**13.1**	**B**			
I-10 WB at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	35.5	D	145	#307	26.0	C	69	132	34.7	C	93	142	31.5	C	86	185	41.1	D	118	198	290
Northbound Thru (Bluebonnet)	3.7	A	32	67	4.3	A	44	64	5.4	A	78	68	5.2	A	61	93	6.1	A	60	56	290
Southbound Thru (Bluebonnet)	27.9	C	474	554	20.7	C	636	372	15.0	B	457	176	20.7	C	678	396	17.4	B	526	427	740
Southbound Right (Bluebonnet)	3.3	A	34	9	2.0	A	36	1	15.0	B	457	176	1.0	A	17	2	17.4	B	526	427	645
Westbound Left (WB I-10 Ramp)	67.3	E	90	149	66.2	E	57	107	54.3	D	62	115	66.6	E	63	114	55.1	E	66	123	2820
Westbound Thru (WB I-10 Ramp)	67.4	E	91	151	66.2	E	57	107	54.1	D	61	114	66.0	E	63	113	55.0	E	66	123	2820
Westbound Right (WB I-10 Ramp)	8.2	A	0	77	24.8	C	134	205	28.6	C	140	229	26.0	C	153	228	31.4	C	165	262	580
Overall	**22.2**	**C**			**17.6**	**B**			**17.5**	**B**			**18.7**	**B**			**19.9**	**B**			

m - indicates that upstream metering is in effect | # - indicates that the 95th percentile volume exceeds capacity | ~ - indicates that the volume exceeds capacity and queue is theoretically infinite

Table 22: Bluebonnet Boulevard Analysis Results Weekend Continued

	2015 Existing				2017 No Build				2017 Build				2037 No Build				2037 Build				Available Storage Length (feet)
I-10 EB at Bluebonnet Blvd	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	
Northbound Thru (Bluebonnet)	8.8	A	161	199	10.1	B	131	181	12.6	B	206	221	11.2	B	160	234	12.0	B	156	222	775
Northbound Right (Bluebonnet)	1.4	A	6	13	2.1	A	4	24	2.3	A	4	25	2.1	A	8	33	2.0	A	4	12	775
Southbound Left (Bluebonnet)	38.7	D	182	m253	25.9	C	157	m196	32.9	C	105	136	28.4	C	162	m204	30.8	C	110	141	300
Southbound Thru (Bluebonnet)	15.7	B	81	146	7.6	A	54	80	10.6	B	63	98	10.0	B	63	127	10.9	B	68	74	300
Eastbound Left (EB I-10 Ramp)	54.0	D	48	92	64.2	E	53	101	52.6	D	51	100	64.7	E	60	109	53.5	D	56	108	1925
Eastbound Thru (EB I-10 Ramp)	54.0	D	49	92	64.0	E	55	104	52.5	D	52	103	63.9	E	60	110	53.2	D	57	110	1925
Eastbound Right (EB I-10 Ramp)	1.4	A	0	0	0.7	A	0	0	27.5	C	190	254	0.8	A	0	0	28.9	C	215	285	1925
Overall	**11.8**	**B**			**10.4**	**B**			**16.1**	**B**			**11.8**	**B**			**16.1**	**B**			
Mall Drive 1/Dijon Ext at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	30.0	C	17	m14	22.4	C	7	m16	16.4	B	31	m66	25.7	C	8	m20	21.3	C	37	m103	145
Northbound Thru (Bluebonnet)	6.0	A	86	120	8.7	A	90	133	9.5	A	87	141	9.9	A	111	167	11.1	B	86	156	940
Northbound Right (Bluebonnet)	0.3	A	0	m1	1.0	A	0	m2	1.3	A	0	m3	1.1	A	0	m3	1.1	A	0	m2	255
Southbound Left (Bluebonnet)	32.8	C	95	m114	49.8	D	104	142	40.9	D	96	m122	47.4	D	116	m142	43.8	D	108	m128	325
Southbound Thru (Bluebonnet)	14.6	B	276	556	13.3	B	311	436	28.9	C	376	463	14.8	B	419	488	23.8	C	372	449	750
Southbound Right (Bluebonnet)	0.3	A	0	m1	0.0	A	0	m0	7.9	A	32	m48	0.0	A	0	m0	1.4	A	8	m9	95
Eastbound Left (Dijon Extension)	63.0	E	19	49	46.0	D	17	43	66.3	E	117	182	44.8	D	19	45	65.5	E	125	190	1300
Eastbound Thru (Dijon Extension)	34.7	C	5	34	23.6	C	5	31	15.6	B	13	72	22.4	C	6	33	15.1	B	14	75	1300
Eastbound Right (Dijon Extension)	34.7	C	5	34	23.6	C	5	31	15.6	B	13	72	22.4	C	6	33	15.1	B	14	75	1300
Westbound Right (Mall Drive 1)	47.9	D	148	209	21.2	C	61	107	46.2	D	150	191	26.2	C	79	135	44.2	D	158	203	220
Overall	**16.8**	**B**			**15.8**	**B**			**25.5**	**C**			**17.3**	**B**			**23.9**	**C**			
Mall Drive 1 at Mall Ring Rd																					
Northbound Left (Mall Ring Rd)	4.2	A	42	5	6.1	A	47	26	5.2	A	47	5	5.8	A	53	9	3.8	A	19	16	720
Northbound Thru (Mall Ring Rd)	3.9	A	121	17	6.1	A	102	83	5.1	A	103	9	5.5	A	117	20	3.6	A	82	38	720
Southbound Thru (Mall Ring Rd)	50.6	D	168	231	50.6	D	159	220	50.4	D	161	222	48.9	D	173	228	47.4	D	174	230	1150
Southbound Right (Mall Ring Rd)	2.8	A	0	41	2.4	A	0	36	2.3	A	0	35	2.1	A	0	32	2.0	A	0	31	1150
Easttbound Left (Mall Drive 1)	48.7	D	100	67	60.9	E	126	157	59.1	E	125	158	61.3	E	139	172	58.6	E	138	170	200
Eastbound Right (Mall Drive 1)	48.7	D	100	67	60.9	E	126	157	59.1	E	125	158	61.3	E	139	172	58.6	E	138	170	200
Overall	**22.1**	**C**			**25.9**	**C**			**25.3**	**C**			**25.5**	**C**			**24.1**	**C**			
Mall Drive 2/Picardy Ave at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	28.2	C	33	m58	34.2	C	73	m83	29.6	C	46	m46	34.3	C	57	m108	30.7	C	45	m65	235
Northbound Thru (Bluebonnet)	18.2	B	161	151	26.1	C	269	84	24.0	C	292	90	24.5	C	168	191	23.6	C	272	260	855
Northbound Right (Bluebonnet)	3.9	A	6	m6	9.1	A	37	m14	7.6	A	29	m12	8.0	A	17	m18	7.5	A	26	m38	250
Southbound Left (Bluebonnet)	56.7	E	94	#190	48.5	D	91	135	49.3	D	94	137	54.1	D	108	145	41.7	D	87	150	330
Southbound Thru (Bluebonnet)	8.8	A	106	24	17.3	B	54	108	9.2	A	34	98	19.6	B	121	114	8.0	A	30	98	970
Southbound Right (Bluebonnet)	4.0	A	18	9	10.6	B	19	52	6.2	A	6	26	11.8	B	43	54	4.6	A	4	m23	195
Eastbound Left (Picardy)	47.8	D	50	87	46.9	D	59	94	45.7	D	37	69	47.7	D	61	106	46.9	D	39	74	355
Eastbound Thru (Picardy)	24.4	C	23	57	21.4	C	25	58	22.8	C	16	46	21.9	C	26	65	23.5	C	17	50	590
Eastbound Right (Picardy)	24.4	C	23	57	21.4	C	25	58	22.8	C	16	46	21.9	C	26	65	23.5	C	17	50	590
Westbound Left (Mall Drive 2)	32.2	C	38	57	28.9	C	36	48	27.0	C	37	54	26.1	C	38	m53	30.6	C	41	59	300
Westbound Thru (Mall Drive 2)	31.4	C	27	44	27.1	C	23	m32	25.6	C	16	m26	24.9	C	24	m35	29.3	C	18	m28	300
Westbound Right (Mall Drive 2)	39.9	D	172	257	24.8	C	142	161	31.3	C	185	251	24.9	C	158	168	31.7	C	202	238	300
Overall	**20.8**	**C**			**25.3**	**C**			**21.8**	**C**			**26.1**	**C**			**20.7**	**C**			
Mall Drive 2 at Mall Ring Rd																					
Northbound Left (Mall Ring Rd)	46.1	D	217	307	65.9	E	233	304	57.5	E	232	278	47.0	D	166	304	45.3	D	176	280	950
Northbound Thru (Mall Ring Rd)	34.0	C	224	316	43.3	D	224	308	40.6	D	226	305	26.4	C	156	288	27.8	C	171	267	950
Southbound Thru (Mall Ring Rd)	14.9	B	77	286	24.5	C	130	286	22.9	C	111	292	24.7	C	88	307	29.8	C	222	315	720
Southbound Right (Mall Ring Rd)	0.1	A	0	0	0.1	A	0	0	0.1	A	0	0	0.2	A	0	0	0.2	A	0	0	720
Easttbound Left (Mall Drive 2)	41.5	D	157	163	24.7	C	128	143	36.2	D	135	154	28.0	C	138	140	33.4	C	225	151	300
Eastbound Right (Mall Drive 2)	0.2	A	0	1	0.2	A	0	0	0.2	A	0	0	0.2	A	0	0	0.2	A	0	0	300
Overall	**26.9**	**C**			**30.5**	**C**			**30.6**	**C**			**24.5**	**C**			**26.5**	**C**			

m - indicates that upstream metering is in effect | # - indicates that the 95th percentile volume exceeds capacity | ~ - indicates that the volume exceeds capacity and queue is theoretically infinite

Table 23: Bluebonnet Boulevard Analysis Results Weekend Continued

	2015 Existing				2017 No Build				2017 Build				2037 No Build				2037 Build				Available Storage Length (feet)
Mall Drive 3 at Bluebonnet Blvd	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	Delay (sec.)	LOS	50% Queue (feet)	95% Queue (feet)	
Northbound Thru (Bluebonnet)	21.7	C	453	151	21.6	C	306	290	21.9	C	312	301	19.1	B	197	197	20.0	C	377	236	740
Northbound Right (Bluebonnet)	4.3	A	166	33	5.8	A	74	289	5.8	A	83	311	6.3	A	87	87	6.7	A	256	170	170
Southbound Left (Bluebonnet)	82.9	F	57	103	84.7	F	99	159	85.5	F	104	168	86.9	F	167	167	86.8	F	113	180	345
Southbound Thru (Bluebonnet)	2.3	A	30	30	2.4	A	43	35	2.9	A	43	34	2.6	A	31	31	2.0	A	34	39	840
Westbound Left (Mall Drive 3)	20.3	C	89	123	18.0	B	53	85	16.1	B	52	84	19.6	B	101	101	20.4	C	79	100	155
Westbound Right (Mall Drive 3)	11.6	B	50	67	7.0	A	28	44	6.7	A	34	55	11.1	B	52	52	10.0	B	65	57	110
Overall	**12.8**	**B**			**13.2**	**B**			**13.4**	**B**			**13.1**	**B**			**13.3**	**B**			
Mall Drive 3 at Mall Ring Rd																					
Northbound Thru (Mall Ring Rd)	30.9	C	141	217	29.7	C	127	176	30.4	C	132	183	36.5	D	157	216	37.0	D	160	220	2350
Northbound Right (Mall Ring Rd)	30.9	C	141	217	29.7	C	127	176	30.4	C	132	183	36.5	D	157	216	37.0	D	160	220	2350
Southbound Left (Mall Drive 3)	52.0	D	182	236	52.8	D	208	333	53.0	D	208	338	13.6	B	71	214	13.5	B	67	217	150
Southbound Thru (Mall Drive 3)	28.7	C	171	262	27.8	C	194	322	28.0	C	195	334	7.3	A	66	199	7.3	A	63	205	150
Westbound Left (Mall Ring Rd)	13.5	B	28	82	35.8	D	96	164	31.6	C	84	138	69.9	E	198	#347	79.2	E	90	#378	950
Westbound Right (Mall Ring Rd)	4.2	A	0	45	10.2	B	51	100	8.0	A	36	79	4.2	A	0	102	7.9	A	0	145	950
Overall	**28.1**	**C**			**32.8**	**C**			**32.1**	**C**			**25.4**	**C**			**27.4**	**C**			
Anselmo Ln at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	60.5	E	29	65	64.4	E	50	97	64.4	E	50	97	65.4	E	55	105	65.4	E	55	105	380
Northbound Thru (Bluebonnet)	11.7	B	224	681	8.4	A	173	432	8.7	A	186	457	9.3	A	209	501	9.7	A	226	532	2460
Northbound Right (Bluebonnet)	11.7	B	224	681	8.4	A	173	432	8.7	A	186	457	9.3	A	209	501	9.7	A	226	532	2460
Southbound Left (Bluebonnet)	52.0	D	1	m2	52.0	D	1	m2	60.0	E	1	m2	51.0	D	1	m2	43.0	D	1	m1	135
Southbound Thru (Bluebonnet)	13.8	B	160	#831	9.3	A	126	216	8.8	A	122	216	12.1	B	217	247	11.1	B	208	246	765
Southbound Right (Bluebonnet)	2.1	A	10	24	1.9	A	13	26	1.7	A	14	25	1.8	A	5	26	1.6	A	6	21	170
Eastbound Left (Anselmo)	54.2	D	78	130	59.7	E	80	144	59.9	E	82	148	59.9	E	87	155	60.0	E	89	158	480
Eastbound Thru (Anselmo)	54.5	D	80	132	59.9	E	80	145	60.1	E	83	150	60.0	E	88	157	60.5	E	91	161	2650
Eastbound Right (Anselmo)	35.7	D	50	85	36.9	D	49	95	36.8	D	49	95	36.4	D	53	101	36.2	D	53	101	500
Westbound Left (Anselmo)	0.0	A	0	0	0.0	A	0	0	0.0	A	0	0	0.0	A	0	0	0.0	A	0	0	150
Westbound Thru (Anselmo)	0.0	A	0	0	0.0	A	0	0	0.0	A	0	0	0.0	A	0	0	0.0	A	0	0	1065
Westbound Right (Anselmo)	0.0	A	0	0	0.0	A	0	0	0.0	A	0	0	0.0	A	0	0	0.0	A	0	0	1065
Overall	**15.7**	**B**			**13.5**	**B**			**13.3**	**B**			**15.1**	**B**			**14.8**	**B**			
Park Rowe Ave at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	79.5	E	36	m54	57.6	E	49	m71	56.6	E	48	m71	57.8	E	53	m75	57.8	E	54	m76	170
Northbound Thru (Bluebonnet)	38.0	D	681	588	27.0	C	432	401	27.6	C	443	m474	28.6	C	455	m502	29.5	C	460	m552	560
Northbound Right (Bluebonnet)	10.0	B	15	m16	12.7	B	25	m50	13.7	B	26	m50	14.5	B	30	m0	14.9	B	31	m0	170
Southbound Left (Bluebonnet)	80.5	F	158	210	75.9	E	188	237	76.0	E	194	243	76.9	E	206	259	77.3	E	211	267	180
Southbound Thru (Bluebonnet)	19.5	B	480	512	25.1	C	386	524	25.9	C	408	555	26.5	C	450	567	26.8	C	477	582	2420
Southbound Right (Bluebonnet)	19.5	B	480	512	25.1	C	386	524	25.9	C	408	555	26.5	C	450	567	26.8	C	477	582	2420
Eastbound Left (Park Rowe)	80.2	F	134	#285	89.4	F	139	208	89.2	F	143	211	94.1	F	153	231	94.3	F	156	236	270
Eastbound Thru (Park Rowe)	25.8	C	20	72	24.2	C	21	66	23.9	C	21	66	23.7	C	22	71	23.5	C	22	71	270
Eastbound Right (Park Rowe)	25.8	C	20	72	24.2	C	21	66	23.9	C	21	66	23.7	C	22	71	23.5	C	22	71	270
Westbound Left (Park Rowe)	49.9	D	48	95	49.0	D	50	88	48.5	D	50	87	49.0	D	55	96	48.6	D	54	96	500
Westbound Thru (Park Rowe)	49.9	D	48	95	49.0	D	50	88	48.5	D	50	87	49.0	D	55	96	48.6	D	54	96	500
Westbound Right (Park Rowe)	34.1	C	102	169	30.9	C	105	138	30.4	C	107	140	30.1	C	112	153	29.7	C	113	157	125
Overall	**36.0**	**D**			**35.7**	**D**			**36.1**	**D**			**37.1**	**D**			**37.5**	**D**			
Perkins Rd at Bluebonnet Blvd																					
Northbound Left (Bluebonnet)	60.1	E	93	131	44.1	D	118	173	44.6	D	119	173	46.2	D	135	188	46.7	D	136	188	365
Northbound Thru (Bluebonnet)	48.1	D	458	521	44.1	D	372	455	45.2	D	386	468	48.0	D	426	513	49.7	D	440	528	3690
Northbound Right (Bluebonnet)	48.1	D	458	521	44.1	D	372	455	45.2	D	386	468	48.0	D	426	513	49.7	D	440	528	3690
Southbound Left (Bluebonnet)	83.1	F	144	219	58.0	E	169	192	60.2	E	176	204	63.7	E	183	218	65.8	E	174	230	265
Southbound Thru (Bluebonnet)	38.7	D	361	424	52.3	D	323	261	54.2	D	333	284	53.9	D	351	331	55.3	E	361	355	575
Southbound Right (Bluebonnet)	10.0	B	49	111	20.7	C	101	46	20.7	C	103	69	19.2	B	88	80	19.1	B	77	87	195
Eastbound Left (Perkins)	74.8	E	135	182	109.0	F	93	#167	114.3	F	96	#174	125.7	F	102	#188	132.6	F	~106	#195	415
Eastbound Thru (Perkins)	64.8	E	303	#413	95.3	F	~411	#543	95.3	F	~411	#543	122.0	F	~487	#621	122.0	F	~487	#621	6800
Eastbound Right (Perkins)	21.0	C	95	141	59.2	E	~658	#1345	102.3	F	~667	#1345	157.3	F	~937	#1518	161.1	F	~958	#1518	315
Westbound Left (Perkins)	75.0	E	139	189	154.3	F	~286	#402	154.3	F	~286	#402	193.0	F	~333	#452	193.0	F	~333	#452	610
Westbound Thru (Perkins)	71.5	E	344	#492	71.1	E	454	#583	71.1	E	454	#583	89.2	F	~537	#674	89.2	F	~537	#674	960
Westbound Right (Perkins)	42.1	D	267	406	38.1	D	361	489	38.9	D	378	515	40.4	D	407	555	41.4	D	429	585	355
Overall	**54.3**	**D**			**74.3**	**E**			**75.3**	**E**			**94.1**	**F**			**95.0**	**F**			

m - indicates that upstream metering is in effect | # - indicates that the 95th percentile volume exceeds capacity | ~ - indicates that the volume exceeds capacity and queue is theoretically infinite

6.0 SAFETY ANALYSIS

The following safety analyses were performed as part of the proposed Dijon Extension project using crash data for years 2012, 2013 and 2014. The crashes were analyzed for the types of collision, severity of crashes and their proportions compared to statewide averages. Overrepresented crashes are identified for mitigation. The crash rates for the intersections were also developed based on available AADT information or turning movement counts. The intersections considered in the analyses are listed below:

1. LA 3064 (Essen Lane) at Dijon Drive
2. LA 3064 (Essen Lane) at Margaret Ann Avenue
3. LA 1248 (Bluebonnet Boulevard) at Mall Drive 1
4. LA 1248 (Bluebonnet Boulevard) at Mall Drive 2/Picardy Avenue

Figure 40 and Figure 41 show the segments of Bluebonnet Blvd and Essen Lane respectively that have abnormal crash rates.

Figure 40: Abnormal Crash Location on Bluebonnet Blvd

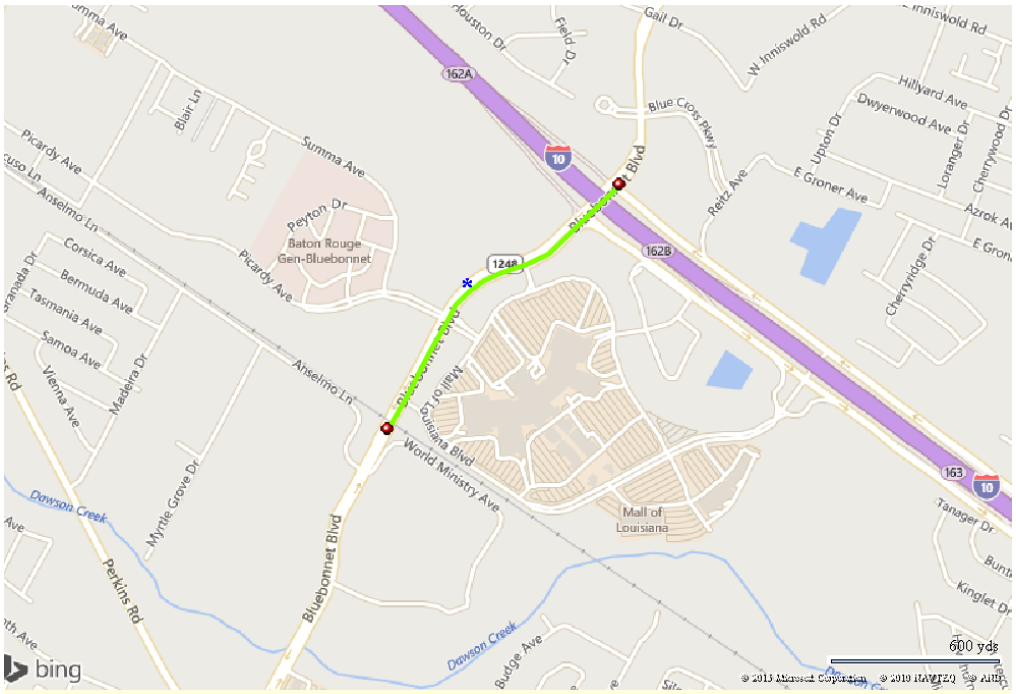
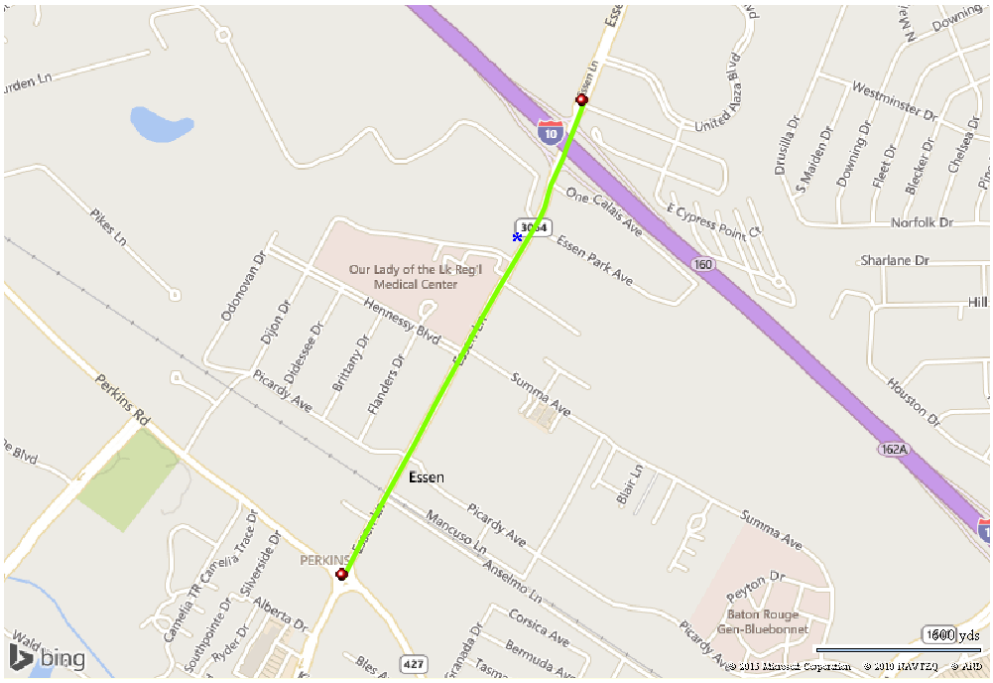


Figure 41: Abnormal Crash Location on Essen Lane



6.1 SAFETY ANALYSIS (DIJON DRIVE AND MARGARET ANN AVENUE AT ESSEN LANE)

Crashes used in the analyses were limited to those within Csect 258-32 from logmile 0.678 to logmile 0757. A total of 73 crashes occurred within this location during the three-year period. Due to the proximity of Dijon Drive and Margaret Ann Avenue (less than 200 feet apart), the crashes in the segment between these intersections were treated as intersection related crashes. DOTD defines intersection related crashes as crashes that occur within 150 feet of an intersection. **Figure 42** shows the location of these crashes near Dijon Drive and Margaret Ann Avenue. **Table 24** and **Table 25** show the proportions by crash severity for Margaret Ann Avenue and Dijon Drive respectively. **Table 26** and **Table 27** show the crash proportions by manner of collision for Margaret Ann Avenue and Dijon Drive respectively and how they compare to statewide averages. Crashes highlighted in yellow show crashes that are proportionally higher than the statewide average for the roadway classification, also known as overrepresented crashes.

Figure 42: Spatial distribution of crashes (Dijon Drive and Margaret Ann Avenue)

Table 24: Crash Severity (Margaret Ann Avenue)

Crash Severity	# Crashes	Proportion
PDO	44	81.5%
Fatal	0	0.0%
Injury	10	18.5%

Table 25: Crash Severity (Dijon Drive)

Crash Severity	# Crashes	Proportion
PDO	14	73.7%
Fatal	0	0.0%
Injury	5	26.3%

Table 26: Manner of Collision (Margaret Anne Avenue)

Manner of Collision	# Crashes	Proportion	Statewide Avg
Left Turn Opp Dir	2	3.70%	3.55%
Left Turn Same Dir	1	1.85%	2.47%
Non Collision	1	1.85%	3.78%
Other	1	1.85%	7.12%
Rear End	39	72.22%	38.57%
Right Turn Angle	1	1.85%	1.93%
Right Angle	4	7.41%	15.99%
Side Swipe Opp Direction	1	1.85%	0.52%
Side Swipe Same Direction	4	7.41%	20.29%

Table 27: Manner of Collision (Dijon Drive)

Manner of Collision	# Crashes	Proportion	Statewide Avg
Left Turn Same Direction	1	5.26%	2.47%
Rear End	10	52.63%	38.57%
Right Turn - Angle	1	5.26%	1.93%
Right Angle	5	26.32%	15.99%
Side Swipe Same Direction	2	10.53%	20.29%

6.2 SAFETY ANALYSIS (MALL DRIVE 1 AND MALL DRIVE 2 AT BLUEBONNET BOULEVARD)

Crashes for Mall Drive 1 analysis were limited to those that occurred with Csect 258-33 from logmile 5.4 to logmile 5.6. A total of 53 intersection related crashes occurred within this location during the three-year period. Crashes for Mall Drive 2 analysis were obtained from Csect 258-33 logmile 5.32 to logmile 5.39. A total of 75 intersection related crashes occurred at this location during the three year period. **Figure 43** shows the locations of the crashes near Mall Drive 1 and Mall Drive 2. **Table 28, Table 29, Table 30** and **Table 31** show the crash proportions for severity and manner of collision for Mall Drive 1 and Mall Drive 2 at Bluebonnet Boulevard. Crashes highlighted in yellow show crashes that are proportionally higher than the statewide average for the roadway classification, also known as overrepresented crashes.

Figure 43: Spatial distribution of crashes (Mall Drive 1 and Mall Drive 2)

Table 28: Crash Severity (Mall Drive 1)

Crash Severity	# Crashes	Proportion
PDO	48	90.6%
Fatal	0	0.0%
Injury	5	9.4%

Table 29: Manner of Collisions (Mall Drive 1)

Manner of Collision	# Crashes	Proportion	Statewide Avg
Left Turn Angle	1	1.89%	1.82%
Non Collision	2	3.77%	3.78%
Other	2	3.77%	7.12%
Rear End	24	45.28%	38.57%
Right Turn Angle	2	3.77%	1.93%
Right Angle	9	16.98%	15.99%
Side Swipe Same Directi	13	24.53%	20.29%

Table 30: Crash Severity (Bluebonnet Blvd at Mall Drive 2)

Crash Severity	# Crashes	Proportion
PDO	57	76.0%
Fatal	0	0.0%
Injury	18	24.0%

Table 31: Manner of Collision (Mall Drive 2)

Manner of Collision	# Crashes	Proportion	Statewide Avg
Left Turn Angle	2	2.67%	4.70%
Left Turn Opposite Direction	4	5.33%	3.55%
Left Turn Same Direction	1	1.33%	2.47%
Non Collision	2	2.67%	3.78%
Other	1	1.33%	7.12%
Head On	1	1.33%	0.71%
Rear End	41	54.67%	38.57%
Right Turn Angle	1	1.33%	1.93%
Right Turn Opposite Direction	1	1.33%	0.35%
Right Angle	11	14.67%	15.99%
Side Swipe Same Direction	10	13.33%	20.29%

6.3 INTERSECTION CRASH RATES

Annual Average daily traffic (AADT) counts for traffic entering each of the intersections in the study are not available; therefore volumes used for the crash rates are based on estimates[1]. The peak hour turning movement counts were grown by the K-factor to arrive at the AADT needed to calculate the crash rates. The intersection crash rate for Margaret Ann Avenue was estimated at 0.79 crashes per million entering vehicles (MEV). The crash rate for Dijon Drive was estimated at 0.28 crashes per MEV.

The intersection crash rate for Mall Drive 1 at Bluebonnet Blvd was estimated to be 0.87 crashes per MEV. The intersection crash rate for Mall Drive 2 at Bluebonnet Boulevard was estimated to be 1.21 crashes per MEV. The statewide average for intersections on urban 6-lane roadway is 0.45 crashes per million entering vehicles. Intersections with crash rates more than two times the statewide average are classified as abnormal locations. Consequently, the intersection of Bluebonnet Boulevard at Mall Drive 2 can be classified as an abnormal crash location.

6.4 IMPACTS OF PROPOSED IMPROVEMENTS ON SAFETY

The AADTs on Essen Lane and Bluebonnet Boulevard exceed the limits of the HSM predictive tool and therefore no reliable crash predictions or quantitative analysis can be provided to assess the safety impacts of the proposed alignment. A surrogate measure for safety using conflict points was therefore used to evaluate safety performance: the higher the number of conflict points traversed on an alignment, the higher the probability of a crash.

The proposed roadway configuration near Dijon Drive and Essen Lane includes terminating Dijon Extension at the existing intersection of Essen Lane at Dijon Drive. The Margaret Ann Avenue intersection would be reconfigured into a T-intersection with the access to the hospital closed, and a right-in-right-out access to and from Margaret Anne Avenue east of Essen Lane. This closure and restriction of access will reduce the conflict points from 32 to 2. The fewer the conflicts points, the lesser the potential for crashes. In addition to reducing the number of conflict points, the skew between Dijon Drive and Margaret Ann will be eliminated and therefore any unsafe maneuvers because of the short distance (less than 200 feet) between the intersections that could consequently lead to crashes on Essen Lane will be removed. Furthermore, the driving task will be simplified for drivers from Margaret Ann who can only make right turns onto Essen Lane. Traffic that needs to make a left turn onto southbound Essen Lane can use Dijon Extension which will be a signalized intersection and safer for left turning vehicles. Simplifying operations generally enhances safety. The proposed median access on Dijon Extension to Margaret Ann Avenue will introduce nine (9) new conflict points at that location.

[1] Volumes used in the analyses are estimates and may differ significantly from actual volumes that entered the intersection

However the lower volume of traffic on Dijon Extension compared to Essen Lane should reduce the exposure and hence the number of crashes expected.

The proposed roadway configuration near Bluebonnet Boulevard terminates the proposed Dijon Extension at the existing intersection of Mall Drive 1 and Bluebonnet Boulevard. This alignment does not introduce any new conflicting movements near the terminal point because the driveway already exists. However, an increase in the volume of traffic entering this intersection could increase the number of crashes experienced over time. The crash performance of the existing intersection (Mall Drive 1 at Bluebonnet Boulevard) has a crash rate of 0.87 crashes per MEV.

7.0 CONCLUSION

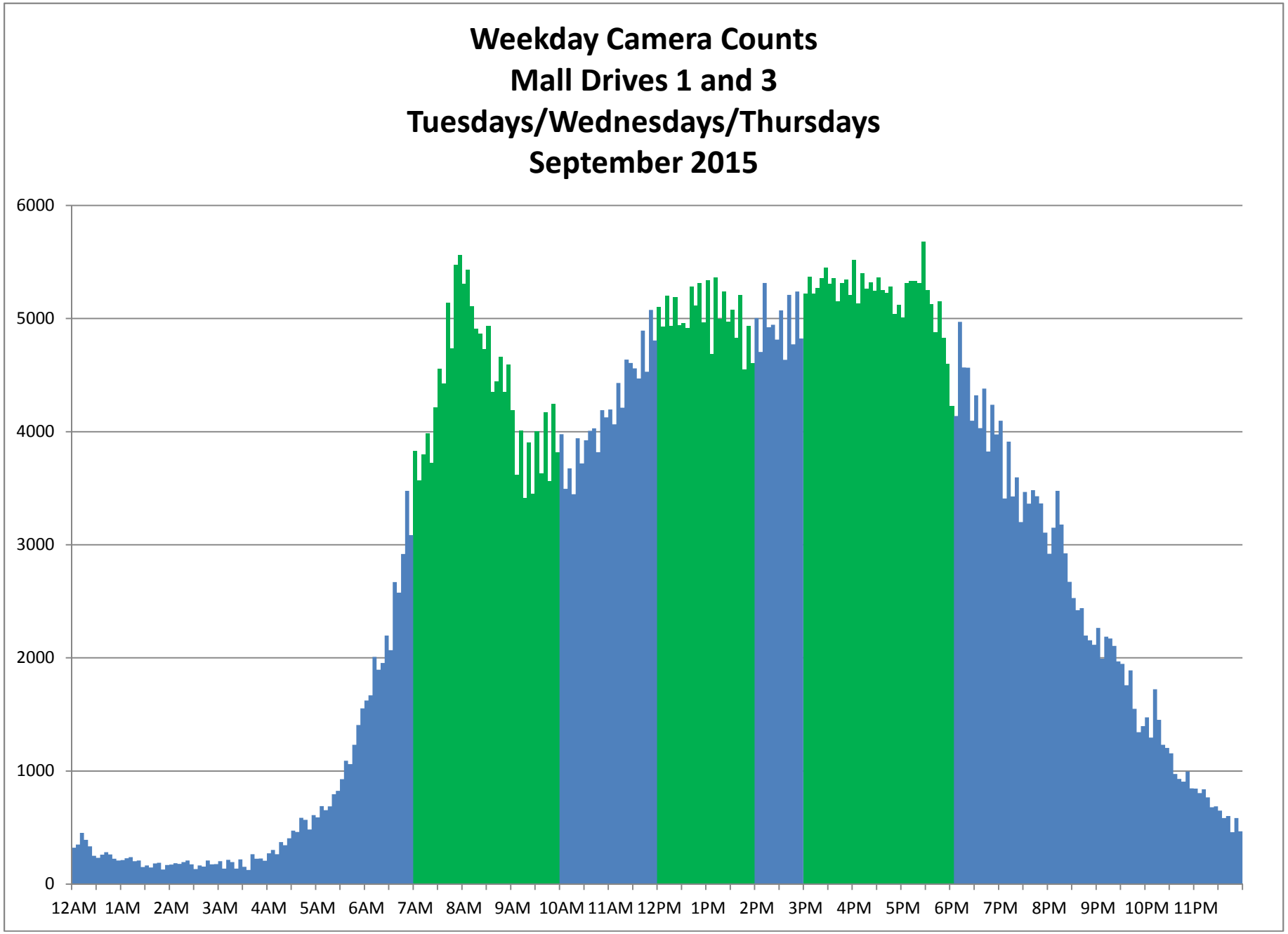
The proposed Dijon Extension would provide an additional route connecting Essen Lane and Bluebonnet Boulevard along with access to new medical developments. This roadway would help provide a more thorough street grid within the medical district, which is critical with regard to giving emergency vehicles more access options.

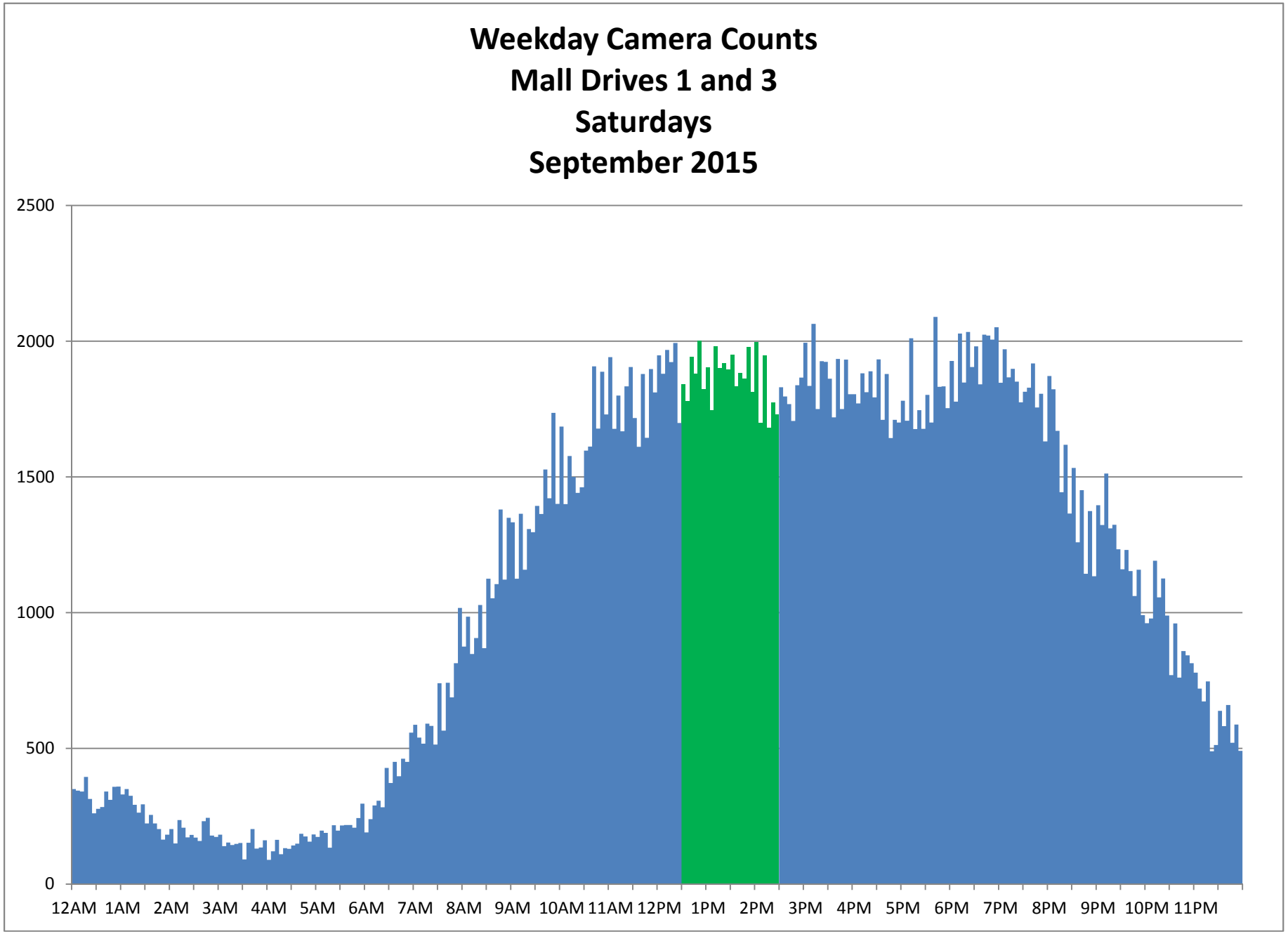
The traffic models confirm that the Dijon Extension project will mainly provide additional circulation for traffic accessing medical sites that are present in both the No Build and Build scenarios. The results show that with the implementation of Dijon Extension there is neither a negative nor positive impact on the intersections outside of the Dijon Extension termini.

There are, however, increases in queue lengths and delay at the Dijon Extension termini locations during the AM and PM peak periods compared to the No Build scenario. While these operational degradations may exist, there are potential significant safety and access improvements associated with the deployment of Dijon Extension along with operational improvements at the Bluebonnet Boulevard and I-10 interchange.

APPENDICES

Appendix A: CAMERA COUNTS


Weekday Camera Counts
Mall Drives 1 and 3
Tuesdays/Wednesdays/Thursdays
September 2015
6000
5000
4000
3000
2000
1000
0
12AM 1AM 2AM 3AM 4AM 5AM 6AM 7AM 8AM 9AM 10AM 11AM 12PM 1PM 2PM 3PM 4PM 5PM 6PM 7PM 8PM 9PM 10PM 11PM


Weekday Camera Counts
Mall Drives 1 and 3
Saturdays
September 2015
2500
2000
1500
1000
500
0
12AM 1AM 2AM 3AM 4AM 5AM 6AM 7AM 8AM 9AM 10AM 11AM 12PM 1PM 2PM 3PM 4PM 5PM 6PM 7PM 8PM 9PM 10PM 11PM

Appendix B : RAW COUNTS

Southern Traffic Services, Inc.

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ESSEN LN @ UNITED PLAZA BLVD
BATON ROUGE, LOUISIANA

File Name : 15076-12 ESSEN LN @ UNITED PLAZA DRppd
Site Code : 15076-12
Start Date : 10/8/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	ESSEN LN Southbound			UNITED PLAZA BLVD Westbound			ESSEN LN Northbound			
Start Time	Left	Thru	Peds	Left	Right	UTRNS	Thru	Right	UTRNS	Int. Total
07:00	79	249	0	4	6	0	352	33	0	723
07:15	80	321	0	5	3	0	402	43	0	854
07:30	92	305	0	1	7	0	436	37	0	878
07:45	97	279	0	6	9	0	469	51	0	911
Total	348	1154	0	16	25	0	1659	164	0	3366
08:00	91	266	0	4	9	0	470	51	1	892
08:15	59	245	0	6	9	0	410	42	1	772
08:30	70	243	0	3	10	0	354	23	0	703
08:45	48	229	0	4	15	0	347	21	1	665
Total	268	983	0	17	43	0	1581	137	3	3032
09:00	29	185	1	4	13	0	288	16	0	536
09:15	14	174	0	6	12	0	307	16	1	530
09:30	23	187	0	8	13	0	321	15	1	568
09:45	15	199	0	10	13	1	346	13	2	599
Total	81	745	1	28	51	1	1262	60	4	2233
BREAK										
12:00	25	265	0	28	47	0	371	25	1	762
12:15	46	202	0	21	49	0	374	18	0	710
12:30	52	227	0	7	47	0	397	14	0	744
12:45	39	234	0	13	30	0	386	26	1	729
Total	162	928	0	69	173	0	1528	83	2	2945
13:00	43	248	0	16	38	0	345	25	0	715
13:15	43	248	0	9	27	0	357	18	0	702
13:30	33	202	0	12	25	0	409	18	3	702
13:45	28	226	0	13	22	0	351	17	0	657
Total	147	924	0	50	112	0	1462	78	3	2776
BREAK										
15:00	9	208	0	17	24	0	463	5	0	726
15:15	5	200	0	16	31	0	425	6	0	683
15:30	15	246	0	23	52	0	403	3	1	743
15:45	4	200	0	18	48	0	446	3	1	720
Total	33	854	0	74	155	0	1737	17	2	2872
16:00	15	222	0	38	91	0	532	9	0	907
16:15	10	215	0	27	71	0	477	3	0	803
16:30	12	217	0	55	122	0	596	3	1	1006
16:45	15	245	1	29	81	1	521	2	0	895
Total	52	899	1	149	365	1	2126	17	1	3611
17:00	10	246	0	49	124	0	538	3	0	970
17:15	12	248	0	23	60	0	562	3	0	908
17:30	11	218	0	20	51	0	514	1	0	815
17:45	7	210	0	18	45	0	420	6	0	706
Total	40	922	0	110	280	0	2034	13	0	3399
Grand Total	1131	7409	2	513	1204	2	13389	569	15	24234
Apprch %	13.2	86.7	0	29.8	70	0.1	95.8	4.1	0.1	
Total %	4.7	30.6	0	2.1	5	0	55.2	2.3	0.1	
Automobiles	1125	7331	2	509	1199	2	13178	565	15	23926
% Automobiles	99.5	98.9	100	99.2	99.6	100	98.4	99.3	100	98.7
Trucks	6	78	0	4	4	0	211	4	0	307
% Trucks	0.5	1.1	0	0.8	0.3	0	1.6	0.7	0	1.3
Buses	0	0	0	0	1	0	0	0	0	1
% Buses	0	0	0	0	0.1	0	0	0	0	0

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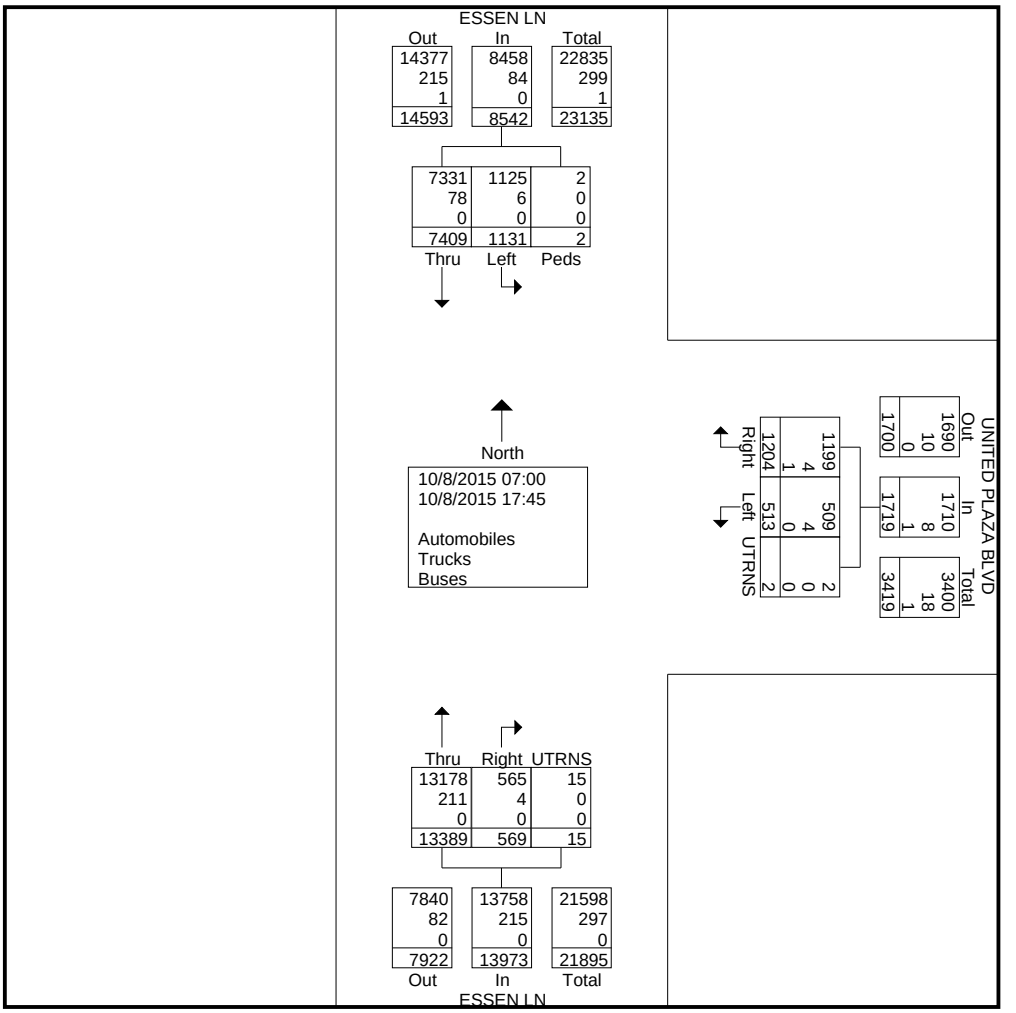

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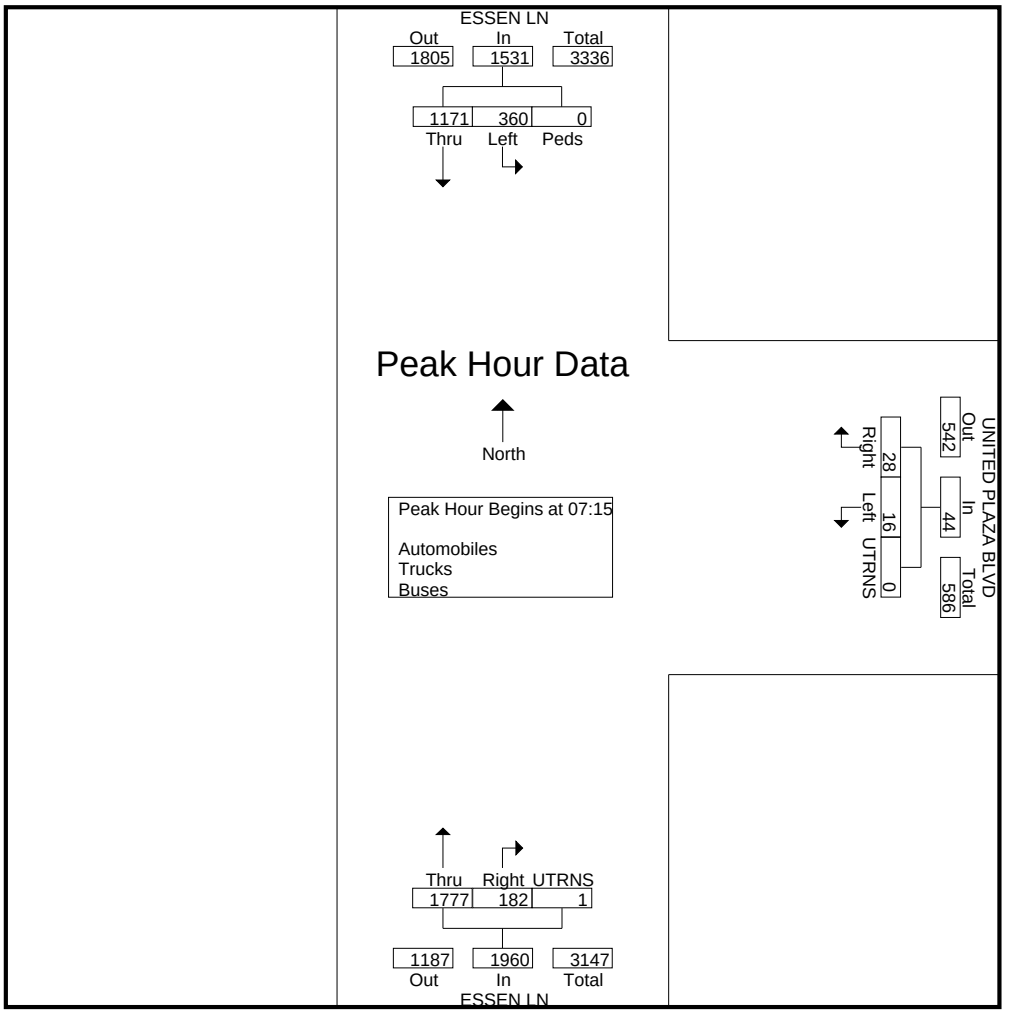
ESSEN LN @ UNITED PLAZA BLVD
BATON ROUGE, LOUISIANA

File Name : 15076-12 ESSEN LN @ UNITED PLAZA DRppd
Site Code : 15076-12
Start Date : 10/8/2015
Page No : 3

	ESSEN LN Southbound				UNITED PLAZA BLVD Westbound				ESSEN LN Northbound				
Start Time	Left	Thru	Peds	App. Total	Left	Right	UTRNS	App. Total	Thru	Right	UTRNS	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15													
07:15	80	**321**	0	**401**	5	3	0	8	402	43	0	445	854
07:30	92	305	0	397	1	7	0	8	436	37	0	473	878
07:45	**97**	279	0	376	**6**	**9**	0	**15**	469	**51**	0	520	**911**
08:00	91	266	0	357	4	9	0	13	**470**	51	**1**	**522**	892
Total Volume	360	1171	0	1531	16	28	0	44	1777	182	1	1960	3535
% App. Total	23.5	76.5	0		36.4	63.6	0		90.7	9.3	0.1		
PHF	.928	.912	.000	.954	.667	.778	.000	.733	.945	.892	.250	.939	.970



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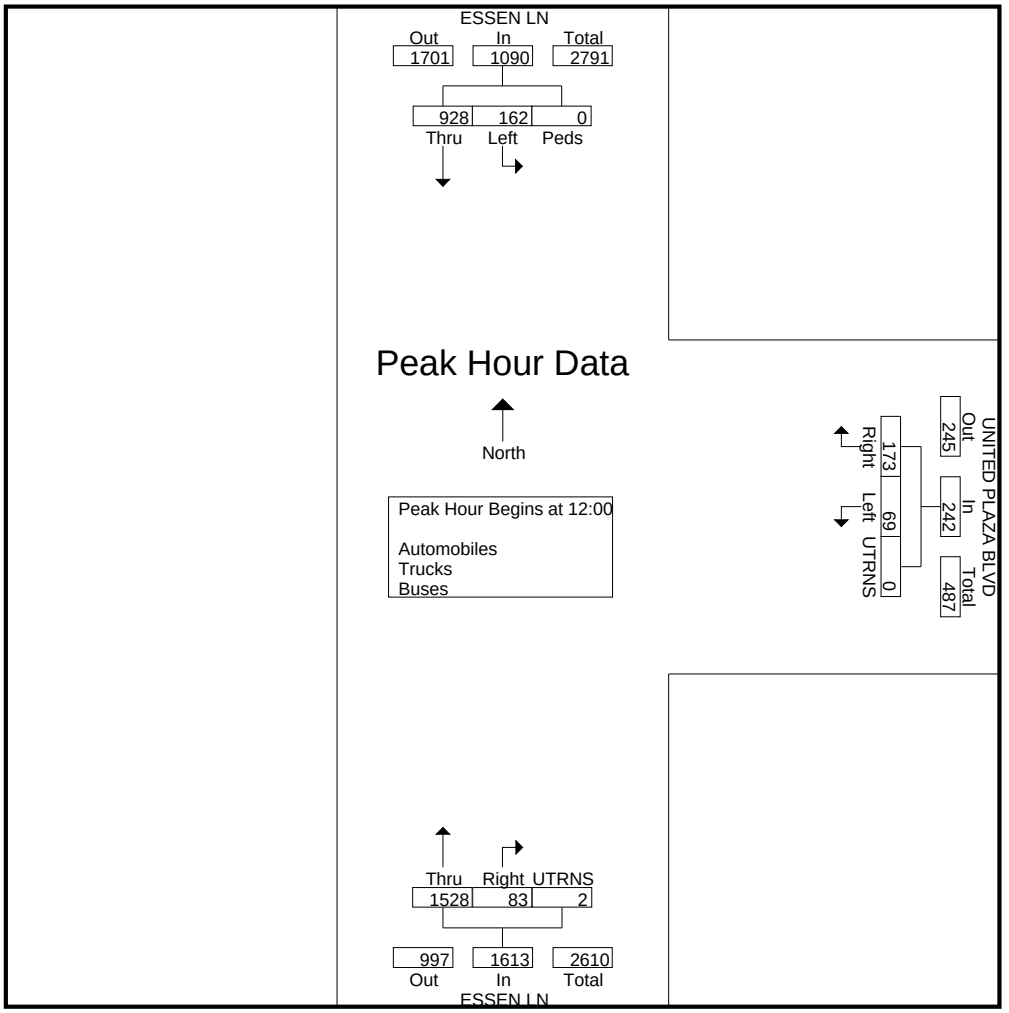
ESSEN LN @ UNITED PLAZA BLVD
BATON ROUGE, LOUISIANA

File Name : 15076-12 ESSEN LN @ UNITED PLAZA DRppd
Site Code : 15076-12
Start Date : 10/8/2015
Page No : 4

	ESSEN LN Southbound				UNITED PLAZA BLVD Westbound				ESSEN LN Northbound				
Start Time	Left	Thru	Peds	App. Total	Left	Right	UTRNS	App. Total	Thru	Right	UTRNS	App. Total	Int. Total
Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:00													
12:00	25	**265**	0	**290**	**28**	47	0	**75**	371	25	**1**	397	**762**
12:15	46	202	0	248	21	**49**	0	70	374	18	0	392	710
12:30	**52**	227	0	279	7	47	0	54	**397**	14	0	411	744
12:45	39	234	0	273	13	30	0	43	386	**26**	1	**413**	729
Total Volume	162	928	0	1090	69	173	0	242	1528	83	2	1613	2945
% App. Total	14.9	85.1	0		28.5	71.5	0		94.7	5.1	0.1		
PHF	.779	.875	.000	.940	.616	.883	.000	.807	.962	.798	.500	.976	.966



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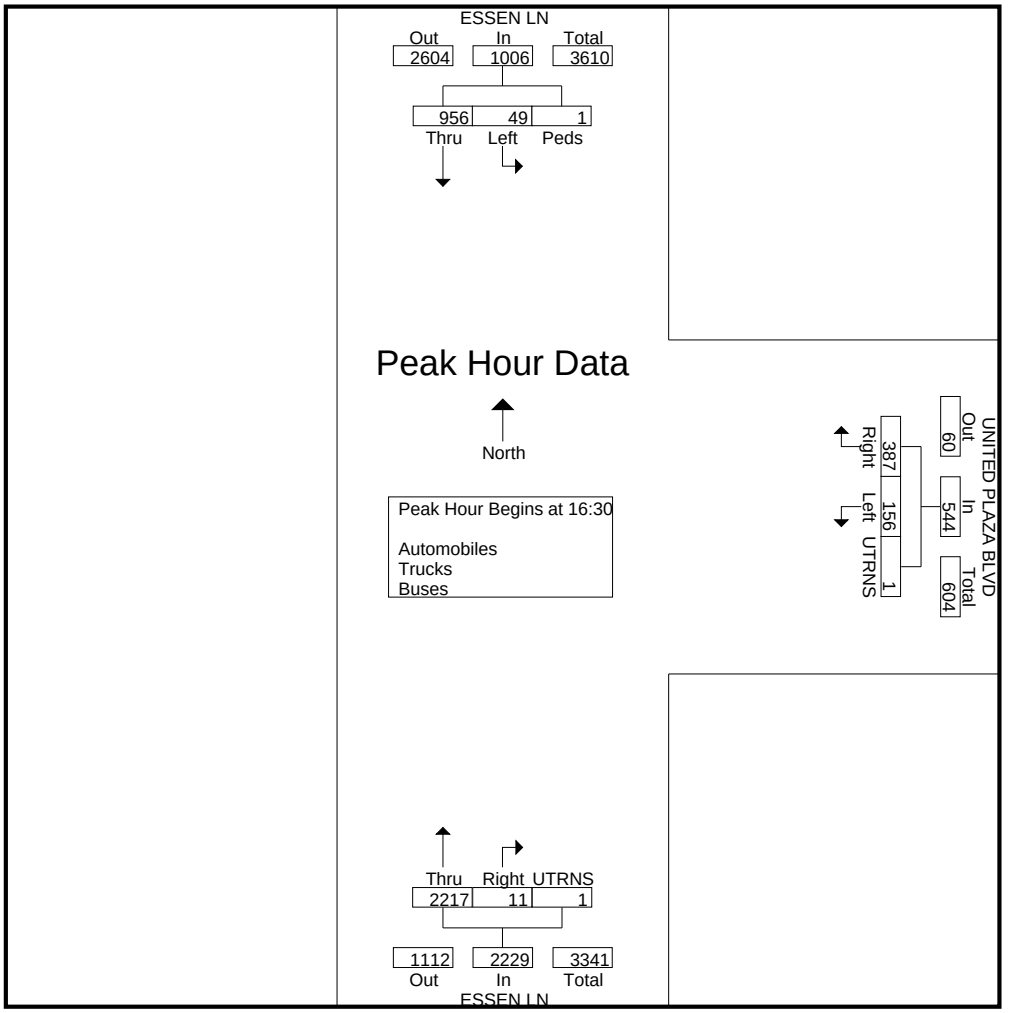
ESSEN LN @ UNITED PLAZA BLVD
BATON ROUGE, LOUISIANA

File Name : 15076-12 ESSEN LN @ UNITED PLAZA DRppd
Site Code : 15076-12
Start Date : 10/8/2015

	ESSEN LN Southbound				UNITED PLAZA BLVD Westbound				ESSEN LN Northbound				
Start Time	Left	Thru	Peds	App. Total	Left	Right	UTRNS	App. Total	Thru	Right	UTRNS	App. Total	Int. Total
Peak Hour Analysis From 14:00 to 17:45 - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 16:30													
16:30	12	217	0	229	**55**	122	0	**177**	**596**	**3**	**1**	**600**	**1006**
16:45	**15**	245	**1**	**261**	29	81	**1**	111	521	2	0	523	895
17:00	10	246	0	256	49	**124**	0	173	538	3	0	541	970
17:15	12	**248**	0	260	23	60	0	83	562	3	0	565	908
Total Volume	49	956	1	1006	156	387	1	544	2217	11	1	2229	3779
% App. Total	4.9	95	0.1		28.7	71.1	0.2		99.5	0.5	0		
PHF	.817	.964	.250	.964	.709	.780	.250	.768	.930	.917	.250	.929	.939



File Name: G:\DATA\2015\Private\15076\15076-12 ESSEN LN @ UNITED PLAZA DRppd.ppd
Start Date: 10/8/2015
Start Time: 7:00:00 AM
Site Code: 15076-12
Comment 1: ESSEN LN @ UNITED PLAZA BLVD
Comment 2: BATON ROUGE, LOUISIANA
Comment 3:
Comment 4:

HGV % by Movement

	ESSEN LN			UNITED PLAZA BLVD			ESSEN LN		
Start Time	Left	Thru	Peds	Left	Right	UTRNS	Thru	Right	UTRNS
07:00	1%	2%		0%	0%	#DIV/0!	2%	0%	#DIV/0!
07:15	0%	2%		0%	0%	#DIV/0!	1%	0%	#DIV/0!
07:30	0%	0%		0%	0%	#DIV/0!	1%	0%	#DIV/0!
07:45	0%	1%		0%	0%	#DIV/0!	1%	0%	#DIV/0!
08:00	0%	2%		25%	11%	#DIV/0!	1%	0%	0%
08:15	2%	0%		0%	0%	#DIV/0!	3%	0%	0%
08:30	0%	3%		0%	0%	#DIV/0!	2%	0%	#DIV/0!
08:45	0%	1%		0%	0%	#DIV/0!	2%	0%	0%
09:00	0%	2%		0%	0%	#DIV/0!	4%	0%	#DIV/0!
09:15	0%	3%		0%	0%	#DIV/0!	3%	6%	0%
09:30	4%	2%		13%	0%	#DIV/0!	3%	0%	0%
09:45	0%	1%		0%	8%	0%	3%	0%	0%
10:00									
10:15									
10:30									
10:45									
11:00									
11:15									
11:30									
11:45									
12:00	0%	2%		0%	0%	#DIV/0!	2%	0%	0%
12:15	2%	0%		0%	0%	#DIV/0!	1%	0%	#DIV/0!
12:30	2%	1%		14%	0%	#DIV/0!	2%	0%	#DIV/0!
12:45	0%	1%		8%	0%	#DIV/0!	3%	4%	0%
13:00	0%	1%		0%	3%	#DIV/0!	2%	0%	#DIV/0!
13:15	0%	0%		0%	0%	#DIV/0!	2%	0%	#DIV/0!
13:30	0%	0%		0%	4%	#DIV/0!	2%	0%	0%
13:45	0%	3%		0%	0%	#DIV/0!	3%	6%	#DIV/0!
14:00									
14:15									
14:30									
14:45									
15:00	0%	1%		0%	0%	#DIV/0!	1%	0%	#DIV/0!
15:15	0%	2%		0%	0%	#DIV/0!	2%	17%	#DIV/0!
15:30	0%	0%		0%	0%	#DIV/0!	0%	0%	0%
15:45	0%	1%		0%	0%	#DIV/0!	1%	0%	0%
16:00	0%	0%		0%	0%	#DIV/0!	1%	0%	#DIV/0!
16:15	0%	0%		0%	0%	#DIV/0!	1%	0%	#DIV/0!
16:30	0%	0%		0%	0%	#DIV/0!	2%	0%	0%
16:45	0%	0%		0%	0%	0%	1%	0%	#DIV/0!
17:00	10%	0%		0%	1%	#DIV/0!	1%	0%	#DIV/0!
17:15	0%	0%		0%	0%	#DIV/0!	1%	0%	#DIV/0!
17:30	0%	0%		0%	0%	#DIV/0!	0%	0%	#DIV/0!
17:45	0%	2%		0%	0%	#DIV/0!	0%	0%	#DIV/0!

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ESSEN LN @ UNITED PLAZA BLVD
BATON ROUGE, LOUISIANA

File Name : 15076-12 SAT ESSEN LN @ UNITED PLAZA DR
Site Code : 15076-12
Start Date : 10/10/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	ESSEN LN Southbound			UNITED PLAZA BLVD Westbound			ESSEN LN Northbound			
Start Time	Left	Thru	UTRN	Left	Right	Peds	Thru	Right	Peds	Int. Total
12:30	2	187	3	0	12	0	301	6	0	511
12:45	5	181	3	4	10	0	323	5	0	531
Total	7	368	6	4	22	0	624	11	0	1042
13:00	7	186	2	3	9	0	312	6	0	525
13:15	3	210	2	0	6	0	274	1	0	496
13:30	3	177	1	4	3	0	313	2	0	503
13:45	3	149	3	2	14	0	286	2	0	459
Total	16	722	8	9	32	0	1185	11	0	1983
14:00	3	224	1	4	6	0	291	1	0	530
14:15	2	160	2	5	1	0	304	4	0	478
Grand Total	28	1474	17	22	61	0	2404	27	0	4033
Apprch %	1.8	97	1.1	26.5	73.5	0	98.9	1.1	0	
Total %	0.7	36.5	0.4	0.5	1.5	0	59.6	0.7	0	
Automobiles	28	1463	17	21	61	0	2381	27	0	3998
% Automobiles	100	99.3	100	95.5	100	0	99	100	0	99.1
Trucks	0	11	0	1	0	0	23	0	0	35
% Trucks	0	0.7	0	4.5	0	0	1	0	0	0.9
Buses	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0

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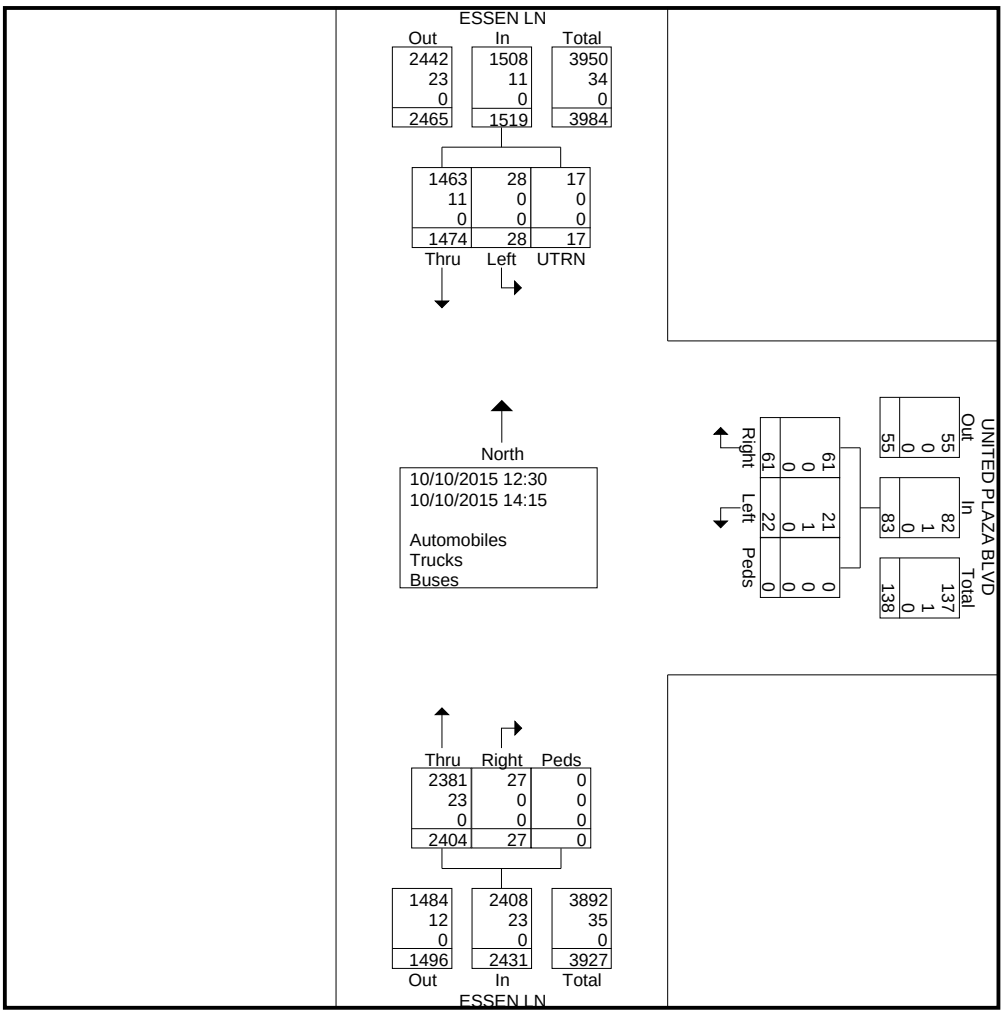
ESSEN LN @ UNITED PLAZA BLVD
BATON ROUGE, LOUISIANA

File Name : 15076-12 SAT ESSEN LN @ UNITED PLAZA DR
Site Code : 15076-12
Start Date : 10/10/2015
Page No : 2



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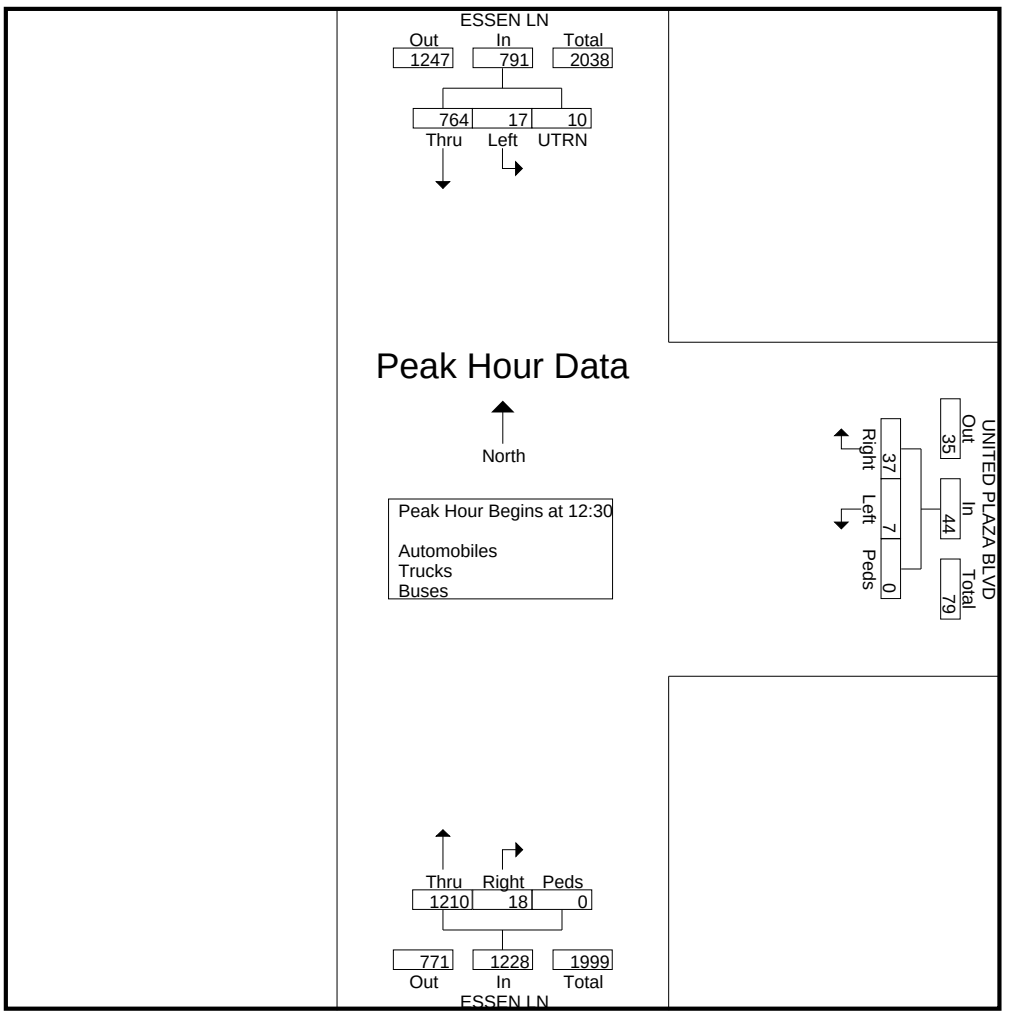
ESSEN LN @ UNITED PLAZA BLVD
BATON ROUGE, LOUISIANA

File Name : 15076-12 SAT ESSEN LN @ UNITED PLAZA DR
Site Code : 15076-12
Start Date : 10/10/2015

	ESSEN LN Southbound				UNITED PLAZA BLVD Westbound				ESSEN LN Northbound				
Start Time	Left	Thru	UTRN	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:30 to 14:15 - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:30													
12:30	2	187	**3**	192	0	**12**	0	12	301	**6**	0	307	511
12:45	5	181	3	189	**4**	10	0	**14**	**323**	5	0	**328**	**531**
13:00	**7**	186	2	195	3	9	0	12	312	6	0	318	525
13:15	3	**210**	2	**215**	0	6	0	6	274	1	0	275	496
Total Volume	17	764	10	791	7	37	0	44	1210	18	0	1228	2063
% App. Total	2.1	96.6	1.3		15.9	84.1	0		98.5	1.5	0		
PHF	.607	.910	.833	.920	.438	.771	.000	.786	.937	.750	.000	.936	.971



File Name: G:\DATA\2015\Private\15076\TMC'S Saturday\15076-12 SAT ESSEN LN @ UNITED PLAZA DR.ppd
Start Date: 10/10/2015
Start Time: 12:30:00 PM
Site Code: 15076-12
Comment 1: ESSEN LN @ UNITED PLAZA BLVD
Comment 2: BATON ROUGE, LOUISIANA
Comment 3:
Comment 4:

HGV % by Movement

	ESSEN LN			UNITED PLAZA BLVD			ESSEN LN		
Start Time	Left	Thru	UTRN	Left	Right	Peds	Thru	Right	Peds
12:30	0%	0%	0%	#DIV/0!	0%		0%	0%	
12:45	0%	1%	0%	0%	0%		1%	0%	
13:00	0%	1%	0%	0%	0%		1%	0%	
13:15	0%	0%	0%	#DIV/0!	0%		2%	0%	
13:30	0%	1%	0%	25%	0%		1%	0%	
13:45	0%	1%	0%	0%	0%		1%	0%	
14:00	0%	1%	0%	0%	0%		1%	0%	
14:15	0%	1%	0%	0%	0%		1%	0%	

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ESSEN LN @ ARCHIVES AVE
BATON ROUGE, LOUISIANA

File Name : 15076-13 ESSEN LN @ ARCHIVES LN
Site Code : 15076-13
Start Date : 10/8/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	ESSEN LN Southbound				ARCHIVES AVE Westbound				ESSEN LN Northbound				SCHOLAR DR Eastbound				
Start Time	Left	Thru	Right	UTRNS	Left	Thru	Right	Peds	Left	Thru	Right	UTRNS	Left	Thru	Right	Peds	Int. Total
07:00	65	327	5	0	1	0	8	0	2	333	25	0	5	0	12	0	783
07:15	72	405	2	0	5	0	4	0	4	372	22	1	8	0	6	0	901
07:30	97	403	5	0	6	0	4	0	3	206	21	2	10	0	4	0	761
07:45	107	393	7	0	4	0	14	0	4	410	48	1	12	0	4	0	1004
Total	341	1528	19	0	16	0	30	0	13	1321	116	4	35	0	26	0	3449
08:00	73	362	6	0	4	0	9	0	5	446	22	1	2	2	6	0	938
08:15	60	302	14	0	8	0	5	0	3	405	19	1	5	1	5	0	828
08:30	37	319	10	1	4	0	7	0	6	346	18	3	5	0	6	0	762
08:45	33	280	4	0	5	0	7	0	3	333	19	2	9	0	4	0	699
Total	203	1263	34	1	21	0	28	0	17	1530	78	7	21	3	21	0	3227
09:00	21	204	8	0	6	1	17	1	1	299	9	0	4	2	6	0	579
09:15	6	204	7	0	6	0	15	0	2	313	10	0	6	0	2	0	571
09:30	14	195	6	0	5	0	17	0	7	319	12	0	5	1	6	0	587
09:45	29	220	2	1	1	0	16	0	2	343	14	2	13	0	2	0	645
Total	70	823	23	1	18	1	65	1	12	1274	45	2	28	3	16	0	2382
BREAK																	
12:00	32	257	9	0	28	2	49	0	3	403	14	0	7	0	11	0	815
12:15	45	256	8	1	12	0	40	0	2	400	18	0	5	0	2	0	789
12:30	43	281	10	0	11	1	31	0	3	410	19	1	12	0	9	0	831
12:45	45	289	12	0	10	0	27	0	1	405	10	1	15	1	0	0	816
Total	165	1083	39	1	61	3	147	0	9	1618	61	2	39	1	22	0	3251
13:00	44	292	9	0	8	0	30	0	6	358	13	1	7	1	13	1	783
13:15	37	291	12	0	8	2	17	0	3	369	16	0	12	1	5	0	773
13:30	31	234	16	0	10	3	23	0	5	410	11	0	9	1	6	0	759
13:45	14	256	8	0	7	0	21	0	4	351	7	0	15	0	6	0	689
Total	126	1073	45	0	33	5	91	0	18	1488	47	1	43	3	30	1	3004
BREAK																	
15:00	13	213	8	0	10	1	23	0	11	448	5	1	9	0	6	0	748
15:15	10	208	18	0	16	0	40	0	7	432	8	0	15	2	0	0	756
15:30	16	245	8	0	12	0	54	0	4	448	2	0	21	0	3	0	813
15:45	10	203	9	1	8	0	30	0	4	478	4	0	8	0	6	0	761
Total	49	869	43	1	46	1	147	0	26	1806	19	1	53	2	15	0	3078
16:00	13	238	7	2	12	0	75	0	3	602	5	1	11	0	4	0	973
16:15	8	217	9	0	12	0	61	0	7	512	2	2	21	0	1	0	852
16:30	7	230	6	0	19	0	113	0	4	644	4	0	20	0	1	0	1048
16:45	8	251	7	0	12	0	75	0	4	619	3	0	12	0	5	0	996
Total	36	936	29	2	55	0	324	0	18	2377	14	3	64	0	11	0	3869
17:00	10	246	13	0	20	1	109	0	4	606	5	0	8	0	6	0	1028
17:15	9	250	13	0	12	0	67	0	3	585	2	1	12	0	7	0	961
17:30	4	228	6	0	6	2	34	0	5	550	8	0	13	0	3	0	859
17:45	13	222	11	1	2	0	33	0	2	462	15	2	9	0	4	0	776
Total	36	946	43	1	40	3	243	0	14	2203	30	3	42	0	20	0	3624
Grand Total	1026	8521	275	7	290	13	1075	1	127	13617	410	23	325	12	161	1	25884
Apprch %	10.4	86.7	2.8	0.1	21	0.9	78	0.1	0.9	96	2.9	0.2	65.1	2.4	32.3	0.2	
Total %	4	32.9	1.1	0	1.1	0.1	4.2	0	0.5	52.6	1.6	0.1	1.3	0	0.6	0	
Automobiles	1019	8385	269	7	287	12	1065	1	125	13312	406	23	321	11	158	1	25402
% Automobiles	99.3	98.4	97.8	100	99	92.3	99.1	100	98.4	97.8	99	100	98.8	91.7	98.1	100	98.1
Trucks	7	96	4	0	3	1	10	0	1	250	4	0	2	1	1	0	380
% Trucks	0.7	1.1	1.5	0	1	7.7	0.9	0	0.8	1.8	1	0	0.6	8.3	0.6	0	1.5
Buses	0	40	2	0	0	0	0	0	1	55	0	0	2	0	2	0	102
% Buses	0	0.5	0.7	0	0	0	0	0	0.8	0.4	0	0	0.6	0	1.2	0	0.4

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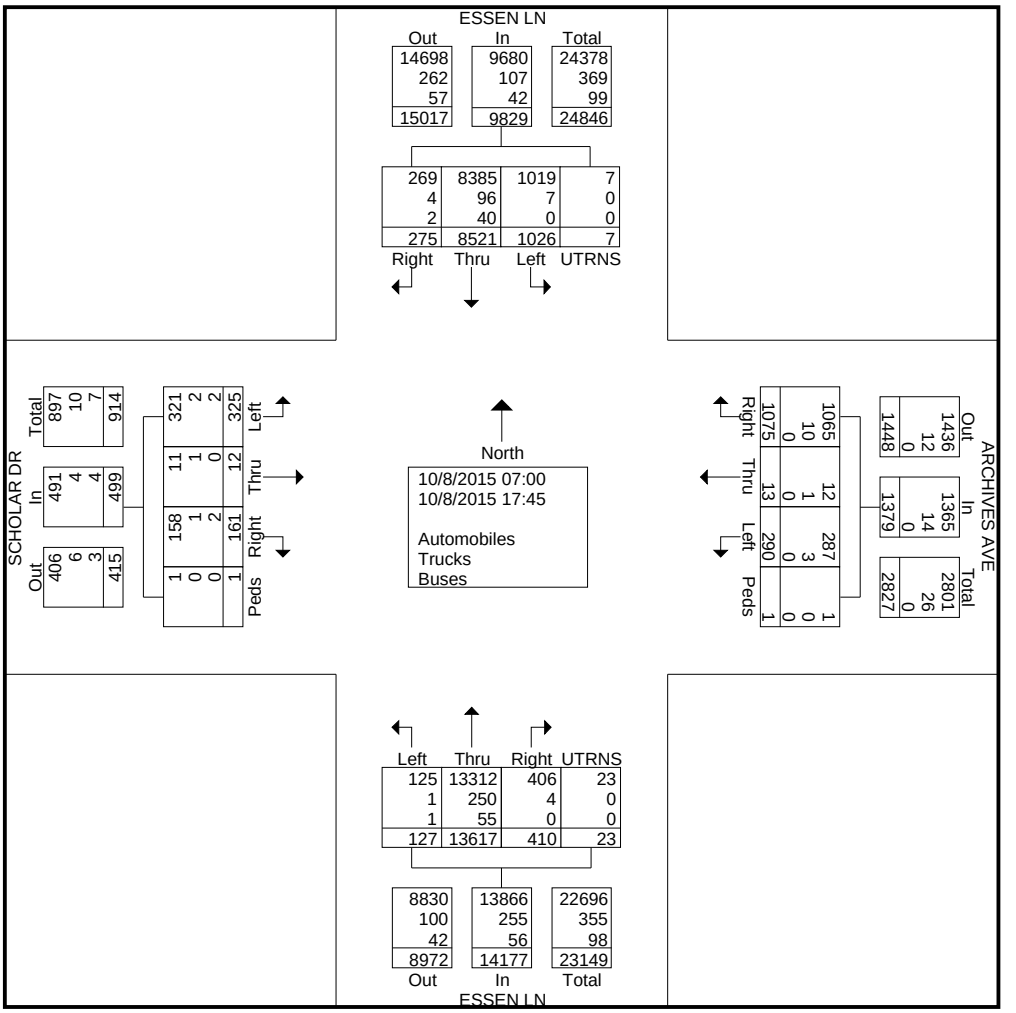

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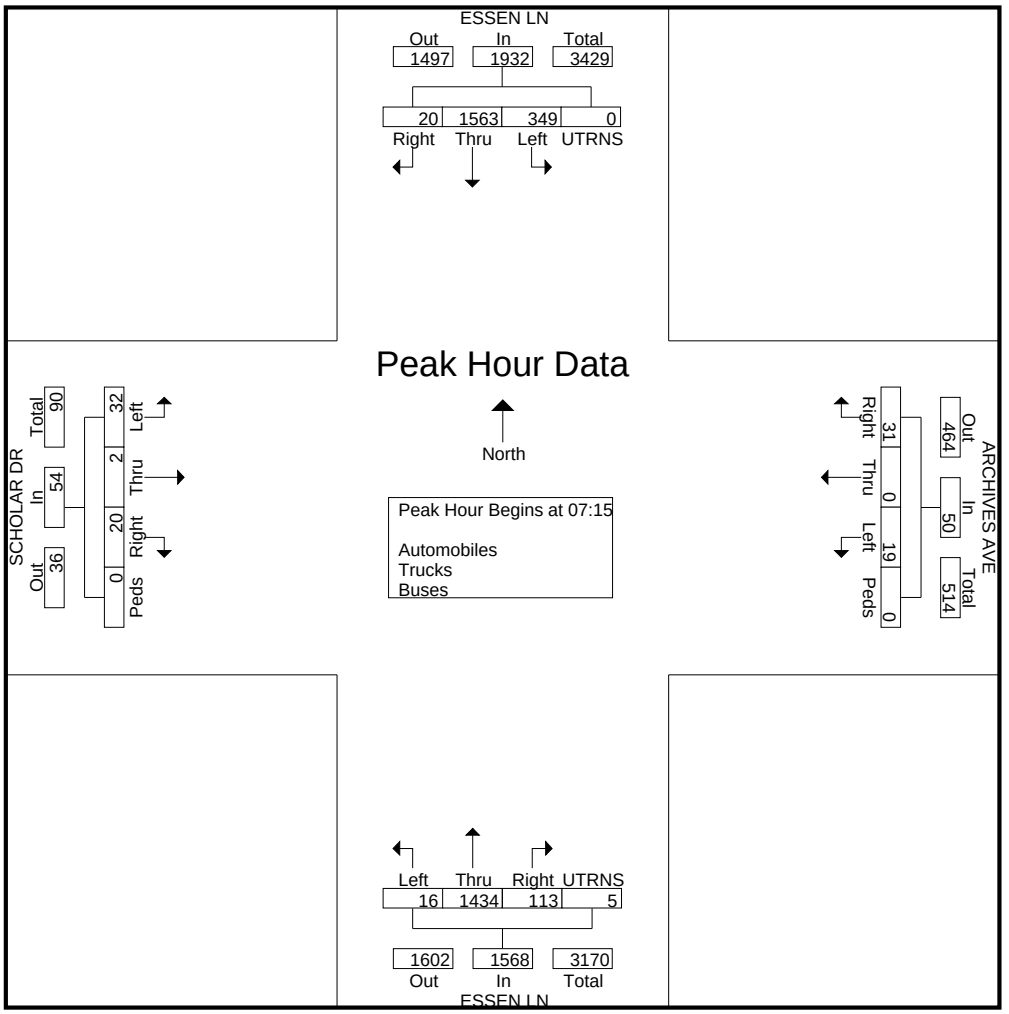
ESSEN LN @ ARCHIVES AVE
BATON ROUGE, LOUISIANA

File Name : 15076-13 ESSEN LN @ ARCHIVES LN
Site Code : 15076-13
Start Date : 10/8/2015
Page No : 3

	ESSEN LN Southbound					ARCHIVES AVE Westbound					ESSEN LN Northbound					SCHOLAR DR Eastbound					
Start Time	Left	Thru	Right	UTRNS	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	UTRNS	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15																					
07:15	72	**405**	2	0	479	5	0	4	0	9	4	372	22	1	399	8	0	**6**	0	14	901
07:30	97	403	5	0	505	**6**	0	4	0	10	3	206	21	**2**	232	10	0	4	0	14	761
07:45	**107**	393	**7**	0	**507**	4	0	**14**	0	**18**	4	410	**48**	1	463	**12**	0	4	0	**16**	**1004**
08:00	73	362	6	0	441	4	0	9	0	13	**5**	**446**	22	1	**474**	2	**2**	6	0	10	938
Total Volume	349	1563	20	0	1932	19	0	31	0	50	16	1434	113	5	1568	32	2	20	0	54	3604
% App. Total	18.1	80.9	1	0		38	0	62	0		1	91.5	7.2	0.3		59.3	3.7	37	0		
PHF	.815	.965	.714	.000	.953	.792	.000	.554	.000	.694	.800	.804	.589	.625	.827	.667	.250	.833	.000	.844	.897



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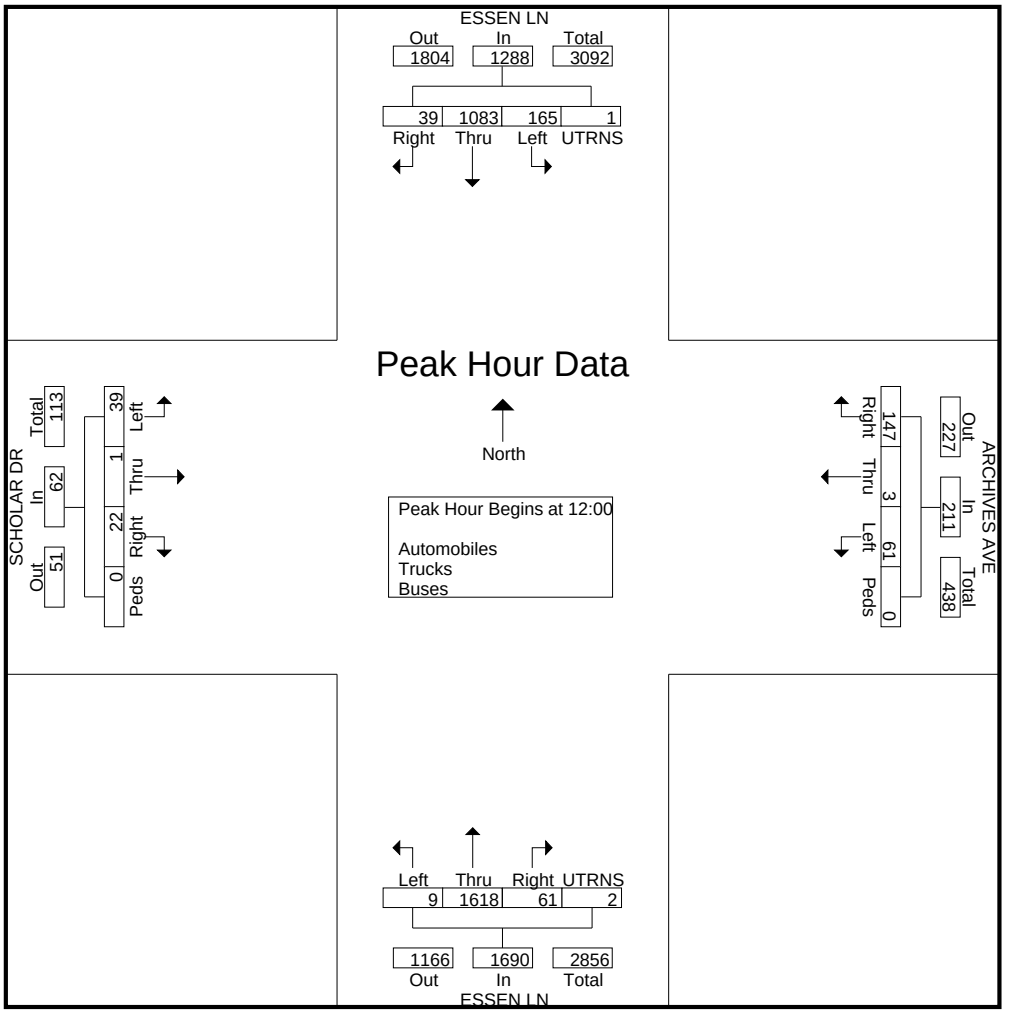
ESSEN LN @ ARCHIVES AVE
BATON ROUGE, LOUISIANA

File Name : 15076-13 ESSEN LN @ ARCHIVES LN
Site Code : 15076-13
Start Date : 10/8/2015
Page No : 4

	ESSEN LN Southbound					ARCHIVES AVE Westbound					ESSEN LN Northbound					SCHOLAR DR Eastbound					
Start Time	Left	Thru	Right	UTRNS	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	UTRNS	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00																					
12:00	32	257	9	0	298	**28**	**2**	**49**	0	**79**	**3**	403	14	0	420	7	0	**11**	0	18	815
12:15	**45**	256	8	**1**	310	12	0	40	0	52	2	400	18	0	420	5	0	2	0	7	789
12:30	43	281	10	0	334	11	1	31	0	43	3	**410**	**19**	**1**	**433**	12	0	9	0	**21**	**831**
12:45	45	**289**	**12**	0	**346**	10	0	27	0	37	1	405	10	1	417	**15**	**1**	0	0	16	816
Total Volume	165	1083	39	1	1288	61	3	147	0	211	9	1618	61	2	1690	39	1	22	0	62	3251
% App. Total	12.8	84.1	3	0.1		28.9	1.4	69.7	0		0.5	95.7	3.6	0.1		62.9	1.6	35.5	0		
PHF	.917	.937	.813	.250	.931	.545	.375	.750	.000	.668	.750	.987	.803	.500	.976	.650	.250	.500	.000	.738	.978



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Gulf Breeze, FL 32563
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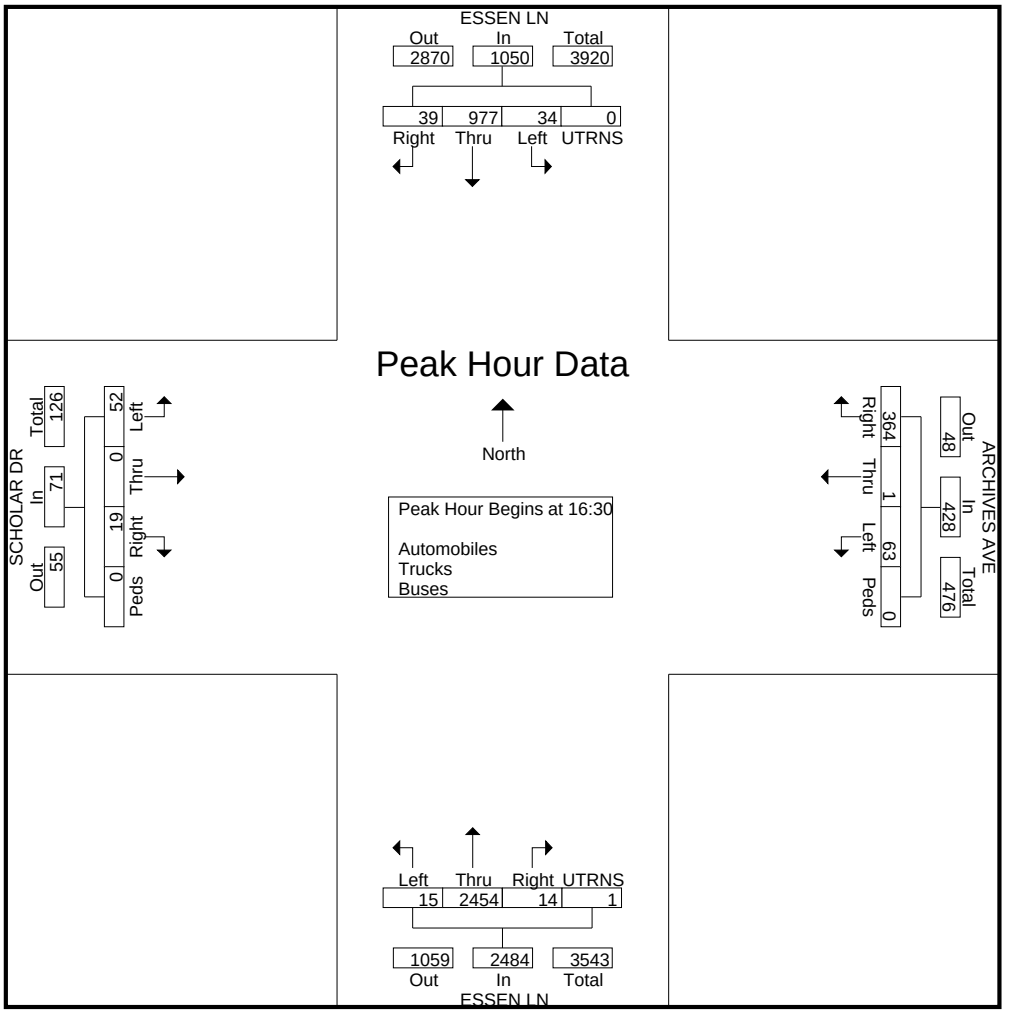
ESSEN LN @ ARCHIVES AVE
BATON ROUGE, LOUISIANA

File Name : 15076-13 ESSEN LN @ ARCHIVES LN
Site Code : 15076-13
Start Date : 10/8/2015

	ESSEN LN Southbound					ARCHIVES AVE Westbound					ESSEN LN Northbound					SCHOLAR DR Eastbound					
Start Time	Left	Thru	Right	UTRNS	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	UTRNS	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 14:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	7	230	6	0	243	19	0	**113**	0	**132**	**4**	**644**	4	0	**652**	**20**	0	1	0	**21**	**1048**
16:45	8	**251**	7	0	266	12	0	75	0	87	4	619	3	0	626	12	0	5	0	17	996
17:00	**10**	246	**13**	0	269	**20**	**1**	109	0	130	4	606	**5**	0	615	8	0	6	0	14	1028
17:15	9	250	13	0	**272**	12	0	67	0	79	3	585	2	**1**	591	12	0	**7**	0	19	961
Total Volume	34	977	39	0	1050	63	1	364	0	428	15	2454	14	1	2484	52	0	19	0	71	4033
% App. Total	3.2	93	3.7	0		14.7	0.2	85	0		0.6	98.8	0.6	0		73.2	0	26.8	0		
PHF	.850	.973	.750	.000	.965	.788	.250	.805	.000	.811	.938	.953	.700	.250	.952	.650	.000	.679	.000	.845	.962



File Name: G:\DATA\2015\Private\15076\TMC's Thursday\15076-13 ESSEN LN @ ARCHIVES LN.ppd
Start Date: 10/8/2015
Start Time: 7:00:00 AM
Site Code: 15076-13
Comment 1: ESSEN LN @ ARCHIVES AVE
Comment 2: BATON ROUGE, LOUISIANA
Comment 3:
Comment 4:

HGV % by Movement

	ESSEN LN				ARCHIVES AVE				ESSEN LN				SCHOLAR DR			
Start Time	Left	Thru	Right	UTRNS	Left	Thru	Right	Peds	Left	Thru	Right	UTRNS	Left	Thru	Right	Peds
07:00	0%	6%	0%	#DIV/0!	100%	#DIV/0!	0%		0%	5%	0%	#DIV/0!	0%	#DIV/0!	8%	
07:15	0%	2%	0%	#DIV/0!	20%	#DIV/0!	0%		0%	1%	0%	0%	0%	#DIV/0!	0%	
07:30	0%	0%	0%	#DIV/0!	0%	#DIV/0!	0%		33%	2%	5%	0%	0%	#DIV/0!	0%	
07:45	0%	1%	0%	#DIV/0!	0%	#DIV/0!	7%		0%	2%	0%	0%	8%	#DIV/0!	0%	
08:00	3%	1%	0%	#DIV/0!	0%	#DIV/0!	11%		0%	2%	0%	0%	0%	0%	0%	
08:15	0%	1%	14%	#DIV/0!	0%	#DIV/0!	0%		0%	4%	0%	0%	0%	0%	0%	
08:30	0%	3%	10%	0%	0%	#DIV/0!	0%		0%	4%	0%	0%	0%	#DIV/0!	0%	
08:45	0%	1%	0%	#DIV/0!	0%	#DIV/0!	0%		0%	2%	0%	0%	0%	#DIV/0!	0%	
09:00	0%	2%	0%	#DIV/0!	0%	0%	0%		0%	4%	0%	#DIV/0!	0%	0%	0%	
09:15	0%	3%	0%	#DIV/0!	0%	#DIV/0!	0%		0%	4%	0%	#DIV/0!	0%	#DIV/0!	0%	
09:30	0%	3%	0%	#DIV/0!	0%	#DIV/0!	0%		14%	5%	0%	#DIV/0!	0%	0%	17%	
09:45	3%	1%	0%	0%	0%	#DIV/0!	0%		0%	5%	0%	0%	0%	#DIV/0!	0%	
10:00																
10:15																
10:30																
10:45																
11:00																
11:15																
11:30																
11:45																
12:00	0%	1%	0%	#DIV/0!	0%	0%	0%		0%	2%	0%	#DIV/0!	0%	#DIV/0!	0%	
12:15	2%	3%	0%	0%	0%	#DIV/0!	3%		0%	1%	0%	#DIV/0!	0%	#DIV/0!	0%	
12:30	0%	1%	0%	#DIV/0!	0%	0%	0%		0%	2%	0%	0%	0%	#DIV/0!	0%	
12:45	2%	1%	0%	#DIV/0!	0%	#DIV/0!	0%		0%	3%	0%	0%	0%	100%	#DIV/0!	
13:00	0%	1%	0%	#DIV/0!	0%	#DIV/0!	7%		0%	3%	8%	0%	0%	0%	0%	
13:15	0%	1%	0%	#DIV/0!	0%	0%	0%		0%	2%	0%	#DIV/0!	0%	0%	0%	
13:30	3%	2%	0%	#DIV/0!	0%	33%	9%		0%	3%	9%	#DIV/0!	0%	0%	0%	
13:45	0%	1%	0%	#DIV/0!	0%	#DIV/0!	5%		0%	4%	0%	#DIV/0!	7%	#DIV/0!	0%	
14:00																
14:15																
14:30																
14:45																
15:00	0%	2%	0%	#DIV/0!	0%	0%	0%		0%	1%	0%	0%	0%	#DIV/0!	0%	
15:15	0%	3%	6%	#DIV/0!	0%	#DIV/0!	3%		0%	2%	0%	#DIV/0!	7%	0%	#DIV/0!	
15:30	6%	2%	13%	#DIV/0!	0%	#DIV/0!	0%		0%	1%	0%	#DIV/0!	0%	#DIV/0!	33%	
15:45	0%	1%	0%	0%	0%	#DIV/0!	0%		0%	2%	0%	#DIV/0!	0%	#DIV/0!	0%	
16:00	0%	0%	14%	0%	0%	#DIV/0!	0%		0%	2%	0%	0%	9%	#DIV/0!	0%	
16:15	0%	0%	0%	#DIV/0!	0%	#DIV/0!	0%		0%	1%	0%	0%	0%	#DIV/0!	0%	
16:30	0%	0%	0%	#DIV/0!	0%	#DIV/0!	0%		0%	2%	0%	#DIV/0!	0%	#DIV/0!	0%	
16:45	0%	1%	0%	#DIV/0!	0%	#DIV/0!	1%		0%	1%	0%	#DIV/0!	0%	#DIV/0!	0%	
17:00	0%	0%	0%	#DIV/0!	0%	0%	0%		0%	1%	20%	#DIV/0!	0%	#DIV/0!	0%	
17:15	0%	0%	0%	#DIV/0!	8%	#DIV/0!	0%		0%	2%	0%	0%	0%	#DIV/0!	0%	
17:30	0%	1%	0%	#DIV/0!	0%	0%	0%		0%	1%	0%	#DIV/0!	0%	#DIV/0!	0%	
17:45	0%	2%	0%	0%	0%	#DIV/0!	0%		0%	2%	0%	0%	0%	#DIV/0!	0%	

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ESSEN LN @ ARCHIVES LN
BATON ROUGE, LOUISIANA

File Name : 15076-13 SAT ESSEN LN @ ARCHIVES LN
Site Code : 15076-13
Start Date : 10/10/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	ESSEN LN Southbound				ARCHIVES LN Westbound				ESSEN LN Northbound				SHOLAR DR Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
12:30	17	174	3	0	13	0	17	0	1	287	10	0	5	1	8	0	536
12:45	15	177	5	0	12	0	17	0	3	331	13	0	7	0	2	0	582
Total	32	351	8	0	25	0	34	0	4	618	23	0	12	1	10	0	1118
13:00	16	177	10	0	8	1	10	0	3	301	17	0	5	1	4	0	553
13:15	16	207	7	0	13	0	15	0	3	266	9	0	6	0	4	0	546
13:30	12	160	2	0	14	0	20	0	3	314	9	0	4	2	2	0	542
13:45	8	143	4	0	5	0	13	0	3	273	9	0	5	1	3	0	467
Total	52	687	23	0	40	1	58	0	12	1154	44	0	20	4	13	0	2108
14:00	8	220	1	1	15	0	19	0	0	294	6	0	4	0	2	0	570
14:15	7	165	5	0	8	0	17	0	3	300	5	2	2	1	1	0	516
Grand Total	99	1423	37	1	88	1	128	0	19	2366	78	2	38	6	26	0	4312
Apprch %	6.3	91.2	2.4	0.1	40.6	0.5	59	0	0.8	96	3.2	0.1	54.3	8.6	37.1	0	
Total %	2.3	33	0.9	0	2	0	3	0	0.4	54.9	1.8	0	0.9	0.1	0.6	0	
Automobiles	99	1411	37	1	88	1	127	0	19	2343	78	2	38	6	26	0	4276
% Automobiles	100	99.2	100	100	100	100	99.2	0	100	99	100	100	100	100	100	0	99.2
Trucks	0	10	0	0	0	0	1	0	0	23	0	0	0	0	0	0	34
% Trucks	0	0.7	0	0	0	0	0.8	0	0	1	0	0	0	0	0	0	0.8
Buses	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
% Buses	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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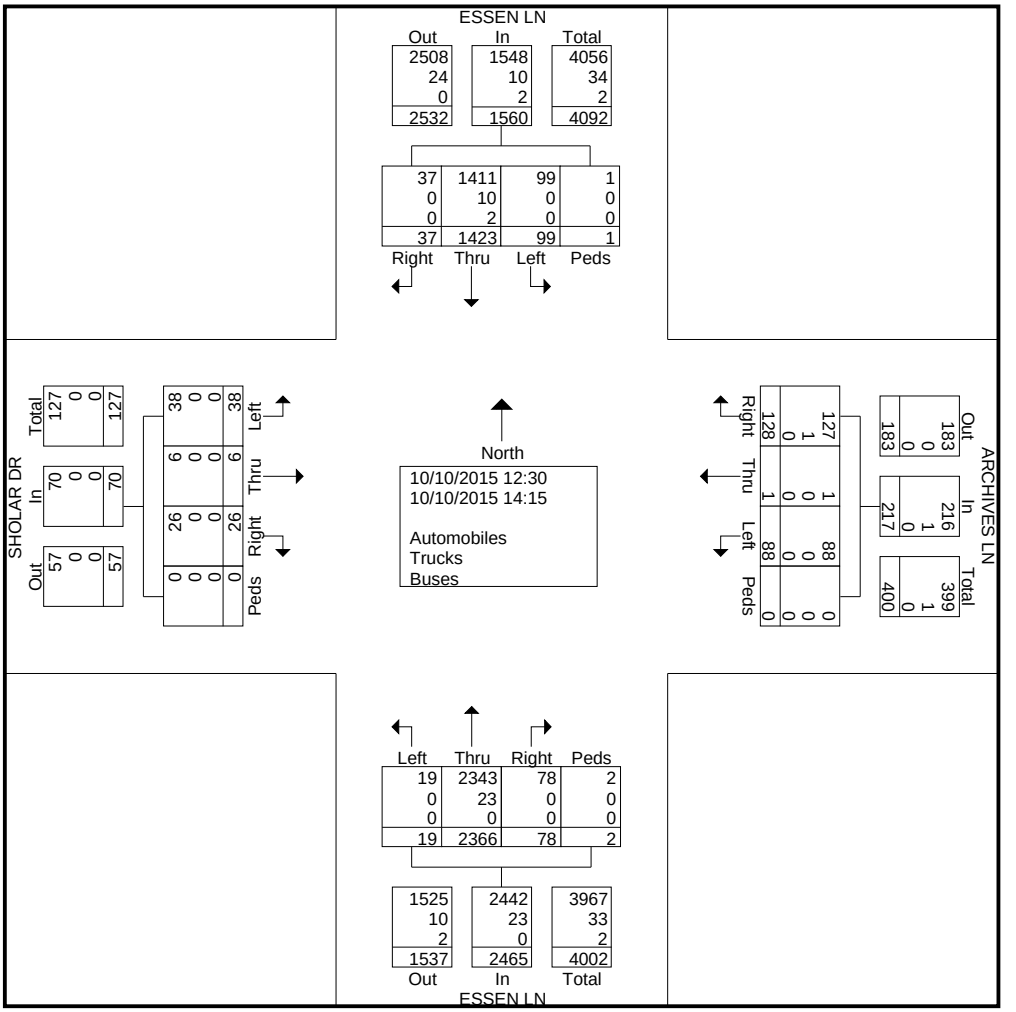
ESSEN LN @ ARCHIVES LN
BATON ROUGE, LOUISIANA

File Name : 15076-13 SAT ESSEN LN @ ARCHIVES LN
Site Code : 15076-13
Start Date : 10/10/2015



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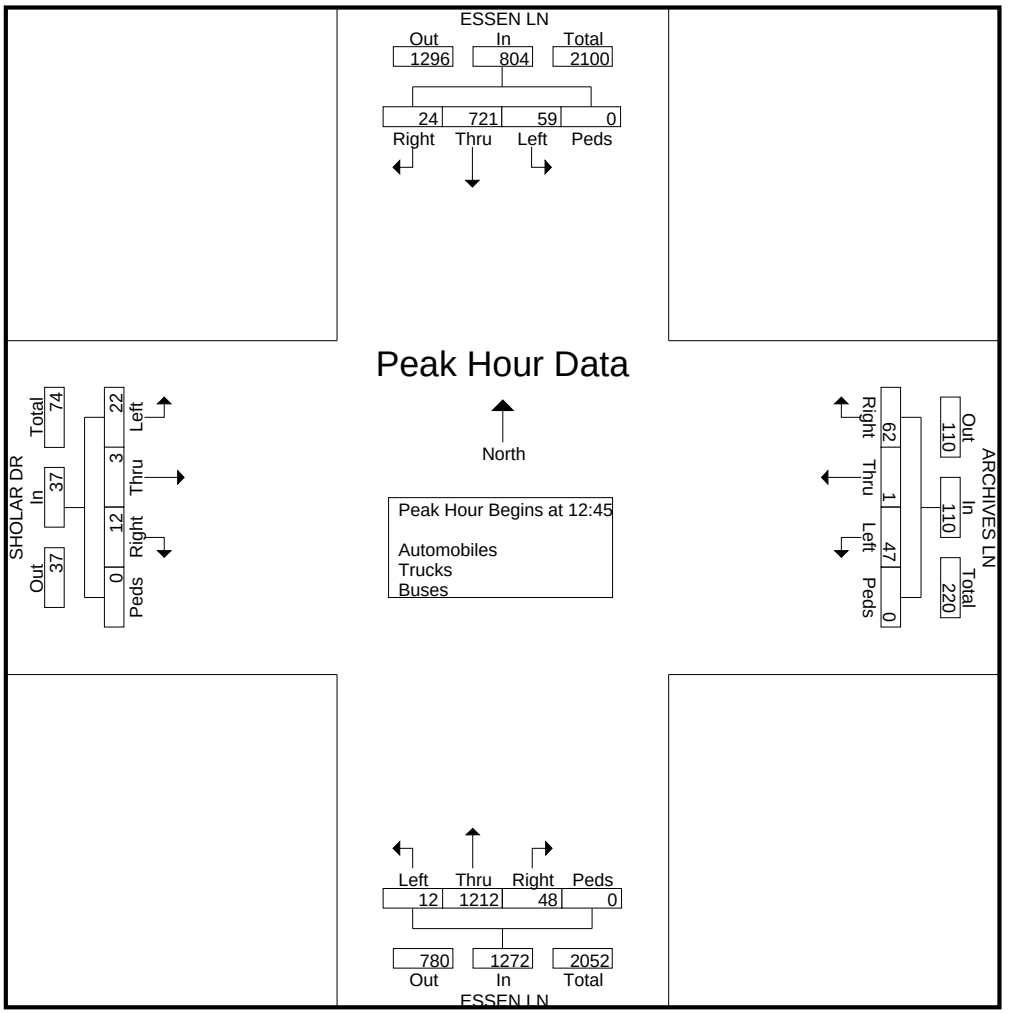
ESSEN LN @ ARCHIVES LN
BATON ROUGE, LOUISIANA

File Name : 15076-13 SAT ESSEN LN @ ARCHIVES LN
Site Code : 15076-13
Start Date : 10/10/2015
Page No : 3

	ESSEN LN Southbound					ARCHIVES LN Westbound					ESSEN LN Northbound					SHOLAR DR Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:30 to 14:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:45																					
12:45	15	177	5	0	197	12	0	17	0	29	**3**	**331**	13	0	**347**	**7**	0	2	0	9	**582**
13:00	**16**	177	**10**	0	203	8	**1**	10	0	19	3	301	**17**	0	321	5	1	**4**	0	**10**	553
13:15	16	**207**	7	0	**230**	13	0	15	0	28	3	266	9	0	278	6	0	4	0	10	546
13:30	12	160	2	0	174	**14**	0	**20**	0	**34**	3	314	9	0	326	4	**2**	2	0	8	542
Total Volume	59	721	24	0	804	47	1	62	0	110	12	1212	48	0	1272	22	3	12	0	37	2223
% App. Total	7.3	89.7	3	0		42.7	0.9	56.4	0		0.9	95.3	3.8	0		59.5	8.1	32.4	0		
PHF	.922	.871	.600	.000	.874	.839	.250	.775	.000	.809	1.00	.915	.706	.000	.916	.786	.375	.750	.000	.925	.955



File Name: G:\DATA\2015\Private\15076\TMC'S Saturday\15076-13 SAT ESSEN LN @ ARCHIVES LN.ppd
Start Date: 10/10/2015
Start Time: 12:30:00 PM
Site Code: 15076-13
Comment 1: ESSEN LN @ ARCHIVES LN
Comment 2: BATON ROUGE, LOUISIANA
Comment 3:
Comment 4:

HGV % by Movement

	ESSEN LN				ARCHIVES LN				ESSEN LN				SHOLAR DR			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
12:30	0%	1%	0%		0%	#DIV/0!	6%		0%	0%	0%		0%	0%	0%	
12:45	0%	1%	0%		0%	#DIV/0!	0%		0%	1%	0%		0%	#DIV/0!	0%	
13:00	0%	0%	0%		0%	0%	0%		0%	1%	0%		0%	0%	0%	
13:15	0%	0%	0%		0%	#DIV/0!	0%		0%	2%	0%		0%	#DIV/0!	0%	
13:30	0%	0%	0%		0%	#DIV/0!	0%		0%	1%	0%		0%	0%	0%	
13:45	0%	1%	0%		0%	#DIV/0!	0%		0%	1%	0%		0%	0%	0%	
14:00	0%	1%	0%		0%	#DIV/0!	0%		#DIV/0!	1%	0%		0%	#DIV/0!	0%	
14:15	0%	2%	0%		0%	#DIV/0!	0%		0%	1%	0%		0%	0%	0%	

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Essen Ln @ I-12 EB Off Ramp
Baton Rouge, LA

File Name : 15076-14 ESSEN LN @ I-12 EB RAMP
Site Code : 15076-14
Start Date : 10/8/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	Essen Ln Southbound			Essen Ln Northbound			I-12 EB Off Ramp Eastbound			
Start Time	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds	Int. Total
07:00	329	0	0	0	209	0	45	63	0	646
07:15	420	0	0	0	261	0	68	60	0	809
07:30	438	0	0	0	269	0	66	76	0	849
07:45	411	0	0	0	298	0	99	95	0	903
Total	1598	0	0	0	1037	0	278	294	0	3207
08:00	397	0	0	0	302	0	78	53	0	830
08:15	335	0	0	0	284	0	80	43	0	742
08:30	303	0	0	0	240	0	59	49	0	651
08:45	284	0	0	0	205	0	55	29	0	573
Total	1319	0	0	0	1031	0	272	174	0	2796
09:00	208	0	0	0	192	0	58	29	0	487
09:15	182	1	0	0	215	0	44	20	0	462
09:30	214	0	0	0	222	0	39	23	0	498
09:45	212	0	0	0	238	0	52	20	0	522
Total	816	1	0	0	867	0	193	92	0	1969
Break										
12:00	281	0	0	0	322	0	55	15	0	673
12:15	289	0	0	0	264	0	43	18	0	614
12:30	320	0	0	0	266	0	61	20	0	667
12:45	307	0	0	2	280	0	69	22	0	680
Total	1197	0	0	2	1132	0	228	75	0	2634
13:00	319	0	0	0	257	0	53	29	0	658
13:15	316	0	0	0	231	0	51	31	1	630
13:30	244	0	0	0	282	0	64	20	0	610
13:45	277	0	0	0	227	0	48	11	0	563
Total	1156	0	0	0	997	0	216	91	1	2461
Break										
15:00	230	0	0	0	262	0	39	12	0	543
15:15	228	0	0	0	266	0	51	10	0	555
15:30	252	0	0	0	275	0	44	12	0	583
15:45	211	0	0	0	238	0	44	11	0	504
Total	921	0	0	0	1041	0	178	45	0	2185
16:00	264	0	0	0	325	0	32	7	0	628
16:15	236	0	0	0	304	0	32	3	0	575
16:30	231	0	0	0	425	0	30	5	0	691
16:45	257	0	0	0	365	0	55	14	0	691
Total	988	0	0	0	1419	0	149	29	0	2585
17:00	258	0	0	0	378	0	51	10	0	697
17:15	255	0	0	0	396	0	55	13	0	719
17:30	238	0	0	0	324	0	77	7	0	646
17:45	233	0	0	0	310	0	92	13	0	648
Total	984	0	0	0	1408	0	275	43	0	2710
Grand Total	8979	1	0	2	8932	0	1789	843	1	20547
Apprch %	100	0	0	0	100	0	67.9	32	0	
Total %	43.7	0	0	0	43.5	0	8.7	4.1	0	
Automobiles	8860	1	0	0	8794	0	1773	838	1	20267
% Automobiles	98.7	100	0	0	98.5	0	99.1	99.4	100	98.6
Trucks	77	0	0	2	110	0	13	5	0	207
% Trucks	0.9	0	0	100	1.2	0	0.7	0.6	0	1

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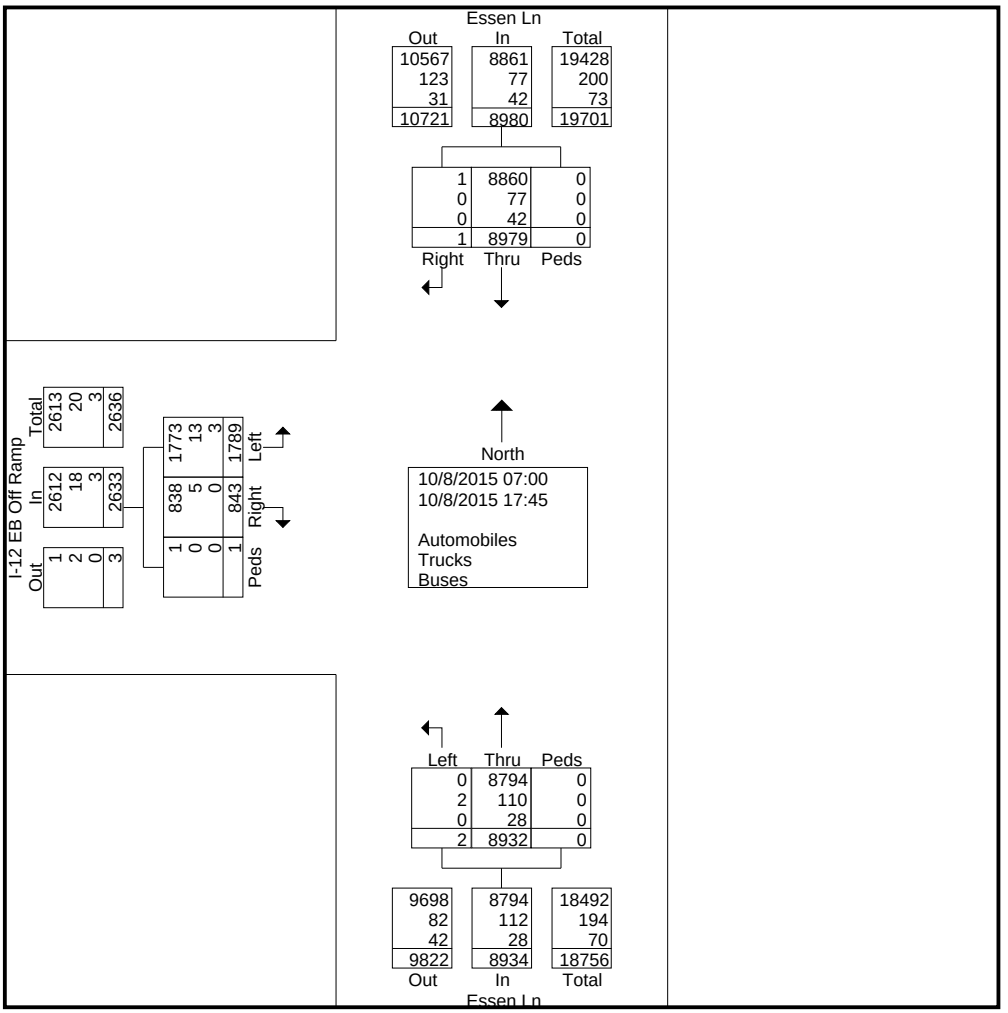
Essen Ln @ I-12 EB Off Ramp
Baton Rouge, LA

File Name : 15076-14 ESSEN LN @ I-12 EB RAMP
Site Code : 15076-14
Start Date : 10/8/2015
Page No : 2

Groups Printed- Automobiles - Trucks - Buses

	Essen Ln Southbound			Essen Ln Northbound			I-12 EB Off Ramp Eastbound			
	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds	Int. Total
Buses	42	0	0	0	28	0	3	0	0	73
% Buses	0.5	0	0	0	0.3	0	0.2	0	0	0.4



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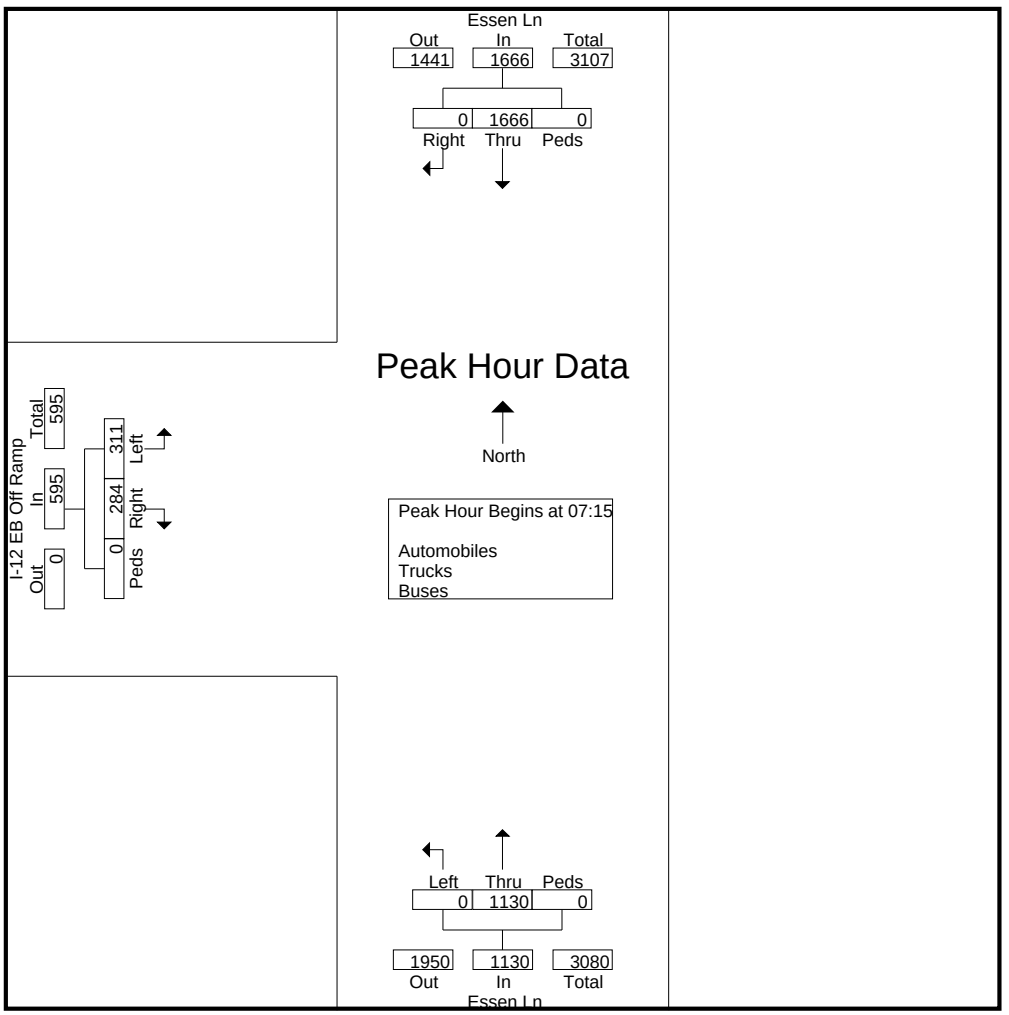
Essen Ln @ I-12 EB Off Ramp
Baton Rouge, LA

File Name : 15076-14 ESSEN LN @ I-12 EB RAMP
Site Code : 15076-14
Start Date : 10/8/2015
Page No : 3

	Essen Ln Southbound				Essen Ln Northbound				I-12 EB Off Ramp Eastbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15													
07:15	420	0	0	420	0	261	0	261	68	60	0	128	809
07:30	**438**	0	0	**438**	0	269	0	269	66	76	0	142	849
07:45	411	0	0	411	0	298	0	298	**99**	**95**	0	**194**	**903**
08:00	397	0	0	397	0	**302**	0	**302**	78	53	0	131	830
Total Volume	1666	0	0	1666	0	1130	0	1130	311	284	0	595	3391
% App. Total	100	0	0		0	100	0		52.3	47.7	0		
PHF	.951	.000	.000	.951	.000	.935	.000	.935	.785	.747	.000	.767	.939



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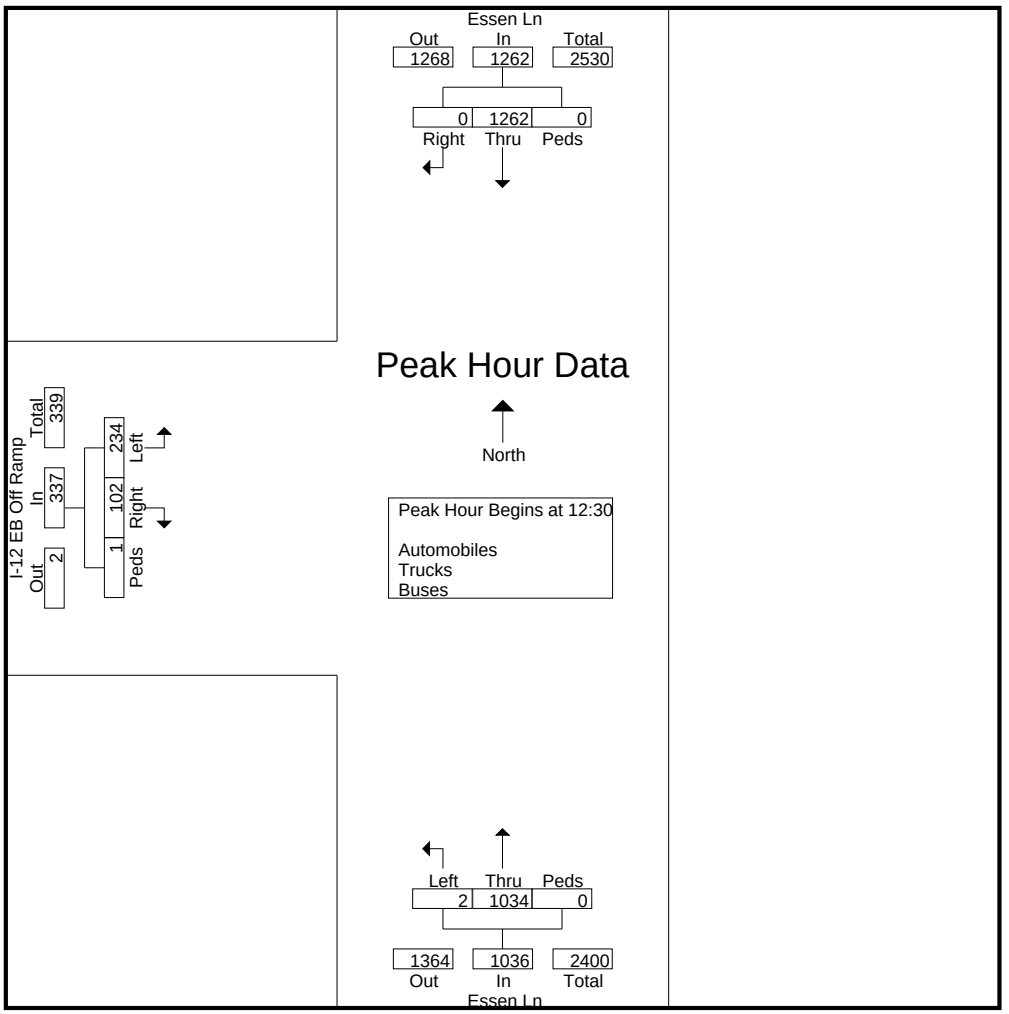
Essen Ln @ I-12 EB Off Ramp
Baton Rouge, LA

File Name : 15076-14 ESSEN LN @ I-12 EB RAMP
Site Code : 15076-14
Start Date : 10/8/2015
Page No : 4

	Essen Ln Southbound				Essen Ln Northbound				I-12 EB Off Ramp Eastbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:30													
12:30	**320**	0	0	**320**	0	266	0	266	61	20	0	81	667
12:45	307	0	0	307	**2**	**280**	0	**282**	**69**	22	0	**91**	**680**
13:00	319	0	0	319	0	257	0	257	53	29	0	82	658
13:15	316	0	0	316	0	231	0	231	51	**31**	**1**	83	630
Total Volume	1262	0	0	1262	2	1034	0	1036	234	102	1	337	2635
% App. Total	100	0	0		0.2	99.8	0		69.4	30.3	0.3		
PHF	.986	.000	.000	.986	.250	.923	.000	.918	.848	.823	.250	.926	.969



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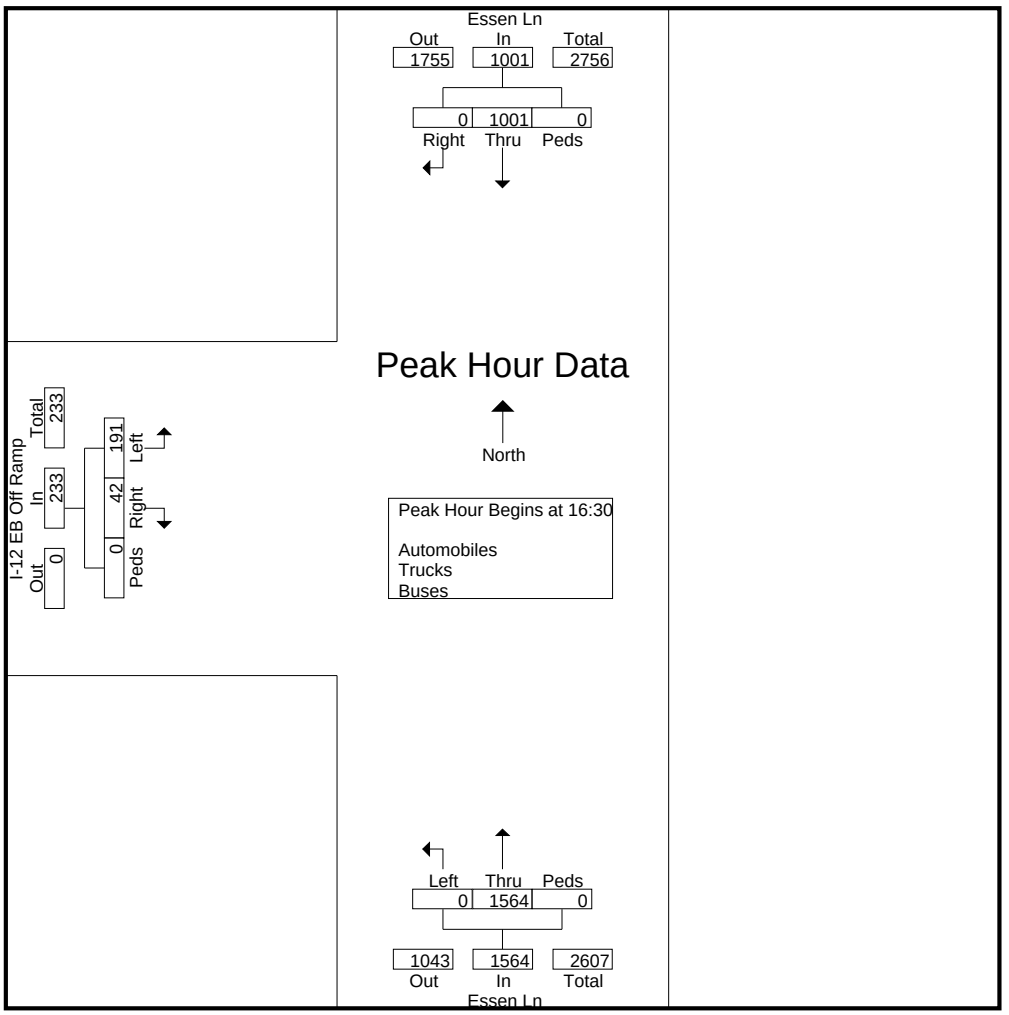
Essen Ln @ I-12 EB Off Ramp
Baton Rouge, LA

File Name : 15076-14 ESSEN LN @ I-12 EB RAMP
Site Code : 15076-14
Start Date : 10/8/2015
Page No : 5

	Essen Ln Southbound				Essen Ln Northbound				I-12 EB Off Ramp Eastbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 14:00 to 17:45 - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 16:30													
16:30	231	0	0	231	0	**425**	0	**425**	30	5	0	35	691
16:45	257	0	0	257	0	365	0	365	**55**	**14**	0	**69**	691
17:00	**258**	0	0	**258**	0	378	0	378	51	10	0	61	697
17:15	255	0	0	255	0	396	0	396	55	13	0	68	**719**
Total Volume	1001	0	0	1001	0	1564	0	1564	191	42	0	233	2798
% App. Total	100	0	0		0	100	0		82	18	0		
PHF	.970	.000	.000	.970	.000	.920	.000	.920	.868	.750	.000	.844	.973



File Name: G:\DATA\2015\Private\15076\TMC's Thursday\15076-14 ESSEN LN @ I-12 EB RAMP.ppd
Start Date: 10/8/2015
Start Time: 7:00:00 AM
Site Code: 15076-14
Comment 1: Essen Ln @ I-12 EB Off Ramp
Comment 2: Baton Rouge, LA
Comment 3:
Comment 4:

HGV % by Movement

	Essen Ln			Essen Ln			I-12 EB Off Ramp		
Start Time	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds
07:00	5%				2%		2%	3%	
07:15	2%				1%		0%	0%	
07:30	0%				1%		0%	0%	
07:45	1%				2%		3%	0%	
08:00	2%				2%		0%	0%	
08:15	1%				1%		0%	2%	
08:30	3%				2%		0%	0%	
08:45	1%				1%		0%	0%	
09:00	2%				4%		2%	0%	
09:15	3%				2%		2%	0%	
09:30	1%				3%		0%	4%	
09:45	1%				2%		2%	0%	
10:00									
10:15									
10:30									
10:45									
11:00									
11:15									
11:30									
11:45									
12:00	1%				2%		0%	0%	
12:15	3%				0%		0%	0%	
12:30	1%				2%		2%	0%	
12:45	2%				3%		1%	0%	
13:00	1%				2%		0%	0%	
13:15	0%				2%		0%	0%	
13:30	1%				2%		3%	0%	
13:45	1%				5%		0%	0%	
14:00									
14:15									
14:30									
14:45									
15:00	1%				2%		0%	0%	
15:15	3%				2%		4%	0%	
15:30	2%				0%		0%	0%	
15:45	1%				1%		0%	0%	
16:00	0%				1%		3%	0%	
16:15	0%				0%		0%	0%	
16:30	1%				1%		0%	0%	
16:45	0%				1%		0%	0%	
17:00	0%				1%		2%	0%	
17:15	0%				1%		0%	0%	
17:30	1%				0%		0%	14%	
17:45	1%				0%		1%	0%	

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ESSEN LN @ I-12 EB RAMPS
BATON ROUGE, LOUISIANA

File Name : 15076-14 SAT ESSEN LN @ I-12 EB RAMPS
Site Code : 15076-14
Start Date : 10/10/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	ESSEN LN Southbound			ESSEN LN Northbound			I-12 EB RAMP Eastbound			
Start Time	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds	Int. Total
12:30	191	0	0	0	193	0	32	12	0	428
12:45	178	0	0	0	206	0	30	12	0	426
Total	369	0	0	0	399	0	62	24	0	854
13:00	205	0	0	0	192	0	33	7	0	437
13:15	242	0	0	0	173	0	31	9	0	455
13:30	182	0	0	0	186	0	39	5	0	412
13:45	149	0	0	0	160	0	39	3	0	351
Total	778	0	0	0	711	0	142	24	0	1655
14:00	220	0	0	0	156	0	28	8	0	412
14:15	165	0	0	0	169	0	35	6	0	375
Grand Total	1532	0	0	0	1435	0	267	62	0	3296
Apprch %	100	0	0	0	100	0	81.2	18.8	0	
Total %	46.5	0	0	0	43.5	0	8.1	1.9	0	
Automobiles	1514	0	0	0	1412	0	266	62	0	3254
% Automobiles	98.8	0	0	0	98.4	0	99.6	100	0	98.7
Trucks	13	0	0	0	19	0	1	0	0	33
% Trucks	0.8	0	0	0	1.3	0	0.4	0	0	1
Buses	5	0	0	0	4	0	0	0	0	9
% Buses	0.3	0	0	0	0.3	0	0	0	0	0.3

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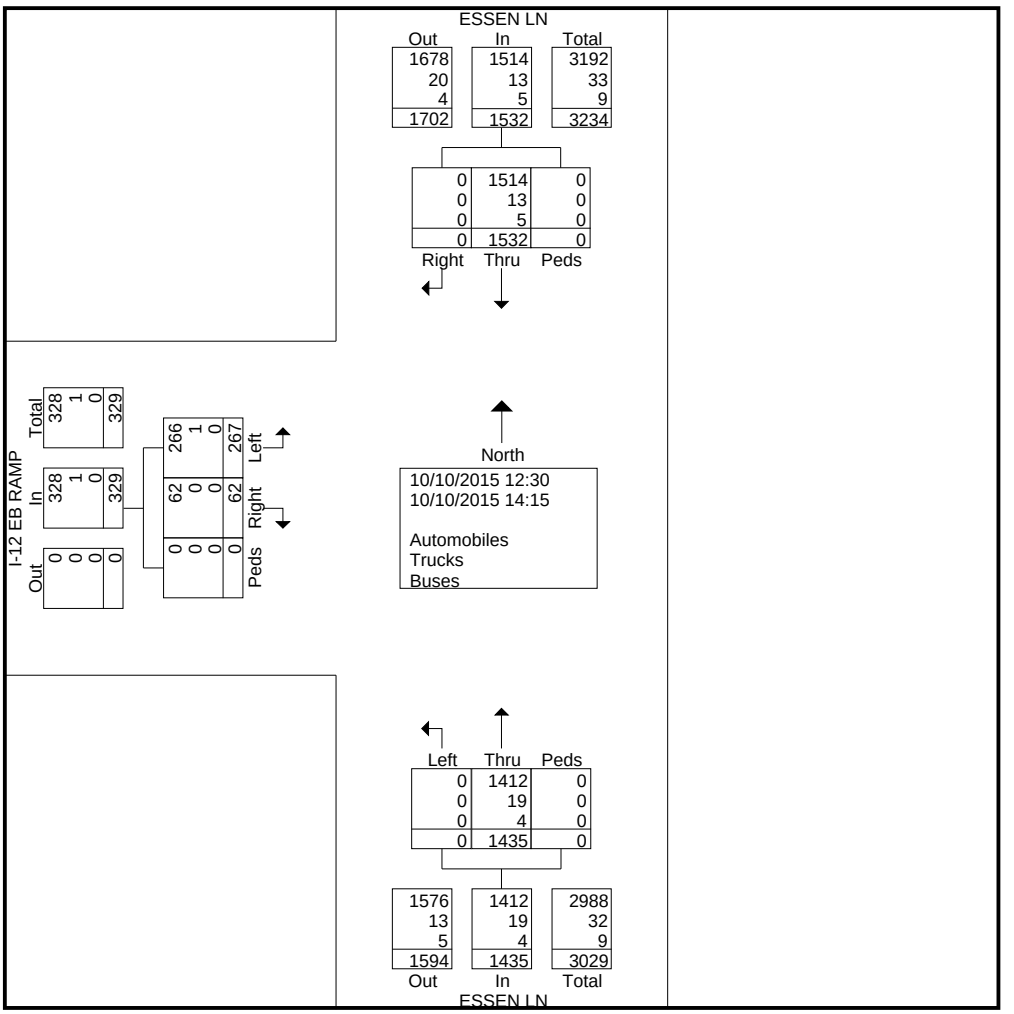
ESSEN LN @ I-12 EB RAMPS
BATON ROUGE, LOUISIANA

File Name : 15076-14 SAT ESSEN LN @ I-12 EB RAMPS
Site Code : 15076-14
Start Date : 10/10/2015
Page No : 2



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ESSEN LN @ I-12 EB RAMPS
BATON ROUGE, LOUISIANA

File Name : 15076-14 SAT ESSEN LN @ I-12 EB RAMPS
Site Code : 15076-14
Start Date : 10/10/2015

	ESSEN LN Southbound				ESSEN LN Northbound				I-12 EB RAMP Eastbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:30 to 14:15 - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:30													
12:30	191	0	0	191	0	193	0	193	32	**12**	0	**44**	428
12:45	178	0	0	178	0	**206**	0	**206**	30	12	0	42	426
13:00	205	0	0	205	0	192	0	192	**33**	7	0	40	437
13:15	**242**	0	0	**242**	0	173	0	173	31	9	0	40	**455**
Total Volume	816	0	0	816	0	764	0	764	126	40	0	166	1746
% App. Total	100	0	0		0	100	0		75.9	24.1	0		
PHF	.843	.000	.000	.843	.000	.927	.000	.927	.955	.833	.000	.943	.959

File Name: G:\DATA\2015\Private\15076\15076-14 SAT ESSEN LN @ I-12 EB RAMPS.ppd
Start Date: 10/10/2015
Start Time: 12:30:00 PM
Site Code: 15076-14
Comment 1: ESSEN LN @ I-12 EB RAMPS
Comment 2: BATON ROUGE, LOUISIANA
Comment 3:
Comment 4:

HGV % by Movement

	ESSEN LN			ESSEN LN			I-12 EB RAMP		
Start Time	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds
12:30	1%				1%		0%	0%	
12:45	1%				0%		3%	0%	
13:00	1%				2%		0%	0%	
13:15	1%				2%		0%	0%	
13:30	2%				1%		0%	0%	
13:45	2%				1%		0%	0%	
14:00	1%				1%		0%	0%	
14:15	1%				5%		0%	0%	

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BLUEBONNET BLVD @ PERKINS RD
BATON ROUGE, LOUISIANA

File Name : 15076-1 BLUEBONNET BLVD @ PERKINS RD
Site Code : 15076-1
Start Date : 10/8/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	BLUEBONNET BLVD Southbound				PERKINS RD Westbound				BLUEBONNET BLVD Northbound				PERKINS RD Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00	39	143	37	0	38	158	61	0	41	191	17	0	25	55	10	0	815
07:15	49	221	49	0	23	201	89	0	57	237	17	0	28	74	0	1	1046
07:30	76	256	61	0	39	189	81	0	39	300	30	0	34	120	4	0	1229
07:45	73	204	67	0	48	162	66	0	48	293	41	0	54	130	11	0	1197
Total	237	824	214	0	148	710	297	0	185	1021	105	0	141	379	25	1	4287
08:00	62	205	70	0	69	196	65	0	59	338	27	0	60	120	9	0	1280
08:15	51	238	62	0	42	141	30	0	40	236	25	0	58	146	12	0	1081
08:30	43	196	39	0	51	136	33	0	48	256	22	0	45	105	14	0	988
08:45	56	194	34	0	56	128	43	0	62	218	42	0	39	92	13	0	977
Total	212	833	205	0	218	601	171	0	209	1048	116	0	202	463	48	0	4326
09:00	65	180	35	0	41	146	53	0	47	184	31	0	43	119	23	0	967
09:15	58	169	40	0	41	110	46	0	48	191	24	0	41	97	18	0	883
09:30	53	171	50	0	48	131	63	0	53	196	30	0	41	125	31	0	992
09:45	44	171	36	0	46	142	63	0	37	203	34	1	63	89	16	0	945
Total	220	691	161	0	176	529	225	0	185	774	119	1	188	430	88	0	3787
BREAK																	
12:00	97	216	44	0	70	146	51	0	46	229	42	0	63	175	31	0	1210
12:15	85	183	59	0	76	140	64	0	46	253	40	0	67	172	28	0	1213
12:30	77	215	63	0	55	150	53	0	54	265	45	0	71	158	24	0	1230
12:45	92	231	58	0	66	143	37	0	43	320	43	0	78	143	14	0	1268
Total	351	845	224	0	267	579	205	0	189	1067	170	0	279	648	97	0	4921
13:00	100	230	50	0	58	144	55	0	47	265	23	0	54	149	18	0	1193
13:15	86	231	63	0	77	142	65	0	38	237	24	0	59	151	9	0	1182
13:30	82	209	66	0	59	150	65	0	56	236	25	0	52	127	24	0	1151
13:45	87	215	37	0	78	144	56	0	43	250	36	3	57	135	24	0	1165
Total	355	885	216	0	272	580	241	0	184	988	108	3	222	562	75	0	4691
BREAK																	
15:00	99	241	58	0	69	136	68	0	38	248	34	0	63	164	21	0	1239
15:15	65	212	62	0	86	153	62	0	43	291	34	0	56	180	13	0	1257
15:30	75	209	56	0	71	125	61	0	30	227	33	0	75	188	24	0	1174
15:45	96	245	45	0	47	148	58	0	34	304	27	0	80	202	49	0	1335
Total	335	907	221	0	273	562	249	0	145	1070	128	0	274	734	107	0	5005
16:00	77	195	52	0	82	142	71	0	28	231	17	0	66	178	30	0	1169
16:15	109	226	56	0	81	114	64	0	33	280	34	0	58	226	18	0	1299
16:30	87	258	47	0	56	139	60	0	43	241	27	0	60	210	24	0	1252
16:45	62	243	42	0	67	155	55	0	44	276	26	0	52	192	24	0	1238
Total	335	922	197	0	286	550	250	0	148	1028	104	0	236	806	96	0	4958
17:00	114	240	67	0	70	133	46	0	32	192	23	0	74	220	15	0	1226
17:15	113	231	49	0	75	150	36	0	28	280	23	0	43	198	34	0	1260
17:30	75	233	54	0	81	144	56	0	43	261	24	0	68	202	18	0	1259
17:45	110	211	51	0	77	122	46	0	26	256	32	0	67	191	17	0	1206
Total	412	915	221	0	303	549	184	0	129	989	102	0	252	811	84	0	4951
Grand Total	2457	6822	1659	0	1943	4660	1822	0	1374	7985	952	4	1794	4833	620	1	36926
Apprch %	22.5	62.4	15.2	0	23.1	55.3	21.6	0	13.3	77.4	9.2	0	24.8	66.7	8.6	0	
Total %	6.7	18.5	4.5	0	5.3	12.6	4.9	0	3.7	21.6	2.6	0	4.9	13.1	1.7	0	
Automobiles	2392	6680	1590	0	1910	4585	1786	0	1353	7861	926	3	1753	4776	613	1	36229
% Automobiles	97.4	97.9	95.8	0	98.3	98.4	98	0	98.5	98.4	97.3	75	97.7	98.8	98.9	100	98.1
Trucks	51	120	61	0	29	58	29	0	19	101	23	1	23	43	7	0	565
% Trucks	2.1	1.8	3.7	0	1.5	1.2	1.6	0	1.4	1.3	2.4	25	1.3	0.9	1.1	0	1.5
Buses	14	22	8	0	4	17	7	0	2	23	3	0	18	14	0	0	132
% Buses	0.6	0.3	0.5	0	0.2	0.4	0.4	0	0.1	0.3	0.3	0	1	0.3	0	0	0.4

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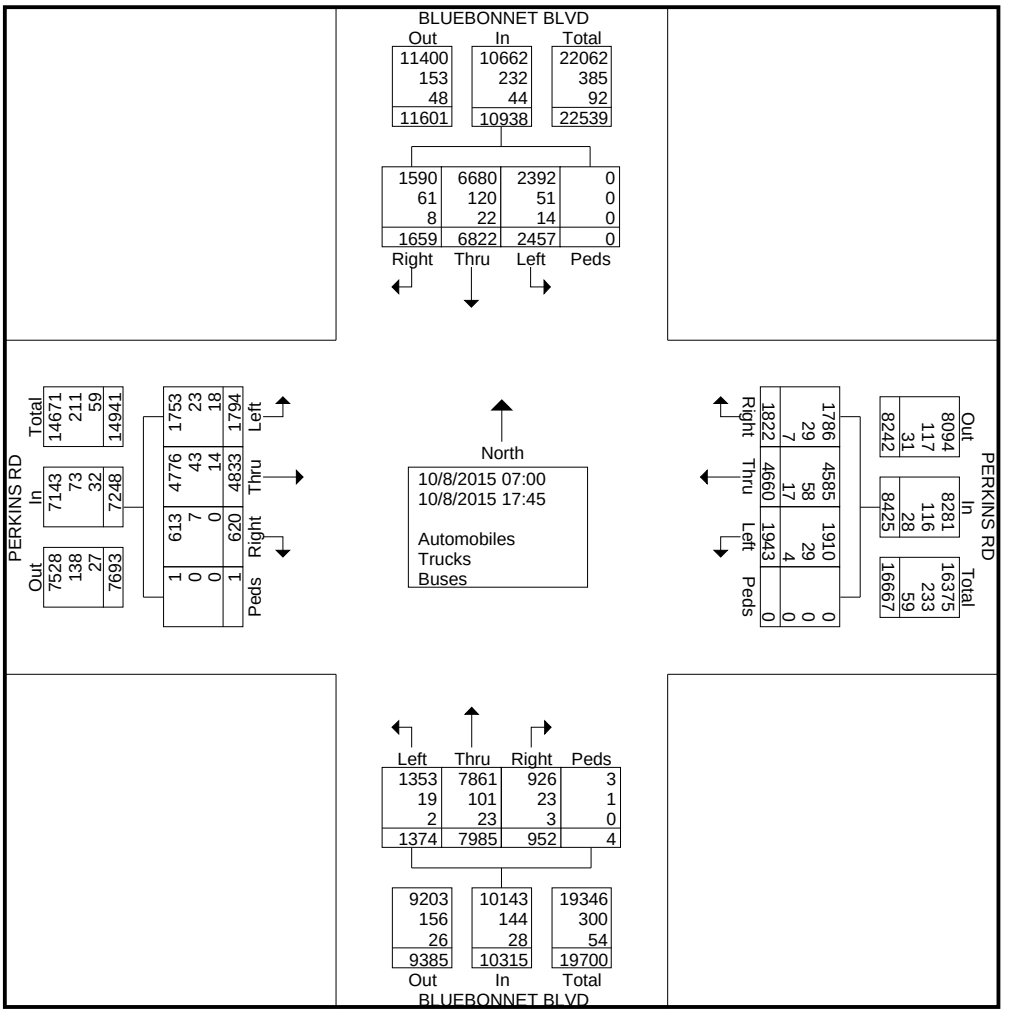

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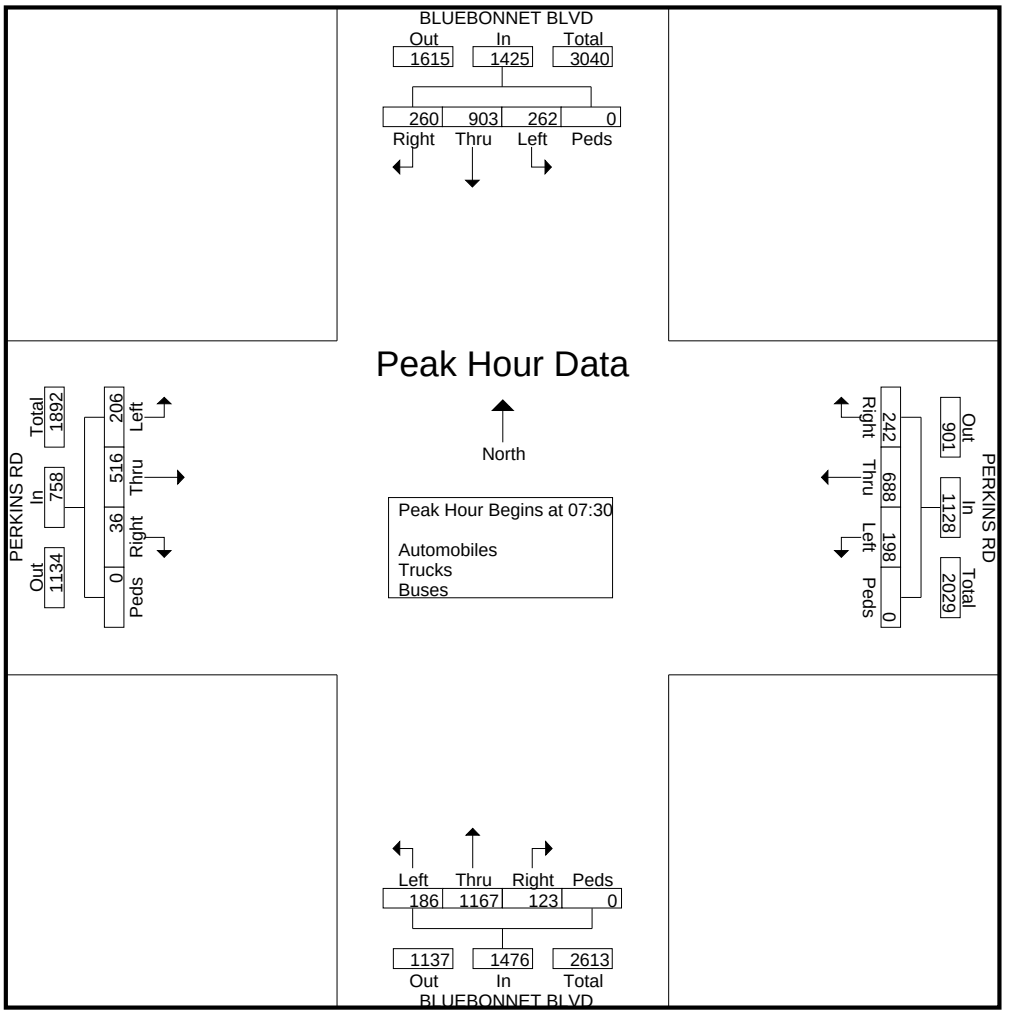
BLUEBONNET BLVD @ PERKINS RD
BATON ROUGE, LOUISIANA

File Name : 15076-1 BLUEBONNET BLVD @ PERKINS RD
Site Code : 15076-1
Start Date : 10/8/2015
Page No : 3

	BLUEBONNET BLVD Southbound					PERKINS RD Westbound					BLUEBONNET BLVD Northbound					PERKINS RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	**76**	**256**	61	0	**393**	39	189	**81**	0	309	39	300	30	0	369	34	120	4	0	158	1229
07:45	73	204	67	0	344	48	162	66	0	276	48	293	**41**	0	382	54	130	11	0	195	1197
08:00	62	205	**70**	0	337	**69**	**196**	65	0	**330**	**59**	**338**	27	0	**424**	**60**	120	9	0	189	**1280**
08:15	51	238	62	0	351	42	141	30	0	213	40	236	25	0	301	58	**146**	**12**	0	**216**	1081
Total Volume	262	903	260	0	1425	198	688	242	0	1128	186	1167	123	0	1476	206	516	36	0	758	4787
% App. Total	18.4	63.4	18.2	0		17.6	61	21.5	0		12.6	79.1	8.3	0		27.2	68.1	4.7	0		
PHF	.862	.882	.929	.000	.906	.717	.878	.747	.000	.855	.788	.863	.750	.000	.870	.858	.884	.750	.000	.877	.935



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BLUEBONNET BLVD @ PERKINS RD
BATON ROUGE, LOUISIANA

File Name : 15076-1 BLUEBONNET BLVD @ PERKINS RD
Site Code : 15076-1
Start Date : 10/8/2015
Page No : 4

	BLUEBONNET BLVD Southbound					PERKINS RD Westbound					BLUEBONNET BLVD Northbound					PERKINS RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00																					
12:00	**97**	216	44	0	357	70	146	51	0	267	46	229	42	0	317	63	**175**	**31**	0	**269**	1210
12:15	85	183	59	0	327	**76**	140	**64**	0	**280**	46	253	40	0	339	67	172	28	0	267	1213
12:30	77	215	**63**	0	355	55	**150**	53	0	258	**54**	265	**45**	0	364	71	158	24	0	253	1230
12:45	92	**231**	58	0	**381**	66	143	37	0	246	43	**320**	43	0	**406**	**78**	143	14	0	235	**1268**
Total Volume	351	845	224	0	1420	267	579	205	0	1051	189	1067	170	0	1426	279	648	97	0	1024	4921
% App. Total	24.7	59.5	15.8	0		25.4	55.1	19.5	0		13.3	74.8	11.9	0		27.2	63.3	9.5	0		
PHF	.905	.915	.889	.000	.932	.878	.965	.801	.000	.938	.875	.834	.944	.000	.878	.894	.926	.782	.000	.952	.970

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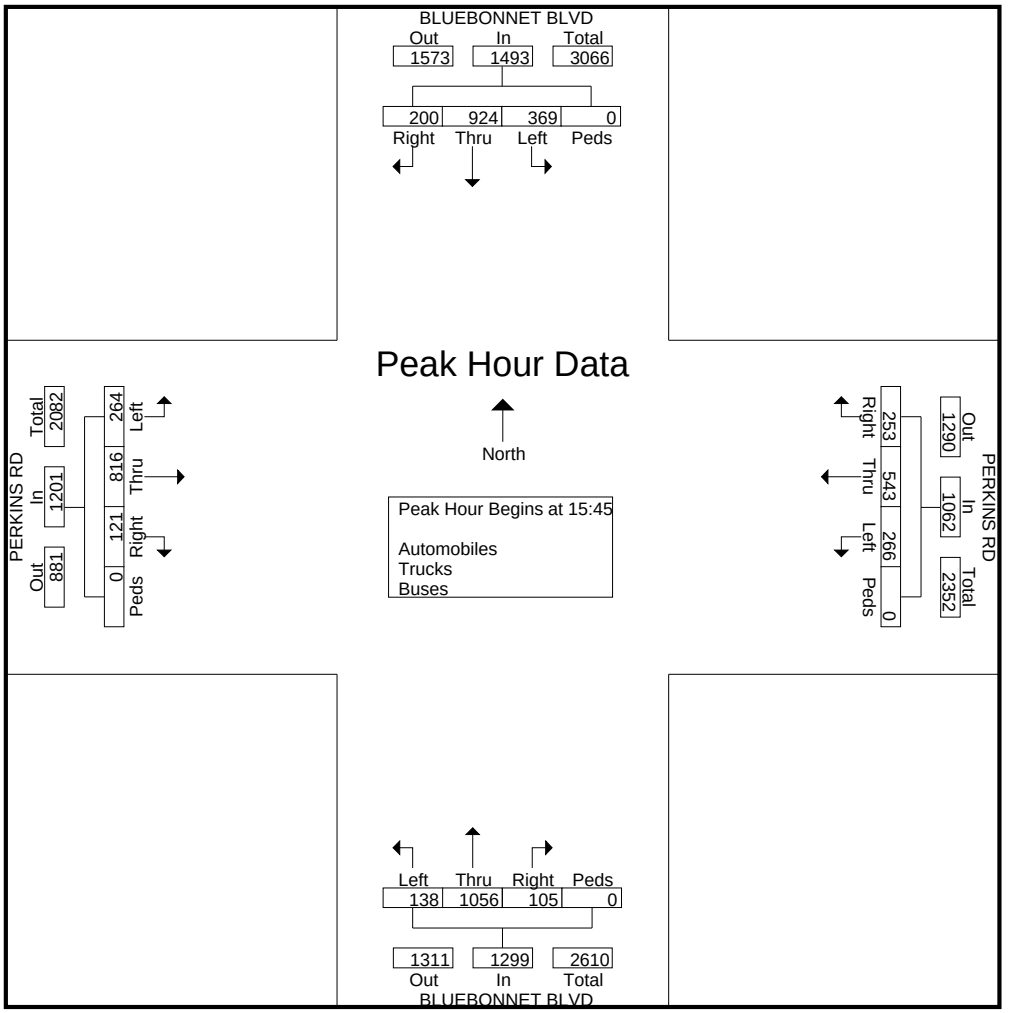
BLUEBONNET BLVD @ PERKINS RD
BATON ROUGE, LOUISIANA

File Name : 15076-1 BLUEBONNET BLVD @ PERKINS RD
Site Code : 15076-1
Start Date : 10/8/2015
Page No : 5

	BLUEBONNET BLVD Southbound					PERKINS RD Westbound					BLUEBONNET BLVD Northbound					PERKINS RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 14:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 15:45																					
15:45	96	245	45	0	386	47	**148**	58	0	253	34	**304**	27	0	**365**	**80**	202	**49**	0	**331**	**1335**
16:00	77	195	52	0	324	**82**	142	**71**	0	**295**	28	231	17	0	276	66	178	30	0	274	1169
16:15	**109**	226	**56**	0	391	81	114	64	0	259	33	280	**34**	0	347	58	**226**	18	0	302	1299
16:30	87	**258**	47	0	**392**	56	139	60	0	255	**43**	241	27	0	311	60	210	24	0	294	1252
Total Volume	369	924	200	0	1493	266	543	253	0	1062	138	1056	105	0	1299	264	816	121	0	1201	5055
% App. Total	24.7	61.9	13.4	0		25	51.1	23.8	0		10.6	81.3	8.1	0		22	67.9	10.1	0		
PHF	.846	.895	.893	.000	.952	.811	.917	.891	.000	.900	.802	.868	.772	.000	.890	.825	.903	.617	.000	.907	.947



File Name: G:\DATA\2015\Private\15076\TMC's Thursday\15076-1 BLUEBONNET BLVD @ PERKINS RD.ppd
Start Date: 10/8/2015
Start Time: 7:00:00 AM
Site Code: 15076-1
Comment 1: BLUEBONNET BLVD @ PERKINS RD
Comment 2: BATON ROUGE, LOUISIANA
Comment 3:
Comment 4:

HGV % by Movement

	BLUEBONNET BLVD				PERKINS RD				BLUEBONNET BLVD				PERKINS RD			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00	13%	4%	3%		5%	3%	2%		0%	2%	6%		8%	9%	0%	
07:15	0%	3%	4%		4%	1%	4%		0%	1%	0%		7%	7%	#DIV/0!	
07:30	3%	2%	2%		0%	3%	0%		0%	1%	0%		0%	3%	0%	
07:45	3%	2%	0%		4%	1%	0%		2%	0%	5%		0%	1%	0%	
08:00	3%	2%	3%		0%	3%	2%		0%	1%	0%		3%	2%	0%	
08:15	0%	2%	3%		0%	5%	7%		0%	1%	0%		2%	1%	0%	
08:30	2%	2%	13%		4%	1%	0%		2%	0%	0%		2%	2%	0%	
08:45	2%	2%	6%		2%	2%	2%		0%	1%	2%		3%	1%	0%	
09:00	0%	4%	11%		2%	1%	2%		0%	2%	3%		0%	2%	4%	
09:15	2%	2%	15%		2%	3%	2%		0%	4%	4%		2%	0%	6%	
09:30	4%	5%	4%		4%	2%	0%		2%	3%	0%		7%	2%	0%	
09:45	5%	3%	11%		2%	2%	3%		3%	1%	6%		3%	0%	0%	
10:00																
10:15																
10:30																
10:45																
11:00																
11:15																
11:30																
11:45																
12:00	1%	1%	7%		3%	1%	2%		2%	1%	2%		8%	2%	3%	
12:15	1%	4%	8%		3%	1%	2%		4%	2%	0%		3%	1%	4%	
12:30	8%	4%	8%		2%	1%	6%		2%	1%	0%		3%	1%	0%	
12:45	8%	0%	10%		3%	1%	3%		2%	1%	5%		0%	1%	0%	
13:00	4%	3%	4%		2%	0%	2%		0%	2%	9%		2%	0%	11%	
13:15	3%	1%	5%		0%	0%	3%		3%	3%	13%		2%	1%	0%	
13:30	0%	1%	0%		2%	3%	3%		2%	2%	0%		0%	0%	0%	
13:45	5%	3%	8%		0%	3%	2%		0%	1%	6%		2%	1%	0%	
14:00																
14:15																
14:30																
14:45																
15:00	2%	2%	5%		3%	1%	1%		8%	3%	3%		2%	0%	0%	
15:15	2%	1%	0%		1%	1%	3%		0%	1%	3%		2%	0%	0%	
15:30	3%	3%	0%		1%	2%	0%		3%	4%	3%		7%	2%	0%	
15:45	3%	1%	0%		0%	1%	2%		0%	1%	11%		1%	2%	0%	
16:00	3%	2%	6%		1%	3%	4%		0%	0%	6%		0%	2%	0%	
16:15	2%	1%	4%		4%	1%	0%		0%	2%	0%		3%	0%	6%	
16:30	2%	1%	0%		2%	1%	2%		7%	1%	0%		0%	2%	0%	
16:45	2%	2%	2%		1%	1%	2%		0%	0%	0%		0%	1%	0%	
17:00	0%	2%	0%		0%	0%	0%		3%	2%	4%		3%	1%	0%	
17:15	1%	2%	2%		0%	0%	0%		7%	1%	0%		2%	0%	0%	
17:30	0%	0%	0%		0%	1%	2%		0%	2%	0%		0%	0%	0%	
17:45	5%	0%	2%		1%	0%	2%		0%	2%	0%		1%	1%	0%	

Southern Traffic Services, Inc.

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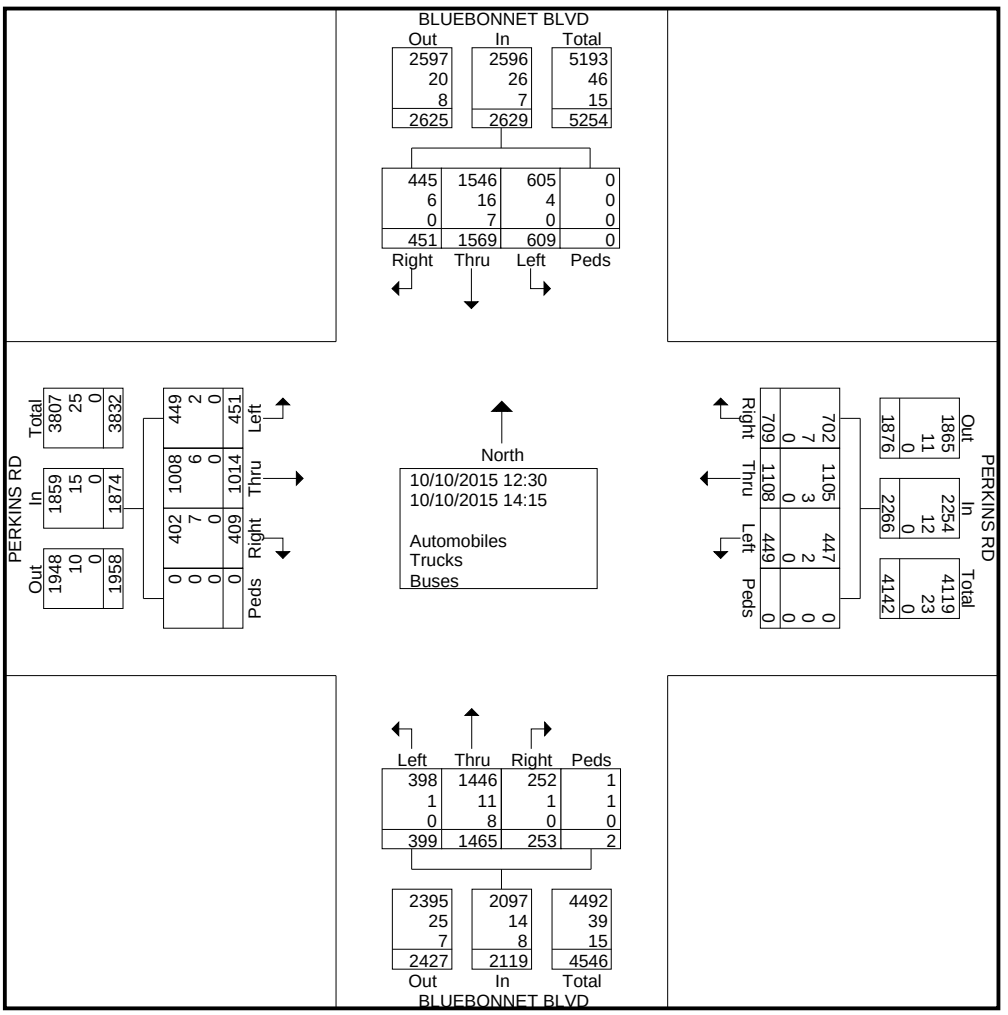
BLUEBONNET BLVD @ PERKINS RD
BATON ROUGE, LOUISIANA

File Name : 15076-1 SAT BLUEBONNET BLVD @ PERKINS RD
Site Code : 15076-1
Start Date : 10/10/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	BLUEBONNET BLVD Southbound				PERKINS RD Westbound				BLUEBONNET BLVD Northbound				PERKINS RD Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
12:30	67	215	59	0	67	132	109	0	65	189	37	0	56	119	47	0	1162
12:45	69	227	50	0	58	146	105	0	50	197	31	1	59	124	60	0	1177
Total	136	442	109	0	125	278	214	0	115	386	68	1	115	243	107	0	2339
13:00	72	204	48	0	68	147	77	0	37	175	36	0	57	150	47	0	1118
13:15	74	185	50	0	51	147	84	0	52	162	31	0	47	126	50	0	1059
13:30	87	172	54	0	57	139	86	0	43	191	28	0	67	127	48	0	1099
13:45	80	181	73	0	48	135	88	0	49	208	28	0	72	122	46	0	1130
Total	313	742	225	0	224	568	335	0	181	736	123	0	243	525	191	0	4406
14:00	72	176	63	0	52	139	74	0	60	174	30	1	40	126	61	0	1068
14:15	88	209	54	0	48	123	86	0	43	169	32	0	53	120	50	0	1075
Grand Total	609	1569	451	0	449	1108	709	0	399	1465	253	2	451	1014	409	0	8888
Apprch %	23.2	59.7	17.2	0	19.8	48.9	31.3	0	18.8	69.1	11.9	0.1	24.1	54.1	21.8	0	
Total %	6.9	17.7	5.1	0	5.1	12.5	8	0	4.5	16.5	2.8	0	5.1	11.4	4.6	0	
Automobiles	605	1546	445	0	447	1105	702	0	398	1446	252	1	449	1008	402	0	8806
% Automobiles	99.3	98.5	98.7	0	99.6	99.7	99	0	99.7	98.7	99.6	50	99.6	99.4	98.3	0	99.1
Trucks	4	16	6	0	2	3	7	0	1	11	1	1	2	6	7	0	67
% Trucks	0.7	1	1.3	0	0.4	0.3	1	0	0.3	0.8	0.4	50	0.4	0.6	1.7	0	0.8
Buses	0	7	0	0	0	0	0	0	0	8	0	0	0	0	0	0	15
% Buses	0	0.4	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0.2



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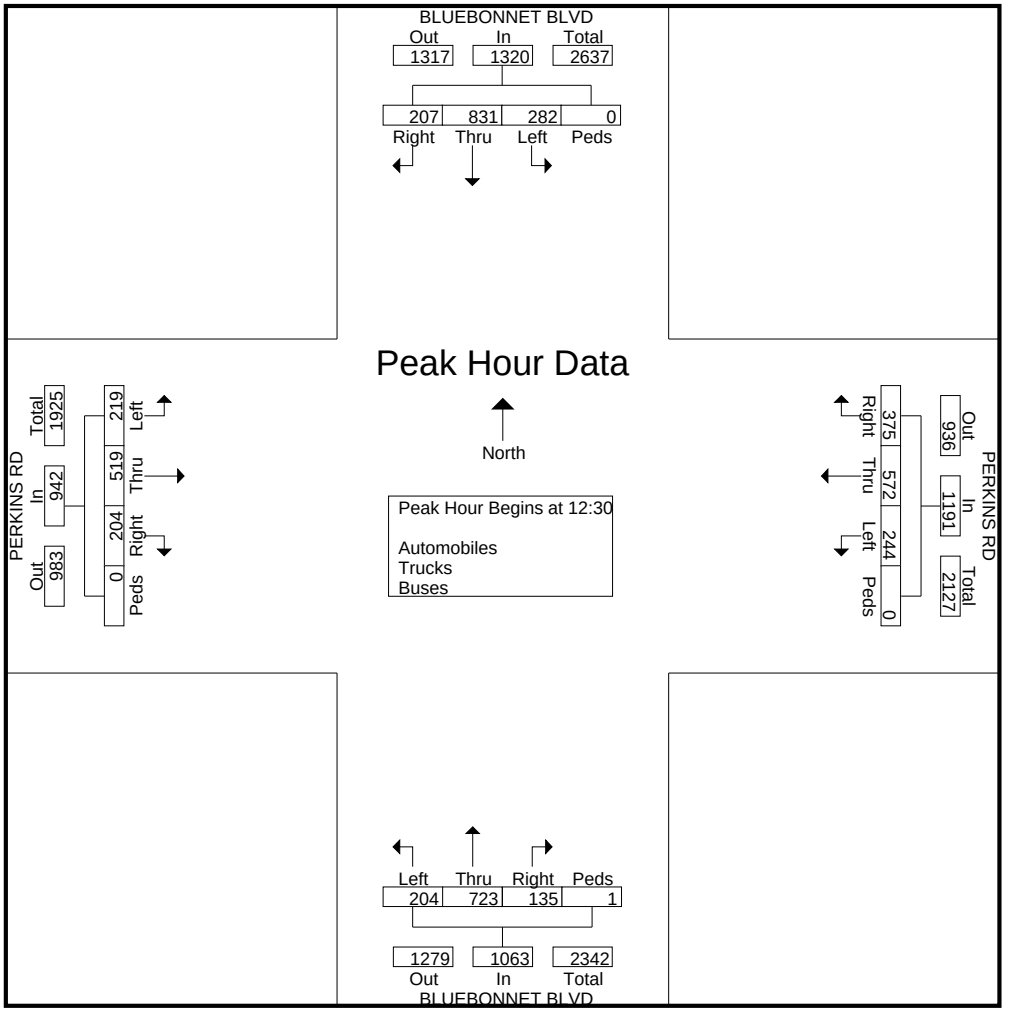
BLUEBONNET BLVD @ PERKINS RD
BATON ROUGE, LOUISIANA

File Name : 15076-1 SAT BLUEBONNET BLVD @ PERKINS RD
Site Code : 15076-1
Start Date : 10/10/2015

	BLUEBONNET BLVD Southbound					PERKINS RD Westbound					BLUEBONNET BLVD Northbound					PERKINS RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:30 to 14:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30																					
12:30	67	215	**59**	0	341	67	132	**109**	0	308	**65**	189	**37**	0	**291**	56	119	47	0	222	1162
12:45	69	**227**	50	0	**346**	58	146	105	0	**309**	50	**197**	31	**1**	279	**59**	124	**60**	0	243	**1177**
13:00	72	204	48	0	324	**68**	**147**	77	0	292	37	175	36	0	248	57	**150**	47	0	**254**	1118
13:15	**74**	185	50	0	309	51	147	84	0	282	52	162	31	0	245	47	126	50	0	223	1059
Total Volume	282	831	207	0	1320	244	572	375	0	1191	204	723	135	1	1063	219	519	204	0	942	4516
% App. Total	21.4	63	15.7	0		20.5	48	31.5	0		19.2	68	12.7	0.1		23.2	55.1	21.7	0		
PHF	.953	.915	.877	.000	.954	.897	.973	.860	.000	.964	.785	.918	.912	.250	.913	.928	.865	.850	.000	.927	.959



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Start Date: 10/10/2015
Start Time: 12:30:00 PM
Site Code: 15076-1
Comment 1: BLUEBONNET BLVD @ PERKINS RD
Comment 2: BATON ROUGE, LOUISIANA
Comment 3:
Comment 4:

HGV % by Movement

	BLUEBONNET BLVD				PERKINS RD				BLUEBONNET BLVD				PERKINS RD			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
12:30	0%	0%	2%		0%	1%	1%		0%	2%	3%		0%	1%	2%	
12:45	0%	3%	0%		2%	0%	1%		0%	1%	0%		0%	0%	3%	
13:00	0%	3%	0%		0%	1%	0%		0%	1%	0%		2%	0%	0%	
13:15	1%	0%	2%		0%	0%	0%		0%	1%	0%		0%	0%	2%	
13:30	0%	1%	2%		0%	0%	0%		0%	3%	0%		0%	1%	0%	
13:45	3%	2%	1%		2%	0%	1%		0%	0%	0%		0%	1%	2%	
14:00	0%	1%	2%		0%	1%	4%		2%	1%	0%		0%	0%	3%	
14:15	1%	2%	2%		0%	0%	1%		0%	1%	0%		2%	3%	0%	

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BLUEBONNET BLVD @ PARK ROWE AVE
BATON ROUGE, LOUISIANA

File Name : 15076-2 BLUEBONNET AVE @ PARK ROWE
Site Code : 15076-2 AM2
Start Date : 10/8/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	BLUEBONNET BLVD Southbound				PARK ROWE AVE Westbound				BLUEBONNET BLVD Northbound				PARK ROWE AVE Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00	36	214	15	1	2	1	10	0	5	260	7	0	15	3	1	0	570
07:15	39	311	15	0	3	0	9	0	2	344	8	0	5	1	5	0	742
07:30	70	323	11	0	1	0	13	0	4	403	8	0	14	3	7	0	857
07:45	72	331	12	0	8	3	20	1	5	397	11	0	14	3	4	0	881
Total	217	1179	53	1	14	4	52	1	16	1404	34	0	48	10	17	0	3050
08:00	78	330	20	0	6	0	14	0	10	385	8	0	15	6	8	0	880
08:15	85	340	11	3	7	0	13	3	3	310	11	0	10	3	5	0	804
08:30	91	272	17	0	3	5	19	0	3	320	11	1	14	3	3	0	762
08:45	52	278	11	1	6	3	22	1	3	287	10	0	16	6	8	0	704
Total	306	1220	59	4	22	8	68	4	19	1302	40	1	55	18	24	0	3150
09:00	50	269	13	0	5	1	13	0	2	275	3	0	10	1	3	0	645
09:15	58	256	7	0	5	0	12	0	4	272	6	0	11	2	4	0	637
09:30	58	263	13	0	7	3	15	0	5	288	7	2	20	3	4	0	688
09:45	50	242	11	1	3	3	17	0	11	306	12	0	15	3	6	0	680
Total	216	1030	44	1	20	7	57	0	22	1141	28	2	56	9	17	0	2650
BREAK																	
12:00	84	321	29	0	21	4	37	0	7	317	14	1	24	5	15	0	879
12:15	80	305	21	0	14	4	34	0	8	365	11	0	31	5	8	0	886
12:30	74	322	23	0	18	3	34	0	13	368	8	0	33	4	14	0	914
12:45	70	341	25	0	21	2	59	0	8	378	14	0	33	6	19	0	976
Total	308	1289	98	0	74	13	164	0	36	1428	47	1	121	20	56	0	3655
13:00	81	358	27	0	15	3	51	0	3	358	13	0	29	5	7	0	950
13:15	74	354	17	0	16	3	40	0	3	341	17	0	16	6	10	0	897
13:30	70	320	18	0	19	6	40	0	7	338	7	0	33	6	9	0	873
13:45	59	323	17	0	8	3	37	0	1	348	14	0	27	2	8	0	847
Total	284	1355	79	0	58	15	168	0	14	1385	51	0	105	19	34	0	3567
BREAK																	
15:00	39	382	13	1	9	4	46	0	10	360	9	0	18	4	7	0	902
15:15	59	318	19	0	11	3	26	0	8	394	7	0	18	2	10	0	875
15:30	60	306	19	0	12	0	43	0	7	344	12	2	30	6	22	0	863
15:45	53	363	12	0	12	1	22	0	5	420	17	0	15	6	11	0	937
Total	211	1369	63	1	44	8	137	0	30	1518	45	2	81	18	50	0	3577
16:00	44	309	15	0	7	3	43	0	7	358	9	0	22	3	8	0	828
16:15	64	360	17	0	17	6	44	0	7	386	9	0	19	2	13	0	944
16:30	71	354	15	1	21	7	54	1	7	345	9	0	16	1	17	0	919
16:45	59	321	16	1	18	3	39	0	8	359	16	0	23	2	8	0	873
Total	238	1344	63	2	63	19	180	1	29	1448	43	0	80	8	46	0	3564
17:00	79	397	24	0	10	1	44	0	3	300	9	0	17	4	14	0	902
17:15	72	367	16	0	13	3	39	0	4	353	2	0	22	6	13	0	910
17:30	99	356	22	0	16	2	30	0	5	366	14	0	13	6	10	0	939
17:45	76	326	17	0	7	5	25	0	13	350	6	0	14	1	9	0	849
Total	326	1446	79	0	46	11	138	0	25	1369	31	0	66	17	46	0	3600
Grand Total	2106	10232	538	9	341	85	964	6	191	10995	319	6	612	119	290	0	26813
Apprch %	16.3	79.4	4.2	0.1	24.4	6.1	69.1	0.4	1.7	95.5	2.8	0.1	59.9	11.7	28.4	0	
Total %	7.9	38.2	2	0	1.3	0.3	3.6	0	0.7	41	1.2	0	2.3	0.4	1.1	0	
Automobiles	2060	9936	531	7	332	81	944	6	188	10798	314	6	604	113	287	0	26207
% Automobiles	97.8	97.1	98.7	77.8	97.4	95.3	97.9	100	98.4	98.2	98.4	100	98.7	95	99	0	97.7
Trucks	36	233	7	2	8	4	15	0	3	136	4	0	8	6	3	0	465
% Trucks	1.7	2.3	1.3	22.2	2.3	4.7	1.6	0	1.6	1.2	1.3	0	1.3	5	1	0	1.7
Buses	10	63	0	0	1	0	5	0	0	61	1	0	0	0	0	0	141
% Buses	0.5	0.6	0	0	0.3	0	0.5	0	0	0.6	0.3	0	0	0	0	0	0.5

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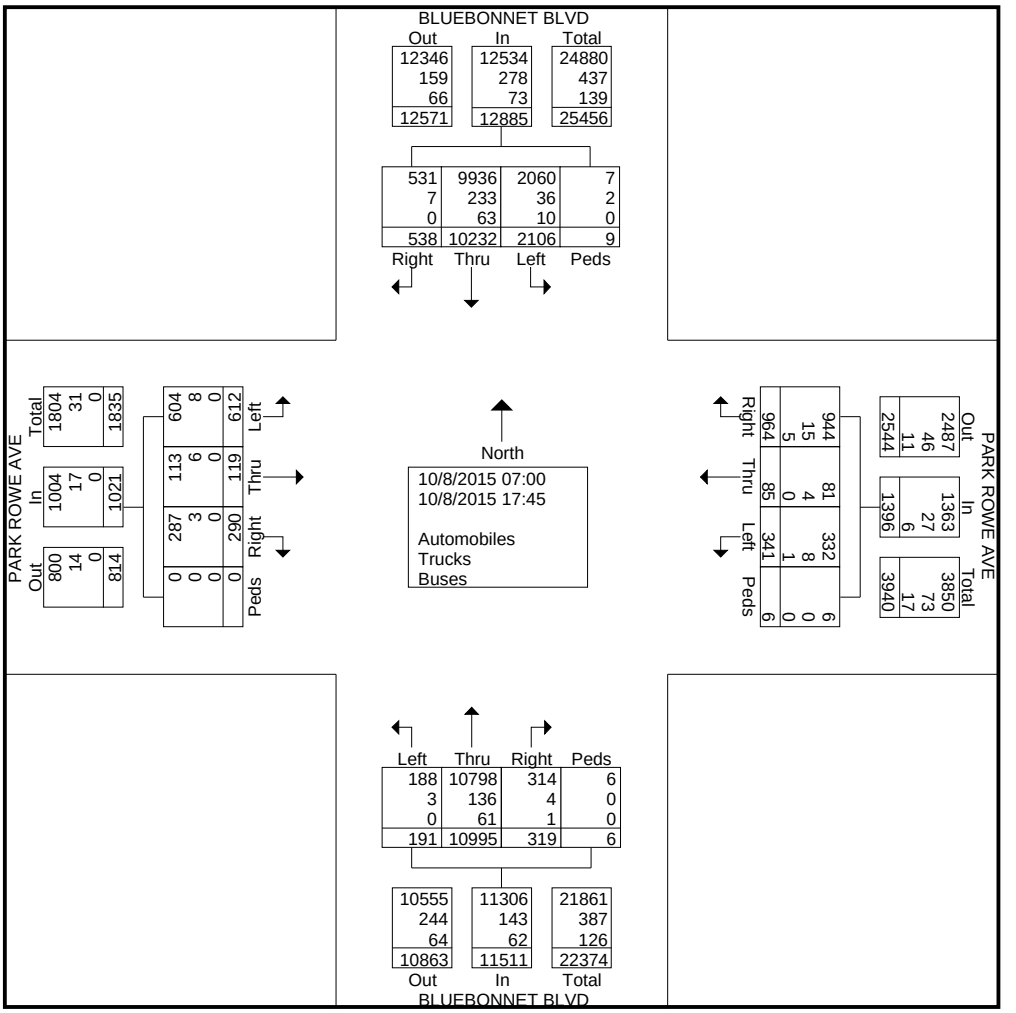

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BLUEBONNET BLVD @ PARK ROWE AVE
BATON ROUGE, LOUISIANA

File Name : 15076-2 BLUEBONNET AVE @ PARK ROWE
Site Code : 15076-2 AM2
Start Date : 10/8/2015

	BLUEBONNET BLVD Southbound					PARK ROWE AVE Westbound					BLUEBONNET BLVD Northbound					PARK ROWE AVE Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	70	323	11	0	404	1	0	13	0	14	4	**403**	8	0	**415**	14	3	7	0	24	857
07:45	72	331	12	0	415	**8**	**3**	**20**	1	**32**	5	397	**11**	0	413	14	3	4	0	21	**881**
08:00	78	330	**20**	0	428	6	0	14	0	20	**10**	385	8	0	403	**15**	**6**	**8**	0	**29**	880
08:15	**85**	**340**	11	**3**	**439**	7	0	13	**3**	23	3	310	11	0	324	10	3	5	0	18	804
Total Volume	305	1324	54	3	1686	22	3	60	4	89	22	1495	38	0	1555	53	15	24	0	92	3422
% App. Total	18.1	78.5	3.2	0.2		24.7	3.4	67.4	4.5		1.4	96.1	2.4	0		57.6	16.3	26.1	0		
PHF	.897	.974	.675	.250	.960	.688	.250	.750	.333	.695	.550	.927	.864	.000	.937	.883	.625	.750	.000	.793	.971

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BLUEBONNET BLVD @ PARK ROWE AVE
BATON ROUGE, LOUISIANA

File Name : 15076-2 BLUEBONNET AVE @ PARK ROWE
Site Code : 15076-2 AM2
Start Date : 10/8/2015
Page No : 4

	BLUEBONNET BLVD Southbound					PARK ROWE AVE Westbound					BLUEBONNET BLVD Northbound					PARK ROWE AVE Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30																					
12:30	74	322	23	0	419	18	**3**	34	0	55	**13**	368	8	0	389	**33**	4	14	0	51	914
12:45	70	341	25	0	436	**21**	2	**59**	0	**82**	8	**378**	14	0	**400**	33	**6**	**19**	0	**58**	**976**
13:00	**81**	**358**	**27**	0	**466**	15	3	51	0	69	3	358	13	0	374	29	5	7	0	41	950
13:15	74	354	17	0	445	16	3	40	0	59	3	341	**17**	0	361	16	6	10	0	32	897
Total Volume	299	1375	92	0	1766	70	11	184	0	265	27	1445	52	0	1524	111	21	50	0	182	3737
% App. Total	16.9	77.9	5.2	0		26.4	4.2	69.4	0		1.8	94.8	3.4	0		61	11.5	27.5	0		
PHF	.923	.960	.852	.000	.947	.833	.917	.780	.000	.808	.519	.956	.765	.000	.953	.841	.875	.658	.000	.784	.957

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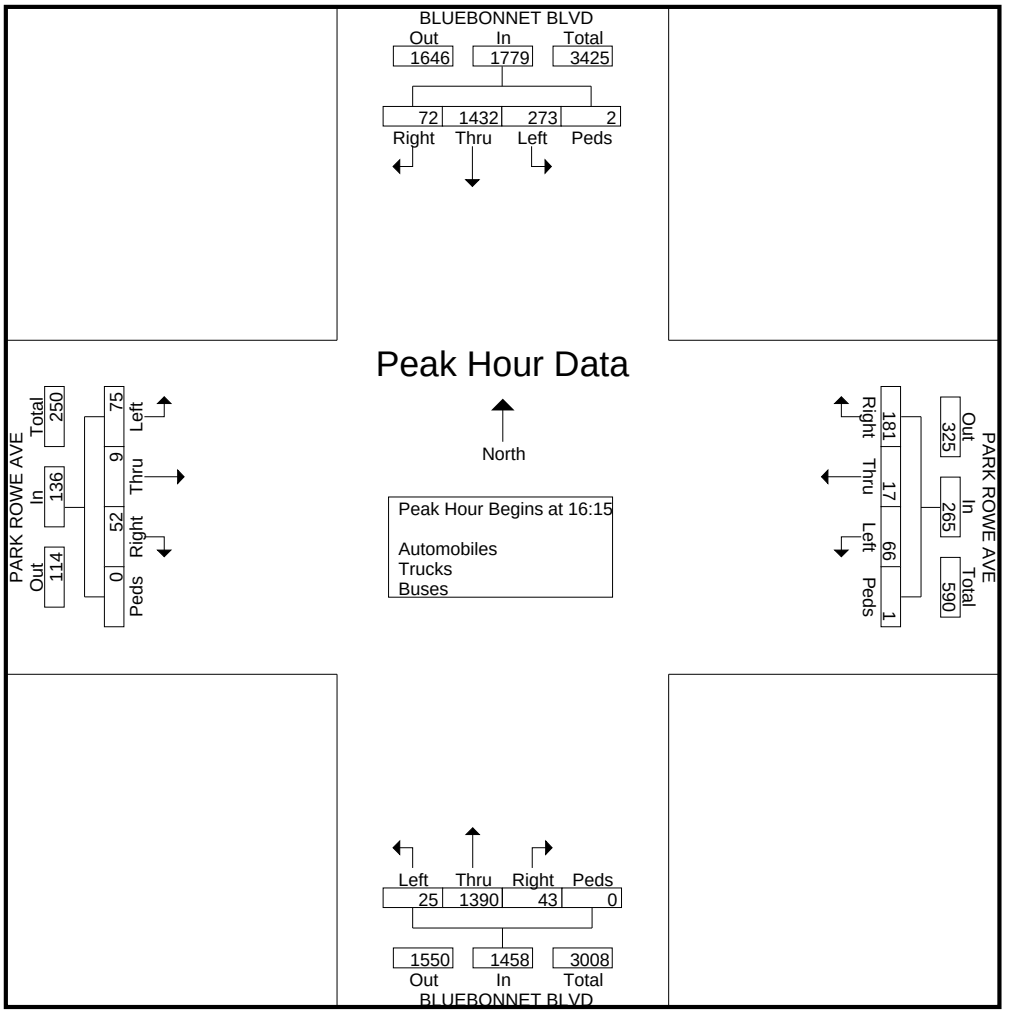
BLUEBONNET BLVD @ PARK ROWE AVE
BATON ROUGE, LOUISIANA

File Name : 15076-2 BLUEBONNET AVE @ PARK ROWE
Site Code : 15076-2 AM2
Start Date : 10/8/2015
Page No : 5

	BLUEBONNET BLVD Southbound					PARK ROWE AVE Westbound					BLUEBONNET BLVD Northbound					PARK ROWE AVE Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 14:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:15																					
16:15	64	360	17	0	441	17	6	44	0	67	7	**386**	9	0	**402**	19	2	13	0	34	**944**
16:30	71	354	15	**1**	441	**21**	**7**	**54**	**1**	**83**	7	345	9	0	361	16	1	**17**	0	34	919
16:45	59	321	16	1	397	18	3	39	0	60	**8**	359	**16**	0	383	**23**	2	8	0	33	873
17:00	**79**	**397**	**24**	0	**500**	10	1	44	0	55	3	300	9	0	312	17	**4**	14	0	**35**	902
Total Volume	273	1432	72	2	1779	66	17	181	1	265	25	1390	43	0	1458	75	9	52	0	136	3638
% App. Total	15.3	80.5	4	0.1		24.9	6.4	68.3	0.4		1.7	95.3	2.9	0		55.1	6.6	38.2	0		
PHF	.864	.902	.750	.500	.890	.786	.607	.838	.250	.798	.781	.900	.672	.000	.907	.815	.563	.765	.000	.971	.963



File Name: G:\DATA\2015\Private\15076\TMC's Thursday\15076-2 BLUEBONNET AVE @ PARK ROWE.ppd
Start Date: 10/8/2015
Start Time: 7:00:00 AM
Site Code: 15076-2 AM2
Comment 1: BLUEBONNET BLVD @ PARK ROWE AVE
Comment 2: BATON ROUGE, LOUISIANA
Comment 3:
Comment 4:

HGV % by Movement

	BLUEBONNET BLVD				PARK ROWE AVE				BLUEBONNET BLVD				PARK ROWE AVE			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00	8%	7%	0%		0%	0%	0%		20%	2%	0%		0%	0%	0%	
07:15	5%	2%	7%		0%	#DIV/0!	0%		0%	1%	0%		0%	0%	20%	
07:30	1%	2%	0%		0%	#DIV/0!	8%		0%	1%	0%		0%	0%	0%	
07:45	3%	2%	0%		25%	33%	5%		0%	0%	0%		14%	0%	0%	
08:00	3%	2%	0%		17%	#DIV/0!	0%		0%	1%	0%		7%	0%	13%	
08:15	1%	3%	0%		14%	#DIV/0!	0%		0%	2%	9%		0%	33%	0%	
08:30	3%	3%	0%		33%	0%	16%		0%	2%	0%		0%	0%	0%	
08:45	8%	4%	0%		33%	0%	5%		0%	1%	10%		6%	0%	0%	
09:00	4%	5%	8%		0%	0%	8%		0%	2%	0%		0%	0%	0%	
09:15	9%	3%	0%		0%	#DIV/0!	8%		0%	3%	0%		0%	0%	0%	
09:30	0%	5%	0%		0%	33%	0%		0%	2%	14%		5%	33%	0%	
09:45	0%	6%	9%		0%	0%	0%		0%	2%	8%		0%	100%	0%	
10:00																
10:15																
10:30																
10:45																
11:00																
11:15																
11:30																
11:45																
12:00	4%	2%	0%		0%	0%	3%		0%	2%	0%		0%	0%	0%	
12:15	5%	4%	0%		0%	25%	6%		0%	3%	0%		0%	0%	0%	
12:30	1%	5%	0%		0%	0%	3%		8%	2%	0%		0%	0%	7%	
12:45	0%	6%	0%		0%	0%	2%		0%	2%	0%		0%	0%	0%	
13:00	1%	2%	4%		7%	0%	2%		0%	2%	0%		3%	0%	0%	
13:15	1%	3%	6%		0%	0%	3%		0%	3%	0%		0%	0%	0%	
13:30	0%	2%	0%		0%	0%	0%		0%	2%	0%		3%	0%	0%	
13:45	2%	5%	6%		13%	0%	0%		0%	2%	0%		0%	0%	0%	
14:00																
14:15																
14:30																
14:45																
15:00	3%	2%	0%		0%	0%	0%		0%	2%	0%		0%	0%	0%	
15:15	2%	2%	0%		0%	33%	0%		0%	3%	0%		0%	0%	0%	
15:30	3%	3%	0%		0%	#DIV/0!	2%		0%	3%	0%		0%	0%	0%	
15:45	6%	2%	0%		0%	0%	0%		0%	2%	0%		0%	0%	0%	
16:00	0%	3%	0%		0%	0%	2%		0%	1%	11%		0%	0%	0%	
16:15	2%	2%	0%		0%	0%	0%		0%	2%	0%		0%	0%	0%	
16:30	0%	1%	0%		0%	0%	4%		0%	1%	0%		0%	0%	0%	
16:45	0%	2%	0%		0%	0%	0%		0%	1%	0%		0%	0%	0%	
17:00	1%	1%	0%		0%	0%	2%		0%	1%	0%		6%	0%	0%	
17:15	0%	2%	0%		0%	0%	0%		0%	1%	0%		0%	17%	0%	
17:30	0%	1%	5%		0%	0%	0%		20%	3%	0%		0%	0%	0%	
17:45	1%	2%	0%		0%	0%	0%		0%	2%	0%		0%	0%	0%	

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BLUEBONNET BLVD @ PARK ROWE AVE
BATON ROUGE, LOUISIANA

File Name : 15076-2 SAT BLUEBONNET BLVD @ PARK ROWE
Site Code : 15076-2 SAT
Start Date : 10/10/2011
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	BLUEBONNET BLVD Southbound				PARK ROWE AVE Westbound				BLUEBONNET BLVD Northbound				PARK ROWE AVE Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	UTRNS	Left	Thru	Right	Peds	Int. Total
12:30	61	310	17	1	11	3	37	0	7	358	23	2	24	5	14	0	873
12:45	78	323	23	2	6	5	45	0	5	350	12	2	31	8	14	0	904
Total	139	633	40	3	17	8	82	0	12	708	35	4	55	13	28	0	1777
13:00	75	284	19	0	11	2	28	0	11	323	13	4	21	3	10	0	804
13:15	69	304	21	0	11	3	32	0	7	291	7	2	30	7	12	0	796
13:30	56	279	16	0	12	2	44	0	12	362	9	4	27	5	10	0	838
13:45	61	294	19	0	13	5	46	0	10	371	12	2	17	8	12	0	870
Total	261	1161	75	0	47	12	150	0	40	1347	41	12	95	23	44	0	3308
14:00	44	289	21	0	10	9	38	0	10	302	15	1	24	6	11	0	780
14:15	63	312	13	0	11	6	27	0	6	313	13	0	25	8	14	0	811
Grand Total	507	2395	149	3	85	35	297	0	68	2670	104	17	199	50	97	0	6676
Apprch %	16.6	78.4	4.9	0.1	20.4	8.4	71.2	0	2.4	93.4	3.6	0.6	57.5	14.5	28	0	
Total %	7.6	35.9	2.2	0	1.3	0.5	4.4	0	1	40	1.6	0.3	3	0.7	1.5	0	
Automobiles	504	2361	149	3	85	34	295	0	68	2637	104	17	199	49	97	0	6602
% Automobiles	99.4	98.6	100	100	100	97.1	99.3	0	100	98.8	100	100	100	98	100	0	98.9
Trucks	2	27	0	0	0	0	1	0	0	25	0	0	0	0	0	0	55
% Trucks	0.4	1.1	0	0	0	0	0.3	0	0	0.9	0	0	0	0	0	0	0.8
Buses	1	7	0	0	0	1	1	0	0	8	0	0	0	1	0	0	19
% Buses	0.2	0.3	0	0	0	2.9	0.3	0	0	0.3	0	0	0	2	0	0	0.3

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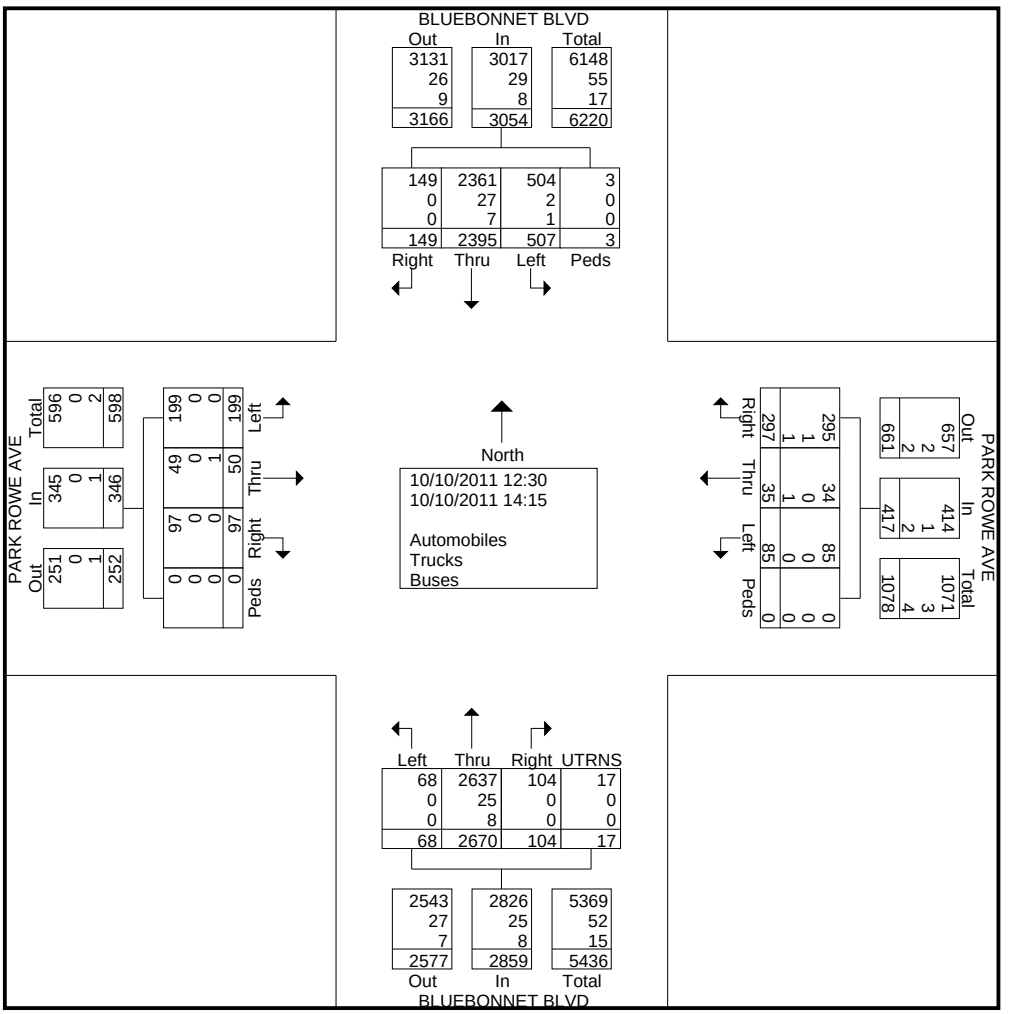
BLUEBONNET BLVD @ PARK ROWE AVE
BATON ROUGE, LOUISIANA

File Name : 15076-2 SAT BLUEBONNET BLVD @ PARK ROWE
Site Code : 15076-2 SAT
Start Date : 10/10/2011
Page No : 2



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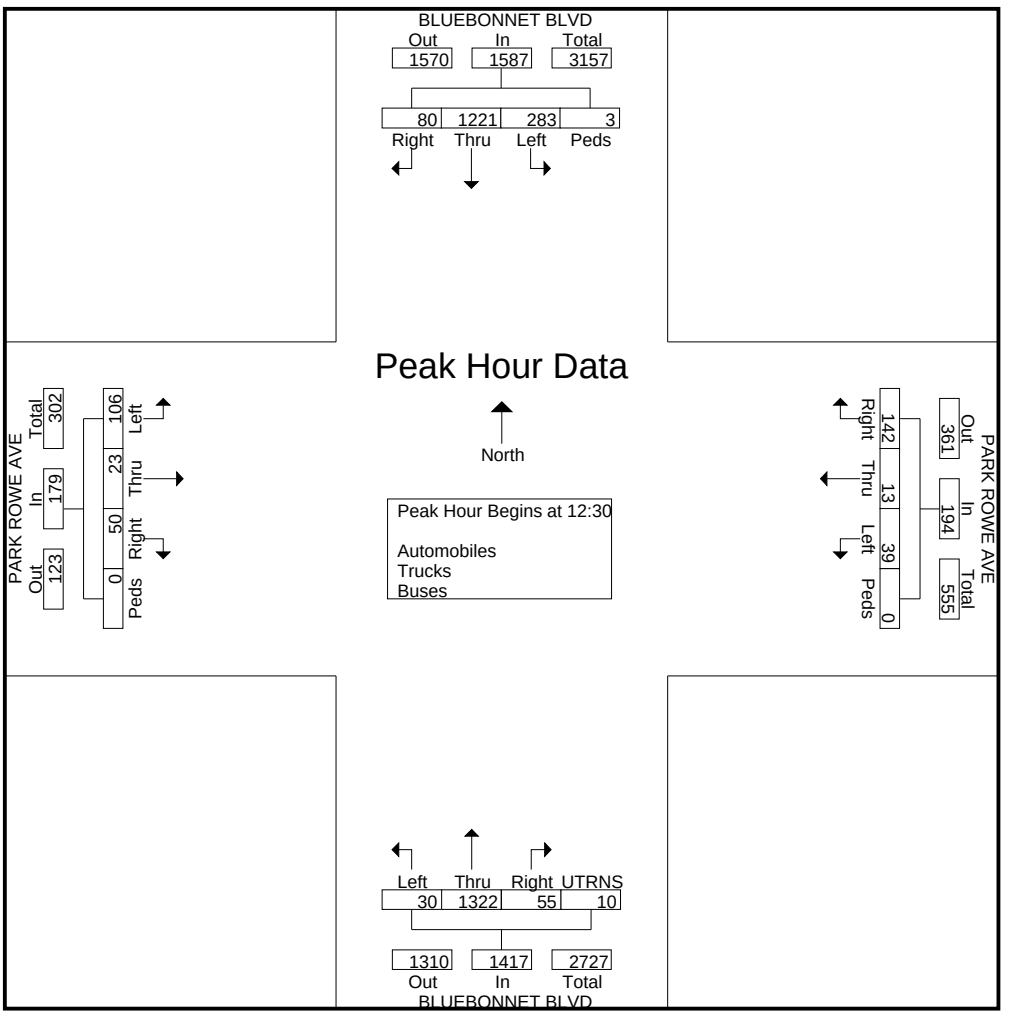
BLUEBONNET BLVD @ PARK ROWE AVE
BATON ROUGE, LOUISIANA

File Name : 15076-2 SAT BLUEBONNET BLVD @ PARK ROWE
Site Code : 15076-2 SAT
Start Date : 10/10/2011
Page No : 3

	BLUEBONNET BLVD Southbound					PARK ROWE AVE Westbound					BLUEBONNET BLVD Northbound					PARK ROWE AVE Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	UTRNS	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:30 to 14:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30																					
12:30	61	310	17	1	389	**11**	3	37	0	51	7	**358**	**23**	2	**390**	24	5	**14**	0	43	873
12:45	**78**	**323**	**23**	**2**	**426**	6	**5**	**45**	0	**56**	5	350	12	2	369	**31**	**8**	14	0	**53**	**904**
13:00	75	284	19	0	378	11	2	28	0	41	**11**	323	13	**4**	351	21	3	10	0	34	804
13:15	69	304	21	0	394	11	3	32	0	46	7	291	7	2	307	30	7	12	0	49	796
Total Volume	283	1221	80	3	1587	39	13	142	0	194	30	1322	55	10	1417	106	23	50	0	179	3377
% App. Total	17.8	76.9	5	0.2		20.1	6.7	73.2	0		2.1	93.3	3.9	0.7		59.2	12.8	27.9	0		
PHF	.907	.945	.870	.375	.931	.886	.650	.789	.000	.866	.682	.923	.598	.625	.908	.855	.719	.893	.000	.844	.934



File Name: G:\DATA\2015\Private\15076\TMC'S Saturday\15076-2 SAT BLUEBONNET BLVD @ PARK ROWE.ppd
Start Date: 10/10/2011
Start Time: 12:30:00 PM
Site Code: 15076-2 SAT
Comment 1: BLUEBONNET BLVD @ PARK ROWE AVE
Comment 2: BATON ROUGE, LOUISIANA
Comment 3:
Comment 4:

HGV % by Movement

	BLUEBONNET BLVD				PARK ROWE AVE				BLUEBONNET BLVD				PARK ROWE AVE			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	UTRNS	Left	Thru	Right	Peds
12:30	2%	1%	0%		0%	0%	3%		0%	2%	0%	0%	0%	0%	0%	
12:45	1%	2%	0%		0%	0%	0%		0%	1%	0%	0%	0%	0%	0%	
13:00	0%	2%	0%		0%	0%	0%		0%	1%	0%	0%	0%	0%	0%	
13:15	0%	1%	0%		0%	0%	0%		0%	1%	0%	0%	0%	0%	0%	
13:30	0%	1%	0%		0%	0%	0%		0%	1%	0%	0%	0%	0%	0%	
13:45	0%	2%	0%		0%	0%	0%		0%	1%	0%	0%	0%	0%	0%	
14:00	2%	1%	0%		0%	11%	3%		0%	2%	0%	0%	0%	0%	0%	
14:15	0%	2%	0%		0%	0%	0%		0%	1%	0%	#DIV/0!	0%	13%	0%	

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BLUEBONNET BLVD @ ANSELMO LN
BATON ROUGE, LOUISIANA

File Name : 15076-3 SAT BLUEBONNET BLVD @ ANSELMO LN
Site Code : 15076-3
Start Date : 10/10/2015

Groups Printed- Automobiles - Trucks - Buses

	BLUEBONNET BLVD Southbound				WORLD MINISTRY AVE Westbound				BLUEBONNET BLVD Northbound				ANSELMO LN Eastbound				
Start Time	Left	Thru	Right	UTRNS	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
12:30	0	362	36	3	0	0	1	0	8	407	0	0	63	0	21	0	901
12:45	1	386	37	0	0	0	2	0	6	405	0	0	45	0	30	0	912
Total	1	748	73	3	0	0	3	0	14	812	0	0	108	0	51	0	1813
13:00	0	367	25	2	0	0	0	1	6	360	0	0	46	0	20	0	827
13:15	0	371	30	3	0	0	0	0	11	330	0	0	47	0	9	0	801
13:30	0	380	27	2	0	0	0	0	13	404	0	0	36	1	17	1	881
13:45	0	388	28	3	1	0	0	0	9	389	0	0	15	0	10	0	843
Total	0	1506	110	10	1	0	0	1	39	1483	0	0	144	1	56	1	3352
14:00	1	363	26	0	0	0	1	0	15	353	0	0	32	0	13	0	804
14:15	0	375	30	2	0	0	0	0	6	331	0	0	19	0	13	1	777
Grand Total	2	2992	239	15	1	0	4	1	74	2979	0	0	303	1	133	2	6746
Apprch %	0.1	92.1	7.4	0.5	16.7	0	66.7	16.7	2.4	97.6	0	0	69	0.2	30.3	0.5	
Total %	0	44.4	3.5	0.2	0	0	0.1	0	1.1	44.2	0	0	4.5	0	2	0	
Automobiles	2	2957	235	15	1	0	3	1	74	2951	0	0	302	1	133	2	6677
% Automobiles	100	98.8	98.3	100	100	0	75	100	100	99.1	0	0	99.7	100	100	100	99
Trucks	0	28	4	0	0	0	1	0	0	22	0	0	1	0	0	0	56
% Trucks	0	0.9	1.7	0	0	0	25	0	0	0.7	0	0	0.3	0	0	0	0.8
Buses	0	7	0	0	0	0	0	0	0	6	0	0	0	0	0	0	13
% Buses	0	0.2	0	0	0	0	0	0	0	0.2	0	0	0	0	0	0	0.2

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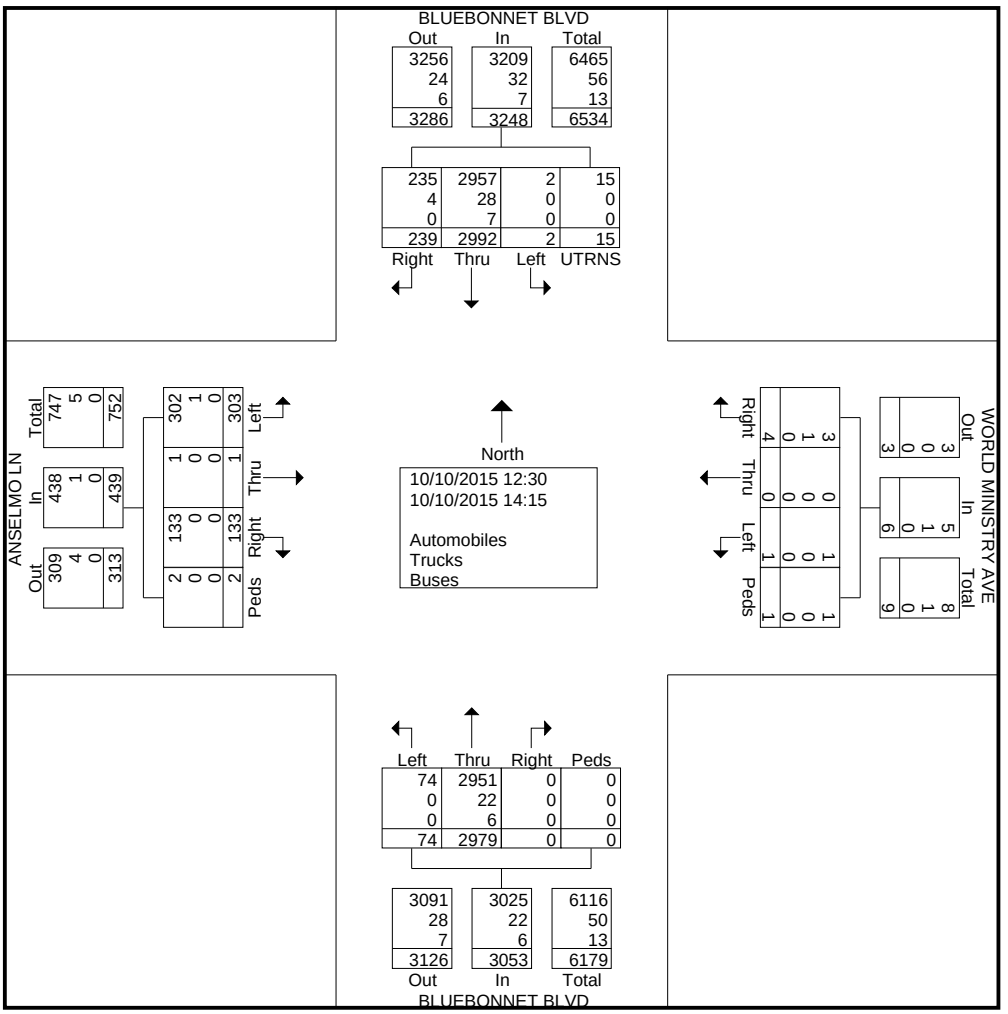
BLUEBONNET BLVD @ ANSELMO LN
BATON ROUGE, LOUISIANA

File Name : 15076-3 SAT BLUEBONNET BLVD @ ANSELMO LN
Site Code : 15076-3
Start Date : 10/10/2015
Page No : 2



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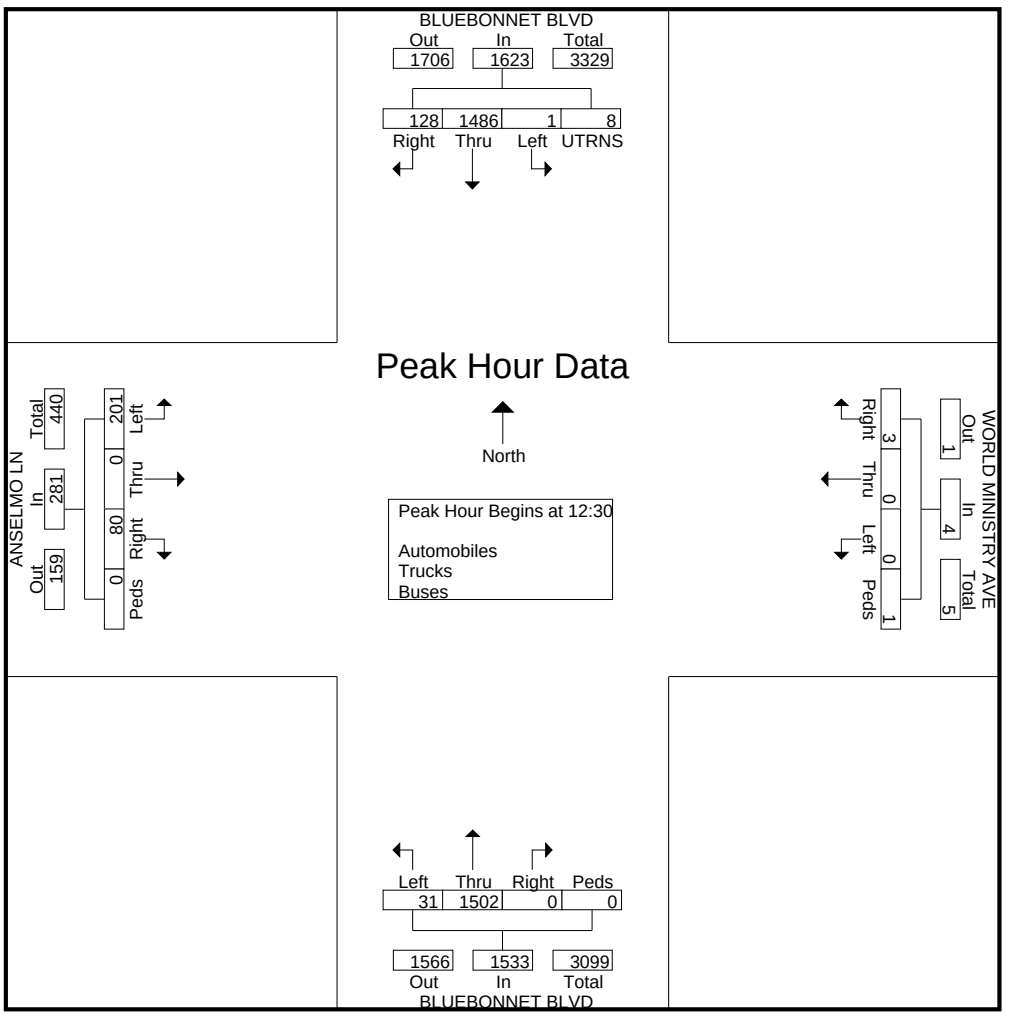
BLUEBONNET BLVD @ ANSELMO LN
BATON ROUGE, LOUISIANA

File Name : 15076-3 SAT BLUEBONNET BLVD @ ANSELMO LN
Site Code : 15076-3
Start Date : 10/10/2015
Page No : 3

	BLUEBONNET BLVD Southbound					WORLD MINISTRY AVE Westbound					BLUEBONNET BLVD Northbound					ANSELMO LN Eastbound					
Start Time		Thru	Right	UTRNS	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:30 to 14:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30																					
12:30	0	362	36	**3**	401	0	0	1	0	1	8	**407**	0	0	**415**	**63**	0	21	0	**84**	901
12:45	**1**	**386**	**37**	0	**424**	0	0	**2**	0	**2**	6	405	0	0	411	45	0	**30**	0	75	**912**
13:00	0	367	25	2	394	0	0	0	**1**	1	6	360	0	0	366	46	0	20	0	66	827
13:15	0	371	30	3	404	0	0	0	0	0	**11**	330	0	0	341	47	0	9	0	56	801
Total Volume	1	1486	128	8	1623	0	0	3	1	4	31	1502	0	0	1533	201	0	80	0	281	3441
% App. Total	0.1	91.6	7.9	0.5		0	0	75	25		2	98	0	0		71.5	0	28.5	0		
PHF	.250	.962	.865	.667	.957	.000	.000	.375	.250	.500	.705	.923	.000	.000	.923	.798	.000	.667	.000	.836	.943



File Name: G:\DATA\2015\Private\15076\TMC'S Saturday\15076-3 SAT BLUEBONNET BLVD @ ANSELMO LN.ppd
Start Date: 10/10/2015
Start Time: 12:30:00 PM
Site Code: 15076-3
Comment 1: BLUEBONNET BLVD @ ANSELMO LN
Comment 2: BATON ROUGE, LOUISIANA
Comment 3:
Comment 4:

HGV % by Movement

	BLUEBONNET BLVD				WORLD MINISTRY AVE				BLUEBONNET BLVD				ANSELMO LN			
Start Time	Left	Thru	Right	UTRNS	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
12:30	#DIV/0!	1%	3%	0%	#DIV/0!	#DIV/0!	100%		0%	1%	#DIV/0!		0%	#DIV/0!	0%	
12:45	0%	2%	0%	#DIV/0!	#DIV/0!	#DIV/0!	0%		0%	1%	#DIV/0!		0%	#DIV/0!	0%	
13:00	#DIV/0!	1%	0%	0%	#DIV/0!	#DIV/0!	#DIV/0!		0%	1%	#DIV/0!		0%	#DIV/0!	0%	
13:15	#DIV/0!	1%	3%	0%	#DIV/0!	#DIV/0!	#DIV/0!		0%	1%	#DIV/0!		0%	#DIV/0!	0%	
13:30	#DIV/0!	1%	0%	0%	#DIV/0!	#DIV/0!	#DIV/0!		0%	1%	#DIV/0!		0%	0%	0%	
13:45	#DIV/0!	1%	4%	0%	0%	#DIV/0!	#DIV/0!		0%	0%	#DIV/0!		0%	#DIV/0!	0%	
14:00	0%	1%	0%	#DIV/0!	#DIV/0!	#DIV/0!	0%		0%	2%	#DIV/0!		3%	#DIV/0!	0%	
14:15	#DIV/0!	2%	3%	0%	#DIV/0!	#DIV/0!	#DIV/0!		0%	1%	#DIV/0!		0%	#DIV/0!	0%	

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Bluebonnet Blvd @ S Mall of Louisiana
Baton Rouge, Louisiana

File Name : 15076-4 BLUEBONNET @ MALL OF LA
Site Code : 15076-4
Start Date : 10/8/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	BLUEBONNET BLVD Southbound			MALL OF LA Westbound			BLUEBONNET BLVD Northbound			
Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	Int. Total
07:00	2	320	0	27	3	0	275	14	0	641
07:15	5	402	0	54	7	0	355	18	0	841
07:30	4	469	0	57	5	0	401	17	0	953
07:45	4	471	0	69	11	0	426	34	0	1015
Total	15	1662	0	207	26	0	1457	83	0	3450
08:00	5	404	0	71	4	0	433	21	0	938
08:15	1	388	0	44	0	0	334	26	0	793
08:30	5	381	0	35	1	0	346	18	0	786
08:45	5	364	0	25	5	0	298	32	0	729
Total	16	1537	0	175	10	0	1411	97	0	3246
09:00	5	315	0	34	6	1	296	34	0	691
09:15	7	328	0	31	8	0	303	32	0	709
09:30	11	297	0	40	7	0	294	43	0	692
09:45	6	303	0	29	3	0	313	59	0	713
Total	29	1243	0	134	24	1	1206	168	0	2805
BREAK										
12:00	17	346	0	76	25	0	307	101	0	872
12:15	15	335	0	88	22	0	318	112	0	890
12:30	13	342	0	81	21	0	349	92	0	898
12:45	7	408	0	88	29	0	357	91	0	980
Total	52	1431	0	333	97	0	1331	396	0	3640
13:00	11	359	0	89	28	0	365	90	0	942
13:15	10	357	0	70	23	0	339	90	0	889
13:30	22	317	0	93	22	0	319	90	0	863
13:45	12	329	0	83	24	0	378	82	0	908
Total	55	1362	0	335	97	0	1401	352	0	3602
BREAK										
14:45	0	0	0	1	0	0	0	0	0	1
Total	0	0	0	1	0	0	0	0	0	1
15:00	11	342	0	91	23	0	391	89	0	947
15:15	10	317	0	82	18	0	418	72	0	917
15:30	10	304	0	80	20	0	399	87	0	900
15:45	23	359	0	87	15	0	387	84	0	955
Total	54	1322	0	340	76	0	1595	332	0	3719
16:00	18	338	0	56	17	0	436	95	0	960
16:15	17	358	0	76	18	0	415	96	0	980
16:30	23	345	0	65	19	0	435	90	0	977
16:45	24	330	0	84	23	0	430	97	0	988
Total	82	1371	0	281	77	0	1716	378	0	3905
17:00	23	400	0	79	19	0	430	94	0	1045
17:15	14	415	0	77	13	0	435	126	0	1080
17:30	16	372	0	72	18	0	415	110	0	1003
17:45	14	308	0	77	19	0	382	99	0	899
Total	67	1495	0	305	69	0	1662	429	0	4027
Grand Total	370	11423	0	2111	476	1	11779	2235	0	28395
Apprch %	3.1	96.9	0	81.6	18.4	0	84.1	15.9	0	
Total %	1.3	40.2	0	7.4	1.7	0	41.5	7.9	0	
Automobiles	333	11082	0	2100	473	1	11539	2187	0	27715
% Automobiles	90	97	0	99.5	99.4	100	98	97.9	0	97.6
Trucks	4	279	0	10	3	0	210	15	0	521
% Trucks	1.1	2.4	0	0.5	0.6	0	1.8	0.7	0	1.8

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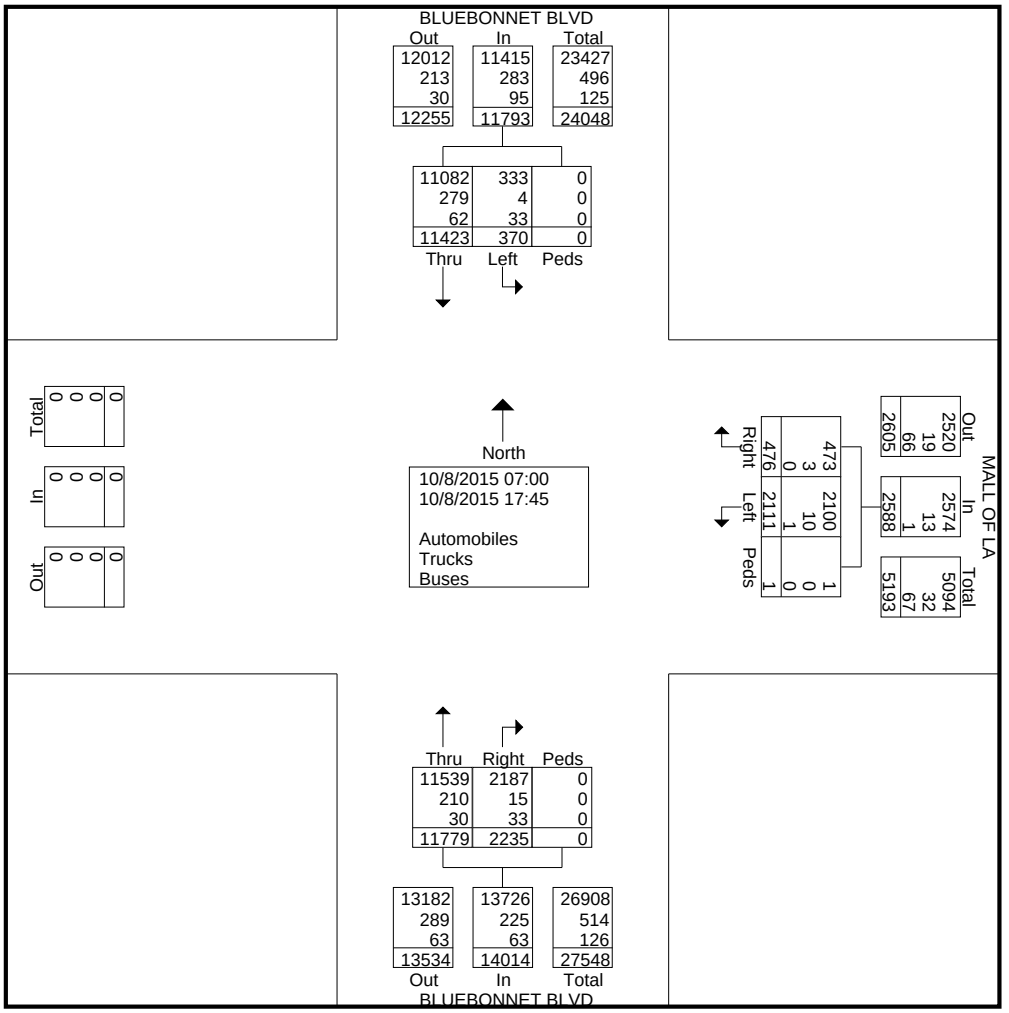
Bluebonnet Blvd @ S Mall of Louisiana
Baton Rouge, Louisiana

File Name : 15076-4 BLUEBONNET @ MALL OF LA
Site Code : 15076-4
Start Date : 10/8/2015
Page No : 2

Groups Printed- Automobiles - Trucks - Buses

	BLUEBONNET BLVD Southbound			MALL OF LA Westbound			BLUEBONNET BLVD Northbound			
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	Int. Total
Buses	33	62	0	1	0	0	30	33	0	159
% Buses	8.9	0.5	0	0	0	0	0.3	1.5	0	0.6



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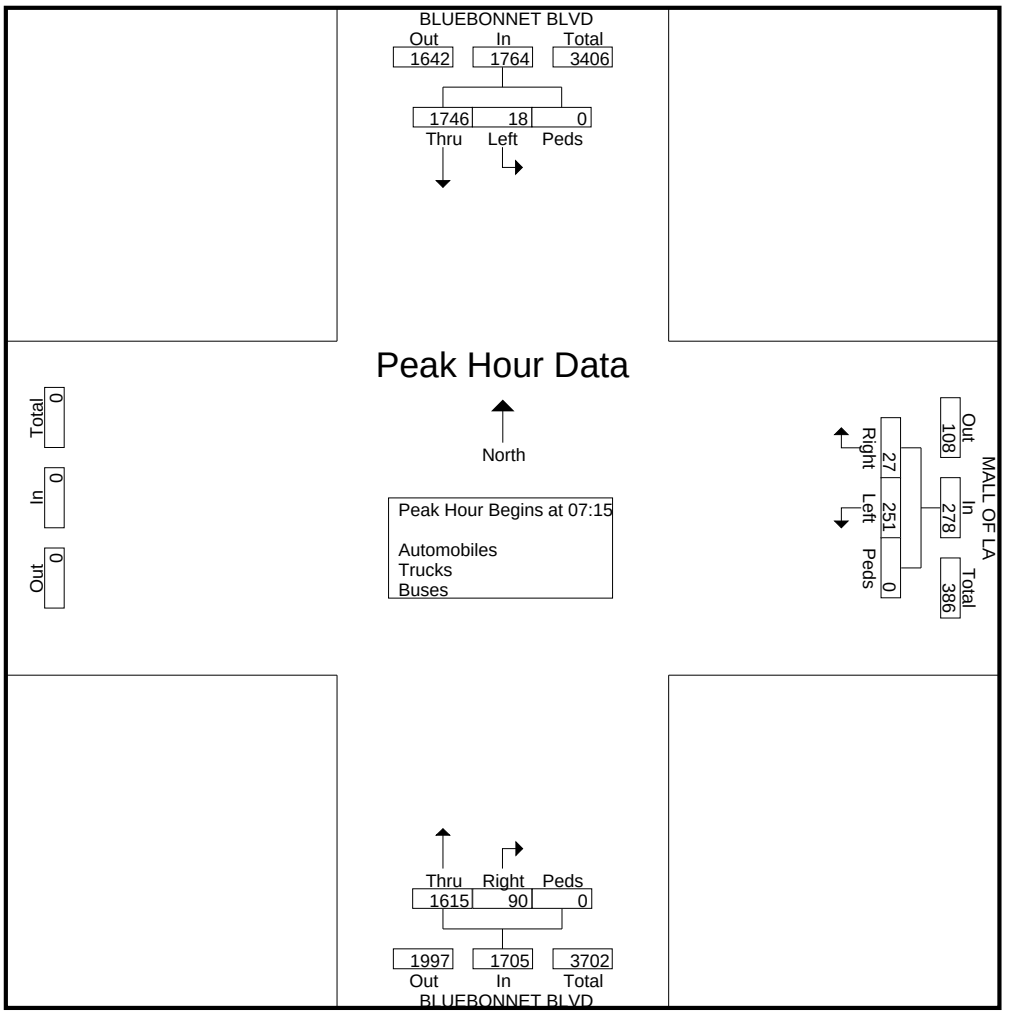
Bluebonnet Blvd @ S Mall of Louisiana
Baton Rouge, Louisiana

File Name : 15076-4 BLUEBONNET @ MALL OF LA
Site Code : 15076-4
Start Date : 10/8/2015
Page No : 3

	BLUEBONNET BLVD Southbound				MALL OF LA Westbound				BLUEBONNET BLVD Northbound				
Start Time	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15													
07:15	**5**	402	0	407	54	7	0	61	355	18	0	373	841
07:30	4	469	0	473	57	5	0	62	401	17	0	418	953
07:45	4	**471**	0	**475**	69	**11**	0	**80**	426	**34**	0	**460**	**1015**
08:00	5	404	0	409	**71**	4	0	75	**433**	21	0	454	938
Total Volume	18	1746	0	1764	251	27	0	278	1615	90	0	1705	3747
% App. Total	1	99	0		90.3	9.7	0		94.7	5.3	0		
PHF	.900	.927	.000	.928	.884	.614	.000	.869	.932	.662	.000	.927	.923



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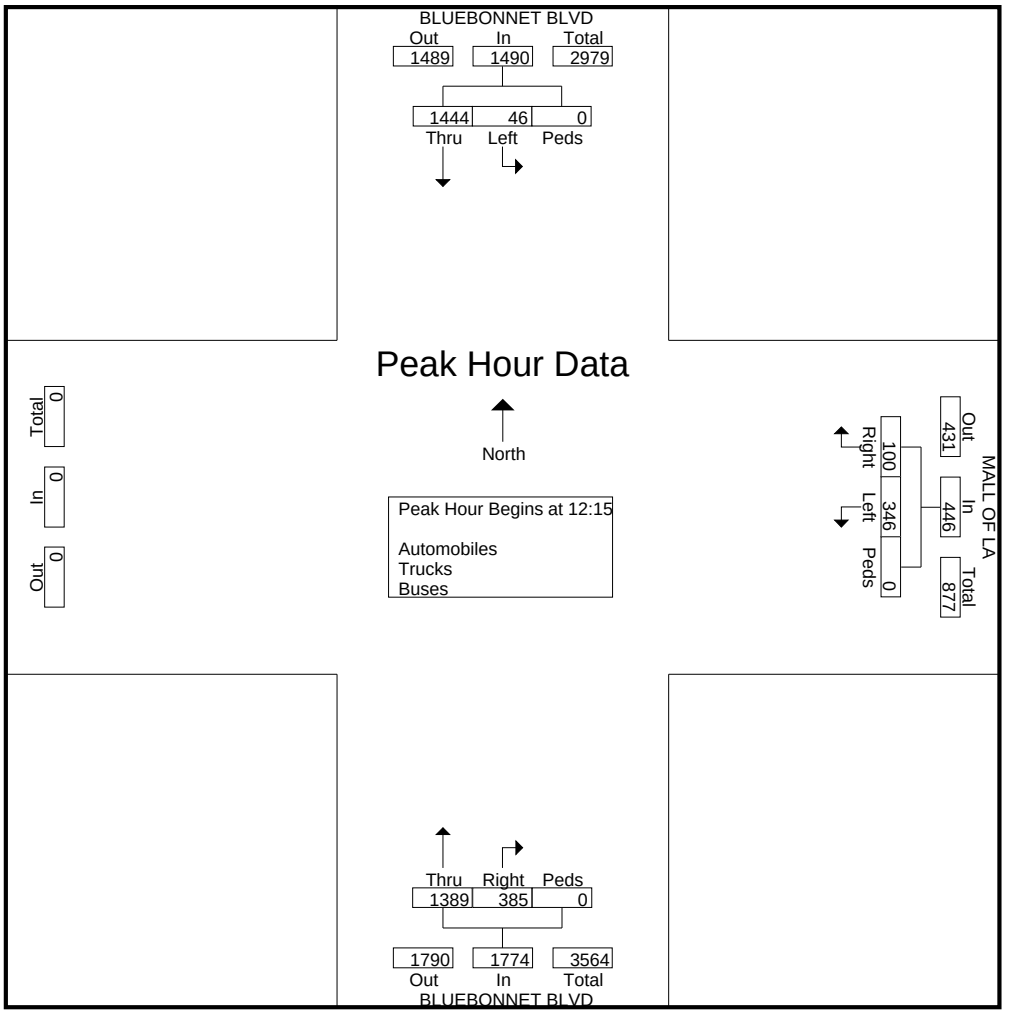
Bluebonnet Blvd @ S Mall of Louisiana
Baton Rouge, Louisiana

File Name : 15076-4 BLUEBONNET @ MALL OF LA
Site Code : 15076-4
Start Date : 10/8/2015
Page No : 4

	BLUEBONNET BLVD Southbound				MALL OF LA Westbound				BLUEBONNET BLVD Northbound				
Start Time	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:15													
12:15	**15**	335	0	350	88	22	0	110	318	**112**	0	430	890
12:30	13	342	0	355	81	21	0	102	349	92	0	441	898
12:45	7	**408**	0	**415**	88	**29**	0	**117**	357	91	0	448	**980**
13:00	11	359	0	370	**89**	28	0	117	**365**	90	0	**455**	942
Total Volume	46	1444	0	1490	346	100	0	446	1389	385	0	1774	3710
% App. Total	3.1	96.9	0		77.6	22.4	0		78.3	21.7	0		
PHF	.767	.885	.000	.898	.972	.862	.000	.953	.951	.859	.000	.975	.946



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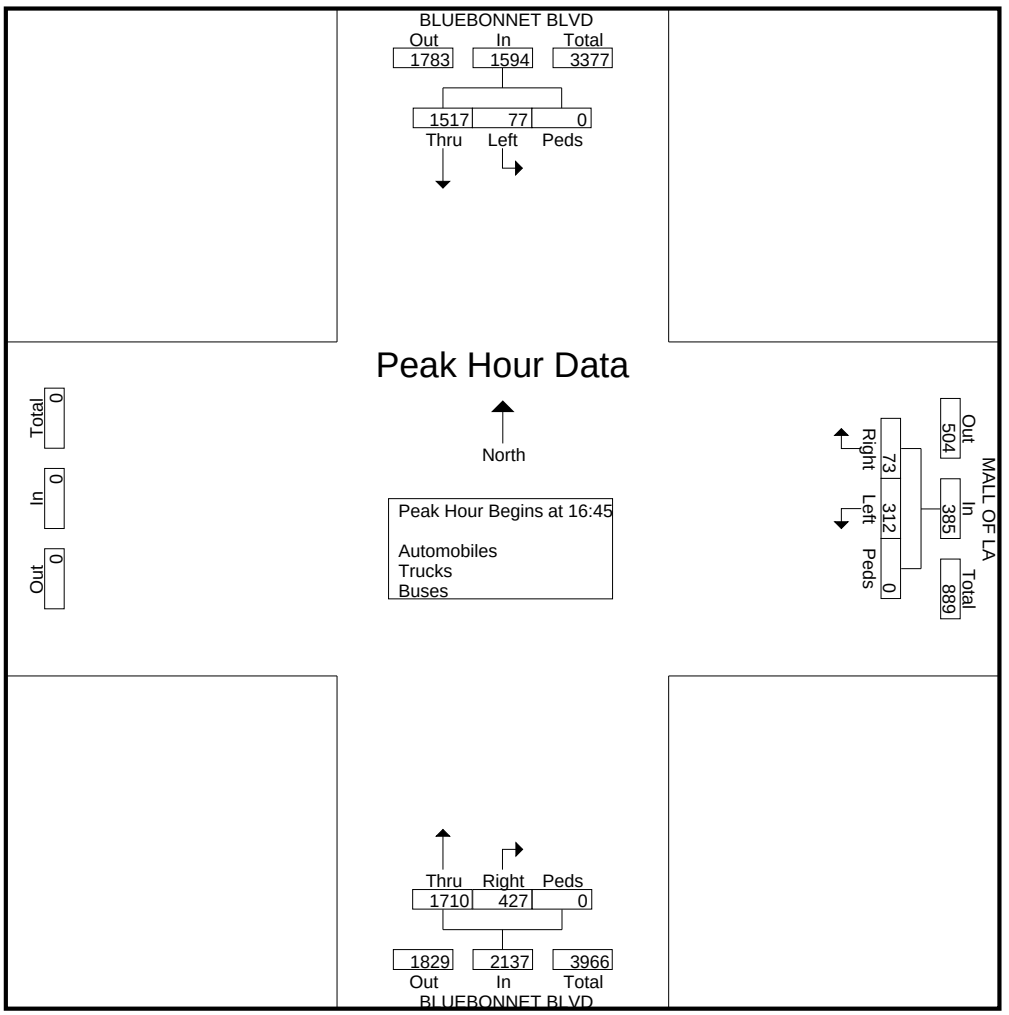
Bluebonnet Blvd @ S Mall of Louisiana
Baton Rouge, Louisiana

File Name : 15076-4 BLUEBONNET @ MALL OF LA
Site Code : 15076-4
Start Date : 10/8/2015
Page No : 5

	BLUEBONNET BLVD Southbound				MALL OF LA Westbound				BLUEBONNET BLVD Northbound				
Start Time	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 14:00 to 17:45 - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 16:45													
16:45	**24**	330	0	354	**84**	**23**	0	**107**	430	97	0	527	988
17:00	23	400	0	423	79	19	0	98	430	94	0	524	1045
17:15	14	**415**	0	**429**	77	13	0	90	**435**	**126**	0	**561**	**1080**
17:30	16	372	0	388	72	18	0	90	415	110	0	525	1003
Total Volume	77	1517	0	1594	312	73	0	385	1710	427	0	2137	4116
% App. Total	4.8	95.2	0		81	19	0		80	20	0		
PHF	.802	.914	.000	.929	.929	.793	.000	.900	.983	.847	.000	.952	.953



File Name: G:\DATA\2015\Private\15076\TMC's Thursday\15076-4 BLUEBONNET @ MALL OF LA.ppd
Start Date: 10/8/2015
Start Time: 7:00:00 AM
Site Code: 15076-4
Comment 1: Bluebonnet Blvd @ S Mall of Louisiana
Comment 2: Baton Rouge, Louisiana
Comment 3:
Comment 4:

HGV % by Movement

	BLUEBONNET BLVD			MALL OF LA			BLUEBONNET BLVD		
Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds
07:00	50%	5%		4%	0%		2%	7%	
07:15	20%	3%		2%	14%		3%	6%	
07:30	100%	1%		0%	20%		1%	12%	
07:45	0%	2%		0%	0%		1%	0%	
08:00	40%	2%		0%	0%		2%	5%	
08:15	0%	2%		2%	#DIV/0!		3%	4%	
08:30	60%	5%		0%	0%		2%	17%	
08:45	0%	4%		0%	0%		3%	0%	
09:00	20%	4%		3%	0%		2%	0%	
09:15	0%	5%		0%	0%		3%	9%	
09:30	27%	5%		0%	0%		3%	2%	
09:45	0%	5%		0%	0%		1%	5%	
10:00									
10:15									
10:30									
10:45									
11:00									
11:15									
11:30									
11:45									
12:00	12%	3%		0%	0%		2%	1%	
12:15	7%	5%		2%	0%		3%	2%	
12:30	8%	3%		1%	0%		3%	2%	
12:45	0%	5%		1%	0%		3%	3%	
13:00	9%	2%		1%	0%		3%	3%	
13:15	0%	3%		1%	4%		2%	1%	
13:30	9%	1%		1%	0%		3%	2%	
13:45	8%	5%		0%	0%		1%	2%	
14:00									
14:15									
14:30									
14:45									
15:00	9%	2%		0%	0%		2%	1%	
15:15	0%	2%		0%	0%		1%	3%	
15:30	10%	3%		0%	0%		4%	1%	
15:45	9%	3%		0%	0%		2%	1%	
16:00	6%	4%		0%	0%		1%	0%	
16:15	0%	3%		0%	0%		2%	3%	
16:30	9%	1%		0%	0%		1%	2%	
16:45	4%	2%		0%	0%		1%	1%	
17:00	13%	2%		0%	0%		1%	0%	
17:15	0%	1%		0%	0%		1%	1%	
17:30	19%	1%		0%	0%		1%	4%	
17:45	0%	1%		0%	0%		3%	0%	

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BLUEBONNET BLVD @ MALL OF LOUISIANA
BATON ROUGE, LOUISIANA

File Name : 15076-4 SAT BLUEBONNET @ MALL OF LA
Site Code : 15076-5
Start Date : 10/10/2015

Groups Printed- Automobiles - Trucks - Buses

	BLUEBONNET BLVD Southbound			MALL OF LOUISIANA Westbound			BLUEBONNET BLVD Northbound			
Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	Int. Total
12:30	24	297	0	98	28	0	332	127	1	907
12:45	15	340	0	82	24	0	330	134	0	925
Total	39	637	0	180	52	0	662	261	1	1832
13:00	27	318	0	86	25	0	265	136	0	857
13:15	11	308	1	91	38	0	291	110	0	850
13:30	12	328	0	93	36	0	331	111	0	911
13:45	15	304	0	88	18	0	300	122	0	847
Total	65	1258	1	358	117	0	1187	479	0	3465
14:00	18	301	0	96	34	0	270	108	2	829
14:15	14	315	0	94	26	0	244	97	0	790
Grand Total	136	2511	1	728	229	0	2363	945	3	6916
Apprch %	5.1	94.8	0	76.1	23.9	0	71.4	28.5	0.1	
Total %	2	36.3	0	10.5	3.3	0	34.2	13.7	0	
Automobiles	129	2472	1	727	228	0	2338	937	3	6835
% Automobiles	94.9	98.4	100	99.9	99.6	0	98.9	99.2	100	98.8
Trucks	0	29	0	1	1	0	24	1	0	56
% Trucks	0	1.2	0	0.1	0.4	0	1	0.1	0	0.8
Buses	7	10	0	0	0	0	1	7	0	25
% Buses	5.1	0.4	0	0	0	0	0	0.7	0	0.4

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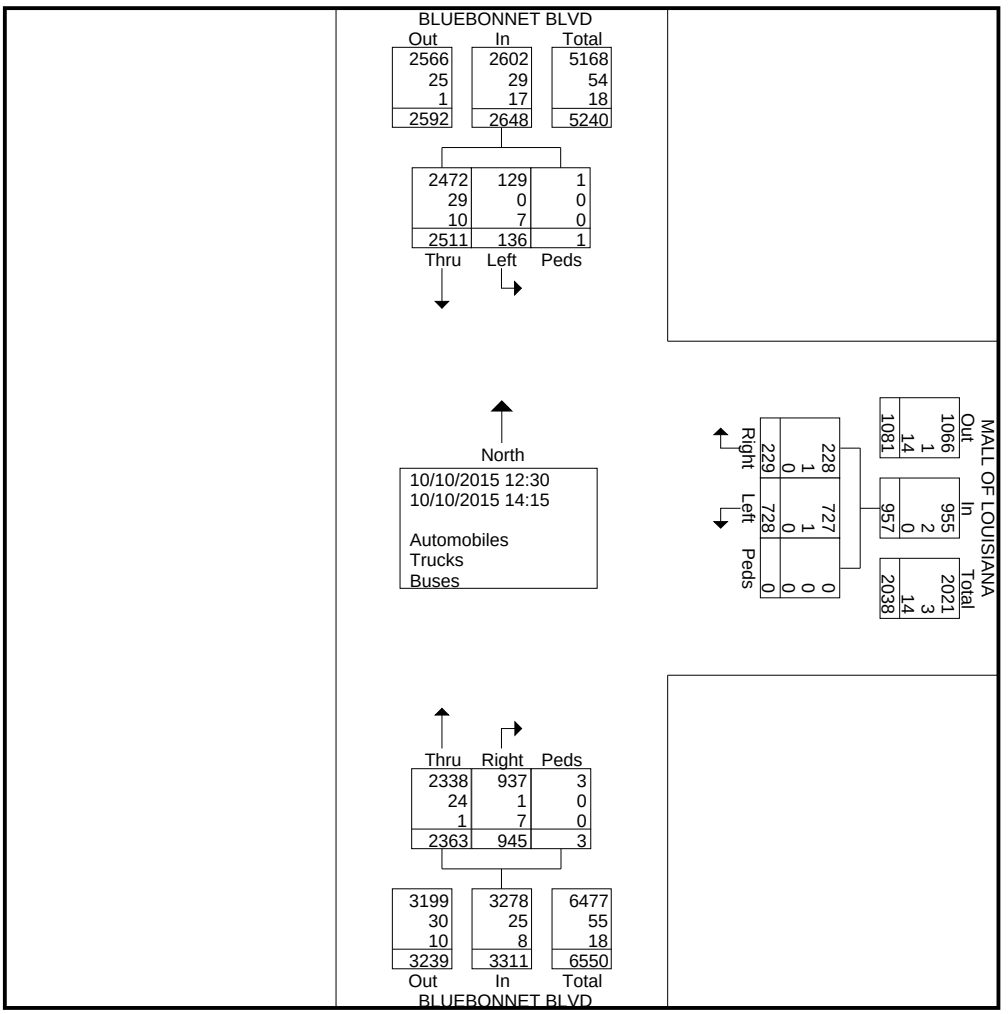
BLUEBONNET BLVD @ MALL OF LOUISIANA
BATON ROUGE, LOUISIANA

File Name : 15076-4 SAT BLUEBONNET @ MALL OF LA
Site Code : 15076-5
Start Date : 10/10/2015
Page No : 2



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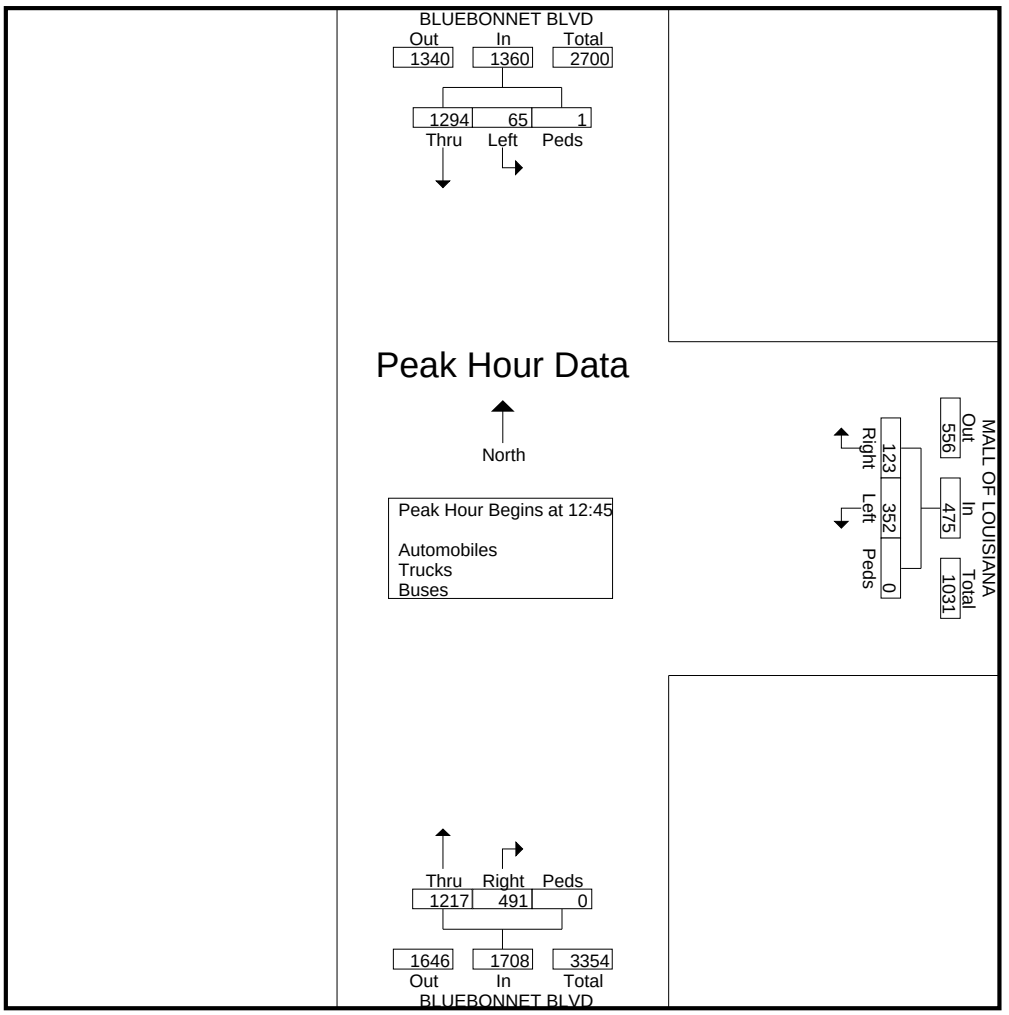
BLUEBONNET BLVD @ MALL OF LOUISIANA
BATON ROUGE, LOUISIANA

File Name : 15076-4 SAT BLUEBONNET @ MALL OF LA
Site Code : 15076-5
Start Date : 10/10/2015
Page No : 3

	BLUEBONNET BLVD Southbound				MALL OF LOUISIANA Westbound				BLUEBONNET BLVD Northbound				
Start Time	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:30 to 14:15 - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:45													
12:45	15	**340**	0	**355**	82	24	0	106	330	134	0	**464**	**925**
13:00	**27**	318	0	345	86	25	0	111	265	**136**	0	401	857
13:15	11	308	**1**	320	91	**38**	0	**129**	291	110	0	401	850
13:30	12	328	0	340	**93**	36	0	129	**331**	111	0	442	911
Total Volume	65	1294	1	1360	352	123	0	475	1217	491	0	1708	3543
% App. Total	4.8	95.1	0.1		74.1	25.9	0		71.3	28.7	0		
PHF	.602	.951	.250	.958	.946	.809	.000	.921	.919	.903	.000	.920	.958



File Name: G:\DATA\2015\Private\15076\TMC'S Saturday\15076-4 SAT BLUEBONNET @ MALL OF LA.ppd
Start Date: 10/10/2015
Start Time: 12:30:00 PM
Site Code: 15076-5
Comment 1: BLUEBONNET BLVD @ MALL OF LOUISIANA
Comment 2: BATON ROUGE, LOUISIANA
Comment 3:
Comment 4:

HGV % by Movement

	BLUEBONNET BLVD			MALL OF LOUISIANA			BLUEBONNET BLVD		
Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds
12:30	4%	1%		0%	0%		1%	2%	
12:45	7%	1%		1%	4%		1%	1%	
13:00	0%	2%		0%	0%		1%	1%	
13:15	18%	1%		0%	0%		1%	0%	
13:30	8%	1%		0%	0%		1%	1%	
13:45	7%	2%		0%	0%		1%	0%	
14:00	0%	1%		0%	0%		3%	2%	
14:15	7%	3%		0%	0%		1%	0%	

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Bluebonnet Blvd @ Picardy Ave
Baton Rouge, Louisiana

File Name : 15076-5 BLUEBONNET @ PICARDY AVE
Site Code : 15076-5
Start Date : 10/8/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	Bluebonnet Blvd Southbound				Picardy Ave Westbound				Bluebonnet Blvd Northbound				Picardy Ave Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00	14	284	176	0	9	31	2	0	36	232	1	0	25	0	6	0	816
07:15	4	364	185	0	2	48	2	0	51	317	2	0	38	4	17	0	1034
07:30	13	415	225	0	6	42	0	0	59	351	2	0	44	1	24	1	1183
07:45	7	452	239	0	5	27	0	0	64	373	1	0	46	1	19	0	1234
Total	38	1515	825	0	22	148	4	0	210	1273	6	0	153	6	66	1	4267
08:00	10	444	210	0	3	25	0	0	48	385	0	0	38	2	20	0	1185
08:15	11	390	181	0	6	21	1	0	36	294	1	0	56	3	22	1	1023
08:30	12	379	177	0	3	18	1	0	43	312	4	1	57	5	22	0	1034
08:45	14	359	150	0	4	6	0	0	33	268	3	0	70	7	27	0	941
Total	47	1572	718	0	16	70	2	0	160	1259	8	1	221	17	91	1	4183
09:00	18	283	124	0	1	4	1	0	38	240	3	0	57	12	21	0	802
09:15	23	293	102	0	2	11	0	0	33	283	4	0	65	14	35	0	865
09:30	29	252	139	0	3	9	3	0	29	247	8	0	70	14	34	0	837
09:45	32	260	109	0	10	13	3	0	34	286	9	0	65	14	38	0	873
Total	102	1088	474	0	16	37	7	0	134	1056	24	0	257	54	128	0	3377
BREAK																	
12:00	65	281	80	0	16	27	4	0	27	278	8	0	114	42	67	0	1009
12:15	53	288	72	0	15	26	2	0	41	307	9	0	102	41	50	0	1006
12:30	49	301	98	0	15	38	15	0	53	313	10	0	86	34	36	1	1049
12:45	54	362	126	0	17	40	17	0	52	345	10	0	64	31	33	0	1151
Total	221	1232	376	0	63	131	38	0	173	1243	37	0	366	148	186	1	4215
13:00	49	288	107	0	14	23	6	0	53	331	19	0	81	19	42	0	1032
13:15	52	323	101	0	14	25	6	0	35	304	11	0	93	25	29	0	1018
13:30	41	278	102	0	13	20	17	0	28	297	7	0	102	25	49	0	979
13:45	51	305	97	0	15	26	10	0	44	351	7	0	86	21	25	0	1038
Total	193	1194	407	0	56	94	39	0	160	1283	44	0	362	90	145	0	4067
BREAK																	
15:00	34	340	49	0	12	9	19	0	37	377	5	0	0	0	0	0	882
15:15	42	315	44	0	14	10	11	0	26	363	8	0	0	0	0	0	833
15:30	27	300	44	0	14	8	8	0	31	349	6	0	0	0	0	0	787
15:45	32	369	41	0	13	5	11	0	31	354	7	0	0	0	0	0	863
Total	135	1324	178	0	53	32	49	0	125	1443	26	0	0	0	0	0	3365
16:00	37	296	47	0	9	9	12	0	24	414	7	0	160	63	57	0	1135
16:15	29	297	44	0	13	12	14	0	17	384	10	0	169	51	60	0	1100
16:30	41	296	43	0	16	7	18	0	24	419	2	0	159	79	64	0	1168
16:45	35	284	35	0	15	13	13	0	20	423	3	0	158	80	56	0	1135
Total	142	1173	169	0	53	41	57	0	85	1640	22	0	646	273	237	0	4538
17:00	35	353	41	0	15	16	10	0	21	410	12	0	138	59	52	1	1163
17:15	38	361	50	0	21	10	14	0	20	420	6	0	147	51	46	0	1184
17:30	37	330	45	0	18	11	22	0	23	411	5	0	109	26	38	0	1075
17:45	47	292	35	0	11	14	19	0	25	370	10	0	66	15	22	0	926
Total	157	1336	171	0	65	51	65	0	89	1611	33	0	460	151	158	1	4348
Grand Total	1035	10434	3318	0	344	604	261	0	1136	10808	200	1	2465	739	1011	4	32360
Apprch %	7	70.6	22.4	0	28.5	50	21.6	0	9.4	89	1.6	0	58.4	17.5	24	0.1	
Total %	3.2	32.2	10.3	0	1.1	1.9	0.8	0	3.5	33.4	0.6	0	7.6	2.3	3.1	0	
Automobiles	1021	10146	3291	0	308	579	242	0	1124	10612	195	1	2440	729	988	4	31680
% Automobiles	98.6	97.2	99.2	0	89.5	95.9	92.7	0	98.9	98.2	97.5	100	99	98.6	97.7	100	97.9
Trucks	13	258	26	0	9	10	11	0	9	181	5	0	23	10	8	0	563
% Trucks	1.3	2.5	0.8	0	2.6	1.7	4.2	0	0.8	1.7	2.5	0	0.9	1.4	0.8	0	1.7
Buses	1	30	1	0	27	15	8	0	3	15	0	0	2	0	15	0	117
% Buses	0.1	0.3	0	0	7.8	2.5	3.1	0	0.3	0.1	0	0	0.1	0	1.5	0	0.4

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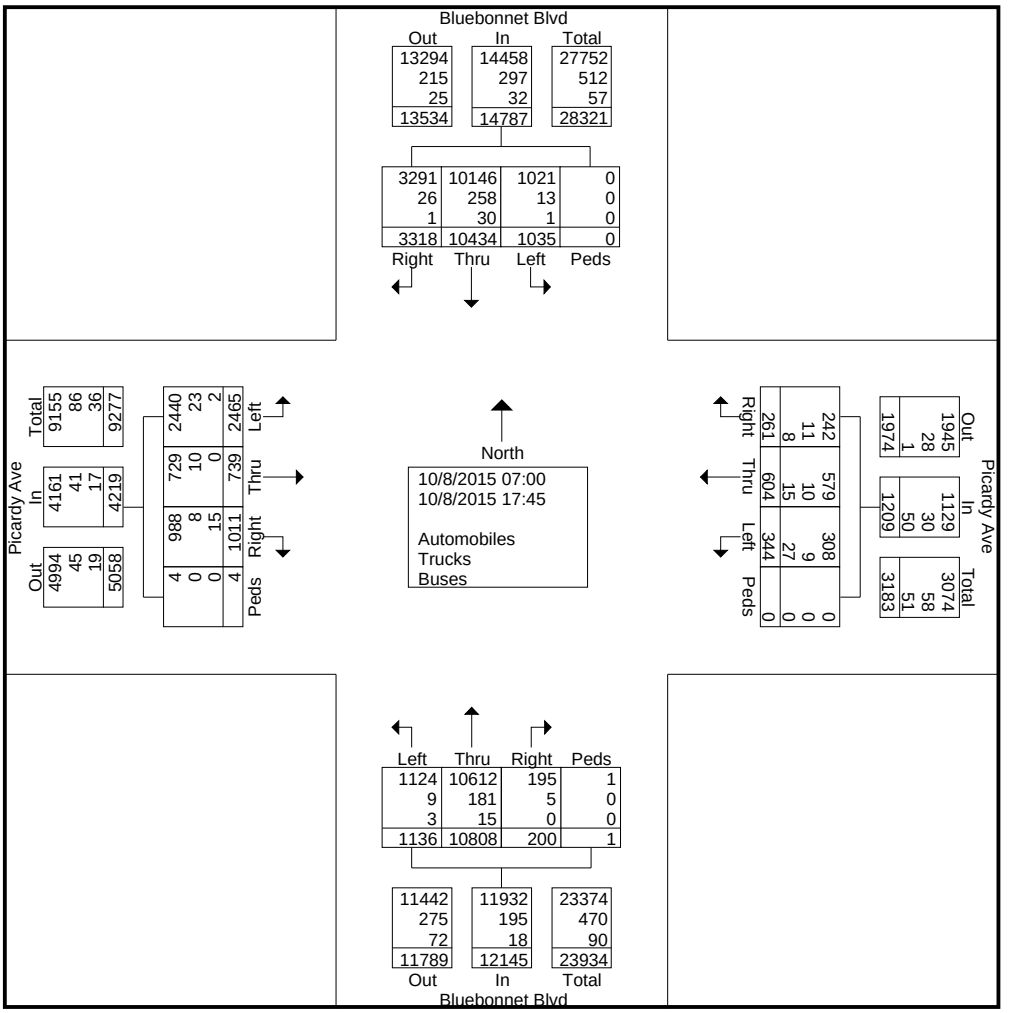

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Bluebonnet Blvd @ Picardy Ave
Baton Rouge, Louisiana

File Name : 15076-5 BLUEBONNET @ PICARDY AVE
Site Code : 15076-5
Start Date : 10/8/2015
Page No : 3

	Bluebonnet Blvd Southbound					Picardy Ave Westbound					Bluebonnet Blvd Northbound					Picardy Ave Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15																					
07:15	4	364	185	0	553	2	**48**	**2**	0	**52**	51	317	**2**	0	370	38	**4**	17	0	59	1034
07:30	**13**	415	225	0	653	**6**	42	0	0	48	59	351	2	0	412	44	1	**24**	**1**	**70**	1183
07:45	7	**452**	**239**	0	**698**	5	27	0	0	32	**64**	373	1	0	**438**	**46**	1	19	0	66	**1234**
08:00	10	444	210	0	664	3	25	0	0	28	48	**385**	0	0	433	38	2	20	0	60	1185
Total Volume	34	1675	859	0	2568	16	142	2	0	160	222	1426	5	0	1653	166	8	80	1	255	4636
% App. Total	1.3	65.2	33.5	0		10	88.8	1.2	0		13.4	86.3	0.3	0		65.1	3.1	31.4	0.4		
PHF	.654	.926	.899	.000	.920	.667	.740	.250	.000	.769	.867	.926	.625	.000	.943	.902	.500	.833	.250	.911	.939

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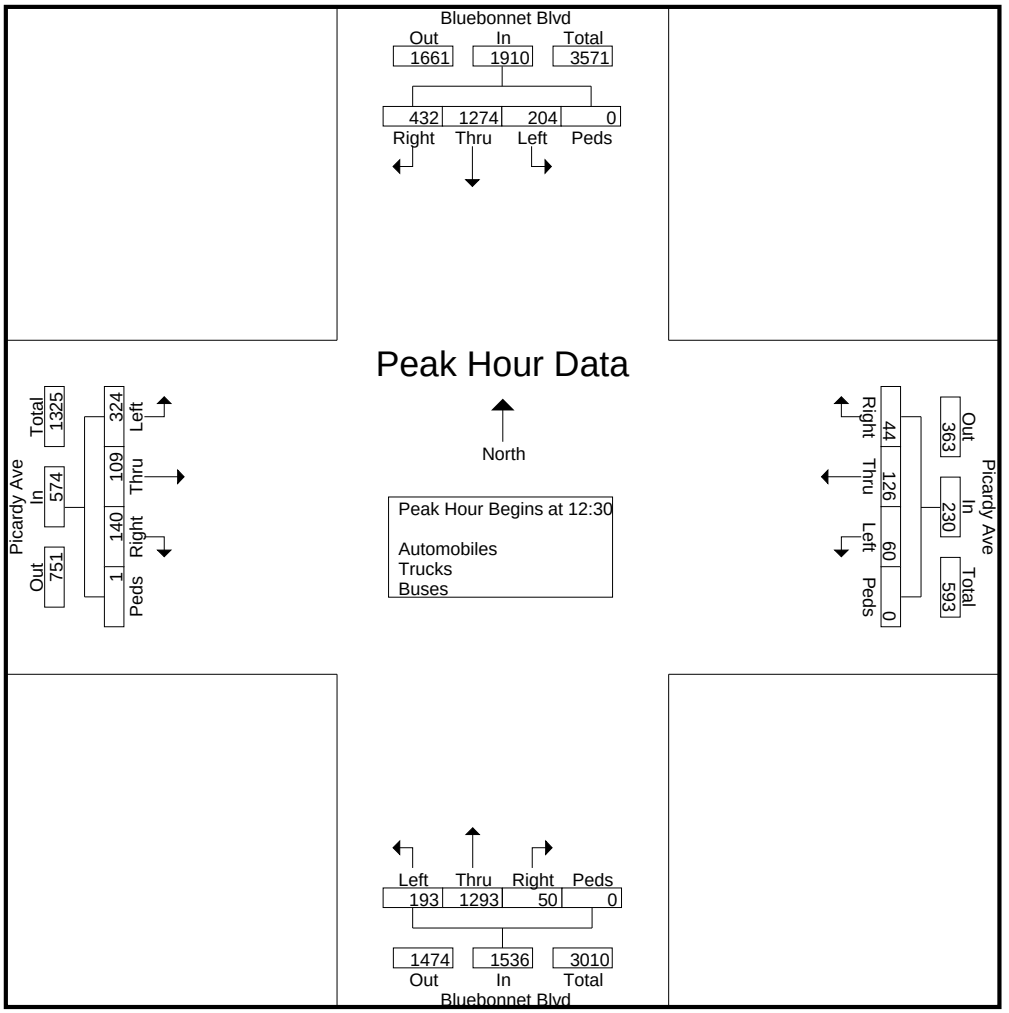
Bluebonnet Blvd @ Picardy Ave
Baton Rouge, Louisiana

File Name : 15076-5 BLUEBONNET @ PICARDY AVE
Site Code : 15076-5
Start Date : 10/8/2015
Page No : 4

	Bluebonnet Blvd Southbound					Picardy Ave Westbound					Bluebonnet Blvd Northbound					Picardy Ave Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30																					
12:30	49	301	98	0	448	15	38	15	0	68	**53**	313	10	0	376	86	**34**	36	**1**	**157**	1049
12:45	**54**	**362**	**126**	0	**542**	**17**	**40**	**17**	0	**74**	52	**345**	10	0	**407**	64	31	33	0	128	**1151**
13:00	49	288	107	0	444	14	23	6	0	43	53	331	**19**	0	403	81	19	**42**	0	142	1032
13:15	52	323	101	0	476	14	25	6	0	45	35	304	11	0	350	**93**	25	29	0	147	1018
Total Volume	204	1274	432	0	1910	60	126	44	0	230	193	1293	50	0	1536	324	109	140	1	574	4250
% App. Total	10.7	66.7	22.6	0		26.1	54.8	19.1	0		12.6	84.2	3.3	0		56.4	19	24.4	0.2		
PHF	.944	.880	.857	.000	.881	.882	.788	.647	.000	.777	.910	.937	.658	.000	.943	.871	.801	.833	.250	.914	.923



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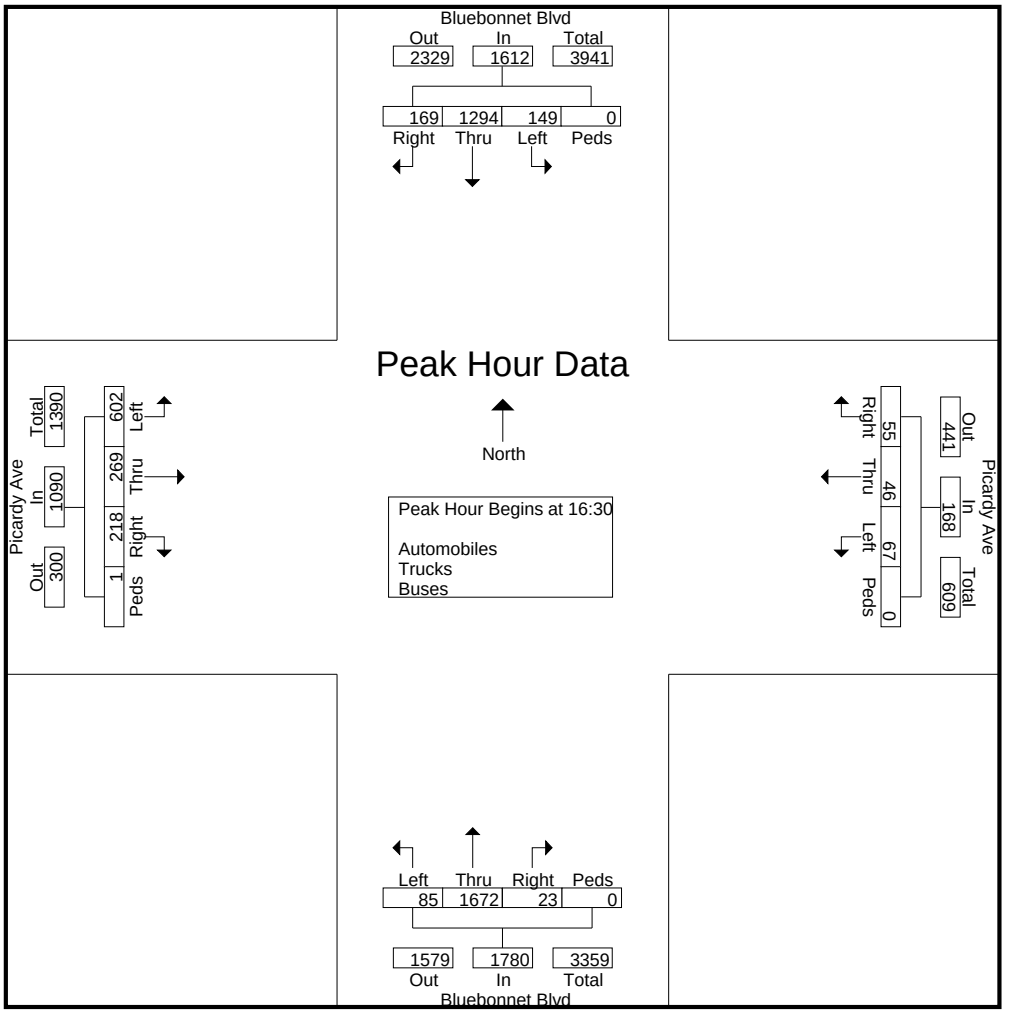
Bluebonnet Blvd @ Picardy Ave
Baton Rouge, Louisiana

File Name : 15076-5 BLUEBONNET @ PICARDY AVE
Site Code : 15076-5
Start Date : 10/8/2015
Page No : 5

	Bluebonnet Blvd Southbound					Picardy Ave Westbound					Bluebonnet Blvd Northbound					Picardy Ave Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 14:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	**41**	296	43	0	380	16	7	**18**	0	41	**24**	419	2	0	445	**159**	79	**64**	0	**302**	1168
16:45	35	284	35	0	354	15	13	13	0	41	20	**423**	3	0	**446**	158	**80**	56	0	294	1135
17:00	35	353	41	0	429	15	**16**	10	0	41	21	410	**12**	0	443	138	59	52	**1**	250	1163
17:15	38	**361**	**50**	0	**449**	**21**	10	14	0	**45**	20	420	6	0	446	147	51	46	0	244	**1184**
Total Volume	149	1294	169	0	1612	67	46	55	0	168	85	1672	23	0	1780	602	269	218	1	1090	4650
% App. Total	9.2	80.3	10.5	0		39.9	27.4	32.7	0		4.8	93.9	1.3	0		55.2	24.7	20	0.1		
PHF	.909	.896	.845	.000	.898	.798	.719	.764	.000	.933	.885	.988	.479	.000	.998	.947	.841	.852	.250	.902	.982



File Name: G:\DATA\2015\Private\15076\TMC's Thursday\15076-5 BLUEBONNET @ PICARDY AVE.ppd
Start Date: 10/8/2015
Start Time: 7:00:00 AM
Site Code: 15076-5
Comment 1: Bluebonnet Blvd @ Picardy Ave
Comment 2: Baton Rouge, Louisiana
Comment 3:
Comment 4:

HGV % by Movement

	Bluebonnet Blvd				Picardy Ave				Bluebonnet Blvd				Picardy Ave			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00	14%	5%	1%		0%	3%	0%		0%	2%	0%		0%	#DIV/0!	17%	
07:15	0%	3%	0%		50%	4%	0%		0%	2%	0%		3%	50%	0%	
07:30	15%	2%	1%		33%	2%	#DIV/0!		2%	2%	100%		0%	0%	4%	
07:45	0%	2%	0%		60%	0%	#DIV/0!		0%	1%	0%		4%	0%	5%	
08:00	0%	2%	1%		0%	4%	#DIV/0!		0%	4%	#DIV/0!		3%	0%	10%	
08:15	9%	1%	1%		17%	5%	0%		0%	3%	0%		0%	0%	0%	
08:30	0%	4%	1%		33%	6%	0%		0%	0%	0%		5%	0%	5%	
08:45	0%	3%	1%		75%	0%	#DIV/0!		0%	3%	0%		0%	0%	4%	
09:00	0%	4%	1%		0%	25%	0%		0%	3%	0%		0%	0%	10%	
09:15	0%	5%	0%		50%	9%	#DIV/0!		6%	3%	0%		0%	0%	6%	
09:30	0%	6%	4%		33%	22%	33%		3%	3%	13%		0%	0%	3%	
09:45	9%	5%	1%		20%	8%	0%		0%	0%	0%		5%	7%	0%	
10:00																
10:15																
10:30																
10:45																
11:00																
11:15																
11:30																
11:45																
12:00	0%	4%	4%		6%	0%	0%		0%	2%	0%		1%	0%	3%	
12:15	0%	6%	0%		7%	4%	0%		0%	3%	0%		1%	2%	2%	
12:30	0%	3%	0%		0%	3%	13%		0%	2%	0%		2%	0%	6%	
12:45	2%	4%	1%		18%	0%	6%		2%	2%	0%		0%	3%	0%	
13:00	0%	2%	0%		0%	0%	0%		2%	3%	0%		0%	0%	2%	
13:15	2%	2%	1%		7%	4%	17%		0%	3%	0%		1%	0%	0%	
13:30	0%	1%	0%		8%	5%	12%		4%	1%	14%		1%	4%	2%	
13:45	0%	4%	1%		20%	0%	0%		0%	1%	0%		1%	10%	0%	
14:00																
14:15																
14:30																
14:45																
15:00	3%	2%	0%		8%	0%	11%		5%	2%	0%		#DIV/0!	#DIV/0!	#DIV/0!	
15:15	0%	2%	5%		0%	10%	0%		0%	1%	0%		#DIV/0!	#DIV/0!	#DIV/0!	
15:30	0%	2%	0%		7%	25%	13%		3%	4%	17%		#DIV/0!	#DIV/0!	#DIV/0!	
15:45	0%	2%	0%		23%	0%	0%		3%	1%	0%		#DIV/0!	#DIV/0!	#DIV/0!	
16:00	0%	3%	2%		0%	0%	0%		0%	0%	0%		1%	0%	0%	
16:15	3%	2%	0%		0%	8%	7%		0%	2%	0%		1%	0%	0%	
16:30	0%	2%	0%		13%	0%	17%		4%	1%	0%		1%	0%	2%	
16:45	0%	1%	3%		7%	23%	8%		0%	0%	0%		2%	3%	0%	
17:00	0%	2%	0%		0%	0%	0%		0%	1%	0%		1%	0%	4%	
17:15	5%	1%	0%		0%	10%	7%		0%	1%	0%		0%	0%	0%	
17:30	0%	2%	0%		11%	9%	0%		0%	1%	0%		0%	0%	3%	
17:45	0%	2%	0%		9%	0%	16%		0%	3%	0%		0%	0%	0%	

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BLUEBONNET BLVD @ PICARDY AVE
BATON ROUGE, LOUISIANA

File Name : 15076-5 SAT BLUEBONNET BLVD @ PICARDY AVE
Site Code : 15076-5
Start Date : 10/10/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	BLUEBONNET BLVD Southbound				PICARDY AVE Westbound				BLUEBONNET BLVD Northbound				PICARDY AVE Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
12:30	59	281	37	0	17	10	29	0	13	313	28	0	49	10	17	0	863
12:45	85	320	33	0	18	12	37	0	10	326	22	0	28	17	17	0	925
Total	144	601	70	0	35	22	66	0	23	639	50	0	77	27	34	0	1788
13:00	79	301	18	0	28	9	63	0	13	242	19	0	26	18	16	1	833
13:15	81	284	32	0	19	12	54	1	23	312	15	0	22	10	15	1	881
13:30	76	320	37	0	21	6	61	0	17	287	27	0	35	21	20	0	928
13:45	99	308	26	0	24	5	60	0	20	325	14	0	24	18	15	0	938
Total	335	1213	113	0	92	32	238	1	73	1166	75	0	107	67	66	2	3580
14:00	77	284	28	0	23	12	65	0	20	261	19	0	28	18	13	1	849
14:15	87	286	29	0	29	8	69	0	10	247	10	0	27	7	14	0	823
Grand Total	643	2384	240	0	179	74	438	1	126	2313	154	0	239	119	127	3	7040
Apprch %	19.7	73	7.3	0	25.9	10.7	63.3	0.1	4.9	89.2	5.9	0	49	24.4	26	0.6	
Total %	9.1	33.9	3.4	0	2.5	1.1	6.2	0	1.8	32.9	2.2	0	3.4	1.7	1.8	0	
Automobiles	641	2348	238	0	173	68	430	1	125	2285	153	0	237	119	120	3	6941
% Automobiles	99.7	98.5	99.2	0	96.6	91.9	98.2	100	99.2	98.8	99.4	0	99.2	100	94.5	100	98.6
Trucks	0	32	2	0	0	0	3	0	1	28	1	0	2	0	0	0	69
% Trucks	0	1.3	0.8	0	0	0	0.7	0	0.8	1.2	0.6	0	0.8	0	0	0	1
Buses	2	4	0	0	6	6	5	0	0	0	0	0	0	0	7	0	30
% Buses	0.3	0.2	0	0	3.4	8.1	1.1	0	0	0	0	0	0	0	5.5	0	0.4

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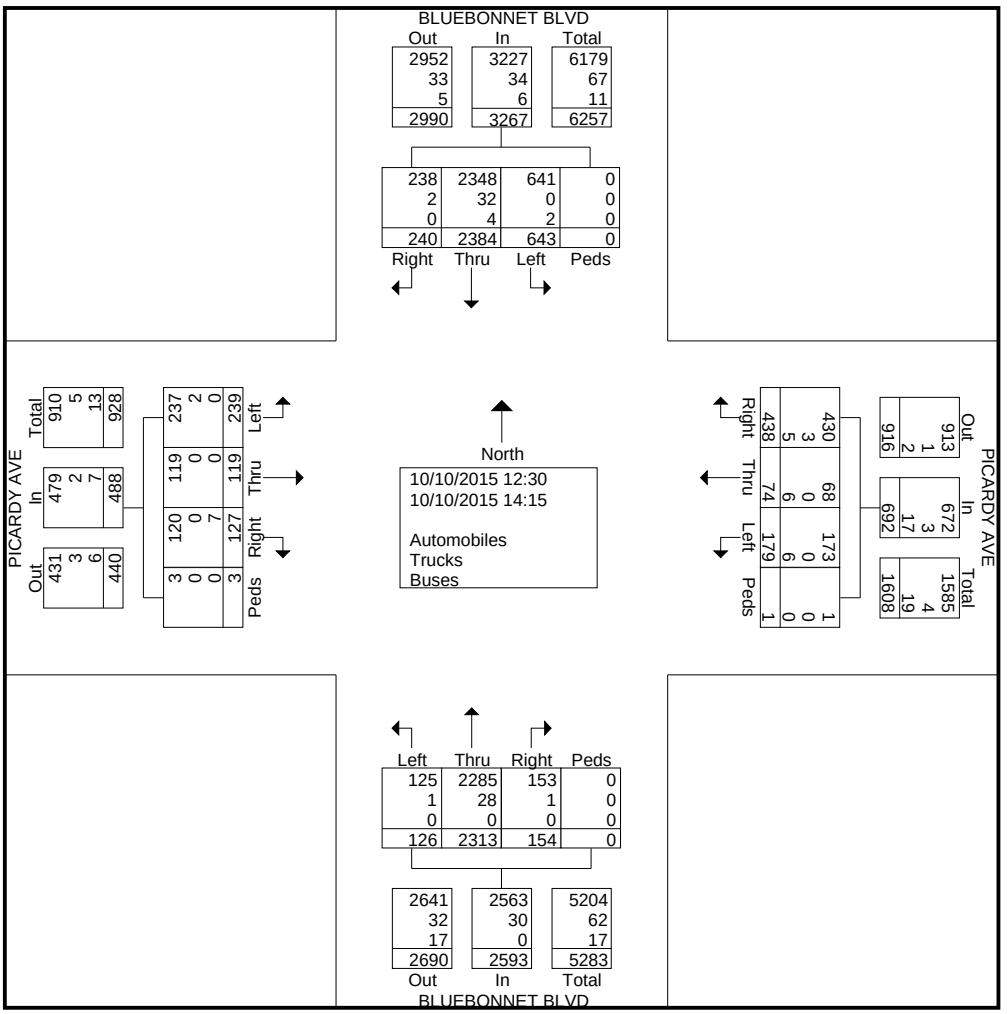
BLUEBONNET BLVD @ PICARDY AVE
BATON ROUGE, LOUISIANA

File Name : 15076-5 SAT BLUEBONNET BLVD @ PICARDY AVE
Site Code : 15076-5
Start Date : 10/10/2015
Page No : 2



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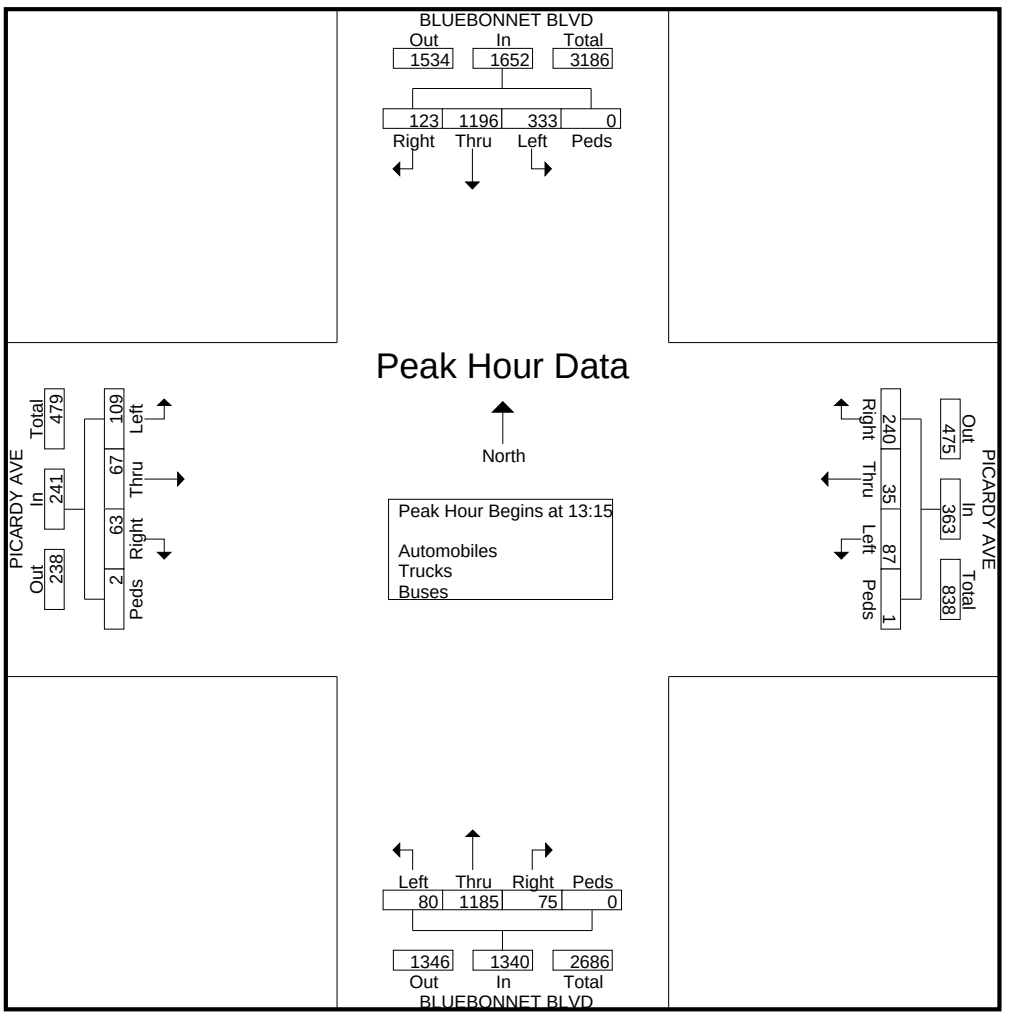
BLUEBONNET BLVD @ PICARDY AVE
BATON ROUGE, LOUISIANA

File Name : 15076-5 SAT BLUEBONNET BLVD @ PICARDY AVE
Site Code : 15076-5
Start Date : 10/10/2015
Page No : 3

	BLUEBONNET BLVD Southbound					PICARDY AVE Westbound					BLUEBONNET BLVD Northbound					PICARDY AVE Eastbound					
Start Time		Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:30 to 14:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 13:15																					
13:15	81	284	32	0	397	19	**12**	54	**1**	86	**23**	312	15	0	350	22	10	15	**1**	48	881
13:30	76	**320**	**37**	0	**433**	21	6	61	0	88	17	287	**27**	0	331	**35**	**21**	**20**	0	**76**	928
13:45	**99**	308	26	0	433	**24**	5	60	0	89	20	**325**	14	0	**359**	24	18	15	0	57	**938**
14:00	77	284	28	0	389	23	12	**65**	0	**100**	20	261	19	0	300	28	18	13	1	60	849
Total Volume	333	1196	123	0	1652	87	35	240	1	363	80	1185	75	0	1340	109	67	63	2	241	3596
% App. Total	20.2	72.4	7.4	0		24	9.6	66.1	0.3		6	88.4	5.6	0		45.2	27.8	26.1	0.8		
PHF	.841	.934	.831	.000	.954	.906	.729	.923	.250	.908	.870	.912	.694	.000	.933	.779	.798	.788	.500	.793	.958



File Name: G:\DATA\2015\Private\15076\TMC'S Saturday\15076-5 SAT BLUEBONNET BLVD @ PICARDY AVE.ppd
Start Date: 10/10/2015
Start Time: 12:30:00 PM
Site Code: 15076-5
Comment 1: BLUEBONNET BLVD @ PICARDY AVE
Comment 2: BATON ROUGE, LOUISIANA
Comment 3:
Comment 4:

HGV % by Movement

	BLUEBONNET BLVD				PICARDY AVE				BLUEBONNET BLVD				PICARDY AVE			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
12:30	0%	1%	0%		6%	10%	3%		0%	1%	0%		2%	0%	12%	
12:45	0%	1%	0%		6%	0%	0%		0%	1%	0%		0%	0%	6%	
13:00	0%	2%	0%		4%	11%	3%		0%	1%	5%		0%	0%	0%	
13:15	0%	2%	3%		0%	8%	0%		0%	1%	0%		0%	0%	7%	
13:30	0%	1%	0%		0%	17%	0%		0%	1%	0%		3%	0%	5%	
13:45	0%	2%	0%		4%	0%	3%		5%	1%	0%		0%	0%	7%	
14:00	1%	1%	0%		4%	8%	0%		0%	2%	0%		0%	0%	0%	
14:15	1%	2%	3%		3%	13%	4%		0%	1%	0%		0%	0%	7%	

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BLUEBONNET BLVD @ MALL RD
BATON ROUGE, LOUISIANA

File Name : 15076-6 RESET BLUEBONNET @ MALL RD
Site Code : 15076-6
Start Date : 10/29/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	BLUEBONNET Southbound				MALL RD Westbound				BLUEBONNET Northbound				MALL RD Eastbound				
Start Time	Left	Thru	Right	U-Turns	Left	Thru	Right	U-Turns	Left	Thru	Right	U-Turns	Left	Thru	Right	U-Turns	Int. Total
07:00	4	435	3	1	0	0	2	0	2	282	2	0	7	0	2	0	740
07:15	7	601	0	0	0	0	3	0	0	383	2	0	1	0	3	0	1000
07:30	6	669	2	0	0	0	4	0	0	388	3	0	3	0	3	0	1078
07:45	6	717	0	1	0	0	3	0	0	442	2	0	3	0	4	0	1178
Total	23	2422	5	2	0	0	12	0	2	1495	9	0	14	0	12	0	3996
08:00	9	677	0	0	0	0	7	0	0	444	2	0	3	0	0	0	1142
08:15	10	617	2	0	0	0	10	0	0	382	5	0	3	0	1	0	1030
08:30	13	594	5	0	0	0	4	0	1	343	3	0	3	0	1	0	967
08:45	24	569	3	1	0	0	7	0	1	332	2	0	2	0	1	0	942
Total	56	2457	10	1	0	0	28	0	2	1501	12	0	11	0	3	0	4081
09:00	21	497	3	1	0	0	13	0	0	359	2	0	4	0	2	0	902
09:15	26	423	3	0	0	0	15	0	1	343	4	0	2	0	0	0	817
09:30	26	434	6	0	0	0	14	0	2	320	11	0	4	2	1	0	820
09:45	37	441	1	1	0	0	13	0	0	326	5	0	2	0	0	0	826
Total	110	1795	13	2	0	0	55	0	3	1348	22	0	12	2	3	0	3365
BREAK																	
12:00	51	450	9	0	0	0	62	0	3	462	6	0	13	0	3	0	1059
12:15	61	471	6	0	0	0	87	0	5	475	4	1	7	2	1	0	1120
12:30	51	451	5	0	0	0	81	0	7	453	8	1	8	0	2	0	1067
12:45	60	477	4	0	0	0	94	0	6	441	10	0	6	2	0	0	1100
Total	223	1849	24	0	0	0	324	0	21	1831	28	2	34	4	6	0	4346
13:00	44	481	6	0	0	0	88	0	2	464	8	1	5	0	3	0	1102
13:15	49	424	6	0	0	0	100	0	3	454	4	0	9	2	2	0	1053
13:30	57	490	11	0	0	0	72	0	3	507	5	0	10	2	5	0	1162
13:45	47	441	5	0	0	0	76	0	5	485	4	0	10	1	3	0	1077
Total	197	1836	28	0	0	0	336	0	13	1910	21	1	34	5	13	0	4394
BREAK																	
15:00	37	442	4	0	0	0	62	0	2	564	2	0	4	0	2	0	1119
15:15	27	437	6	0	0	0	78	0	3	554	2	0	9	0	0	0	1116
15:30	44	414	7	0	0	0	68	0	1	574	6	3	3	2	2	0	1124
15:45	33	426	3	0	0	0	93	0	2	531	7	0	4	0	1	0	1100
Total	141	1719	20	0	0	0	301	0	8	2223	17	3	20	2	5	0	4459
16:00	32	402	6	0	0	0	82	0	1	587	6	0	2	0	1	0	1119
16:15	47	382	6	0	0	0	93	0	4	591	3	0	2	2	0	0	1130
16:30	44	421	8	0	0	0	82	0	5	557	3	0	7	0	0	0	1127
16:45	50	404	5	0	0	0	89	0	1	562	6	1	4	2	0	0	1124
Total	173	1609	25	0	0	0	346	0	11	2297	18	1	15	4	1	0	4500
17:00	60	444	7	0	0	0	79	0	2	609	11	0	4	0	4	0	1220
17:15	47	471	4	1	0	0	93	0	2	509	4	0	7	2	0	0	1140
17:30	56	386	1	0	0	0	89	0	5	544	6	0	5	1	1	0	1094
17:45	40	416	7	0	0	0	72	0	2	554	3	0	3	1	1	0	1099
Total	203	1717	19	1	0	0	333	0	11	2216	24	0	19	4	6	0	4553
Grand Total	1126	15404	144	6	0	0	1735	0	71	14821	151	7	159	21	49	0	33694
Apprch %	6.8	92.4	0.9	0	0	0	100	0	0.5	98.5	1	0	69.4	9.2	21.4	0	
Total %	3.3	45.7	0.4	0	0	0	5.1	0	0.2	44	0.4	0	0.5	0.1	0.1	0	
Automobiles	1118	15143	137	6	0	0	1722	0	68	14561	149	7	157	19	48	0	33135
% Automobiles	99.3	98.3	95.1	100	0	0	99.3	0	95.8	98.2	98.7	100	98.7	90.5	98	0	98.3
Trucks	7	214	6	0	0	0	12	0	3	209	1	0	2	1	1	0	456
% Trucks	0.6	1.4	4.2	0	0	0	0.7	0	4.2	1.4	0.7	0	1.3	4.8	2	0	1.4
Buses	1	47	1	0	0	0	1	0	0	51	1	0	0	1	0	0	103
% Buses	0.1	0.3	0.7	0	0	0	0.1	0	0	0.3	0.7	0	0	4.8	0	0	0.3

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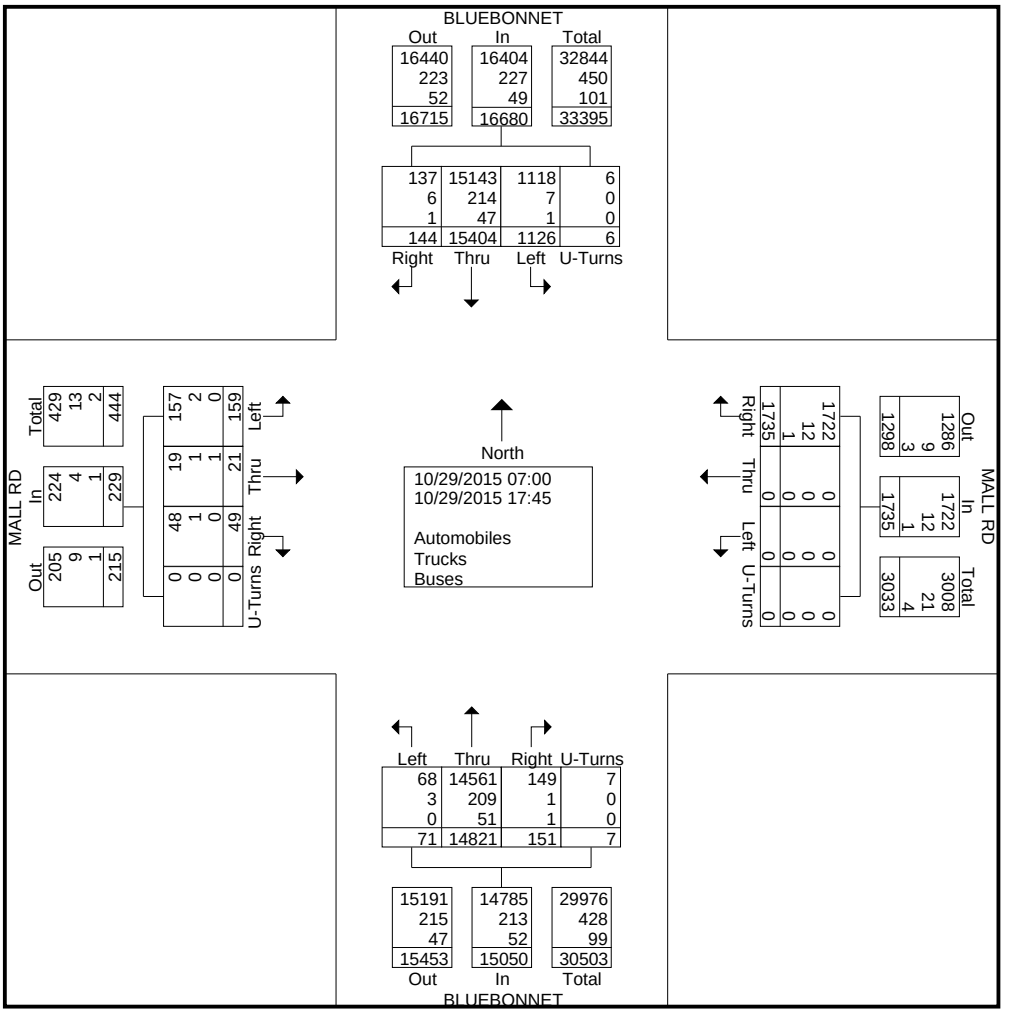

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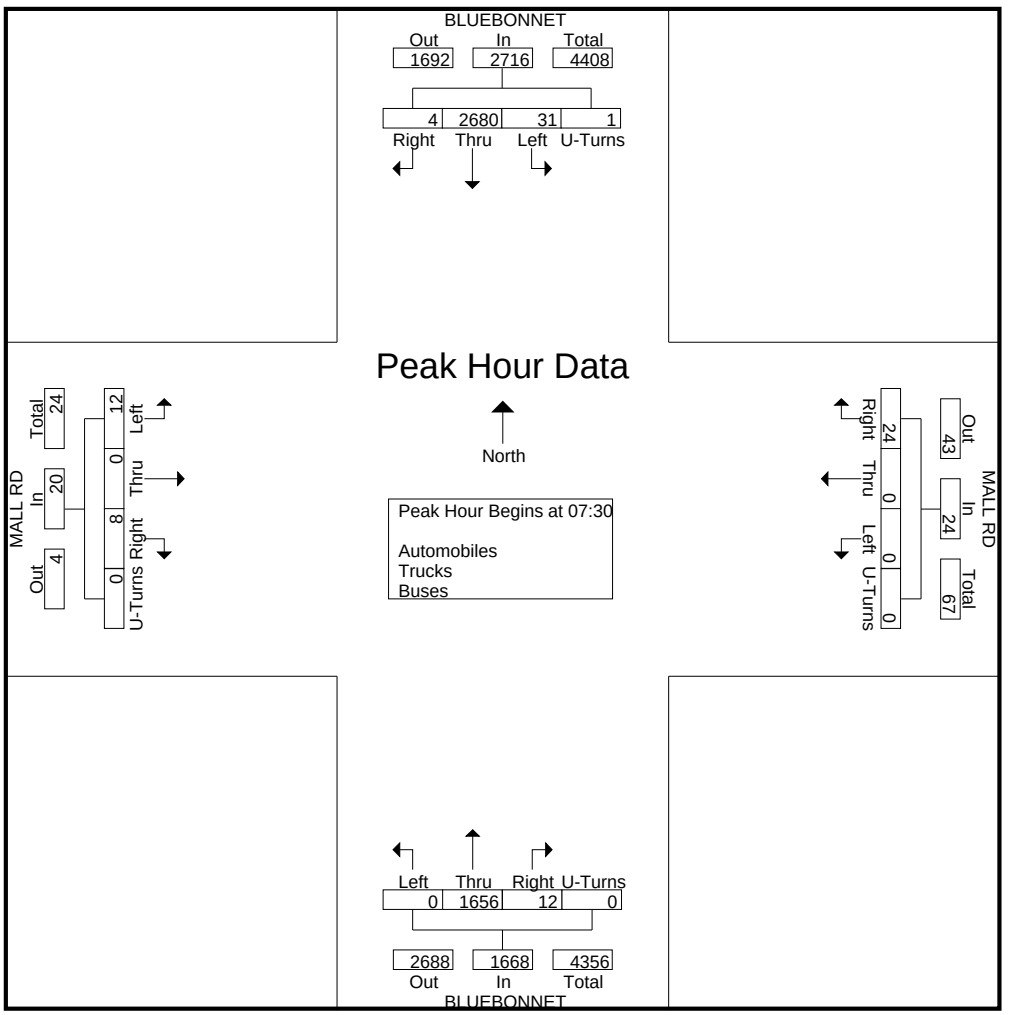
BLUEBONNET BLVD @ MALL RD
BATON ROUGE, LOUISIANA

File Name : 15076-6 RESET BLUEBONNET @ MALL RD
Site Code : 15076-6
Start Date : 10/29/2015
Page No : 3

	BLUEBONNET Southbound					MALL RD Westbound					BLUEBONNET Northbound					MALL RD Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	6	669	**2**	0	677	0	0	4	0	4	0	388	3	0	391	**3**	0	3	0	6	1078
07:45	6	**717**	0	**1**	**724**	0	0	3	0	3	0	442	2	0	444	3	0	**4**	0	**7**	**1178**
08:00	9	677	0	0	686	0	0	7	0	7	0	**444**	2	0	**446**	3	0	0	0	3	1142
08:15	**10**	617	2	0	629	0	0	**10**	0	**10**	0	382	**5**	0	387	3	0	1	0	4	1030
Total Volume	31	2680	4	1	2716	0	0	24	0	24	0	1656	12	0	1668	12	0	8	0	20	4428
% App. Total	1.1	98.7	0.1	0		0	0	100	0		0	99.3	0.7	0		60	0	40	0		
PHF	.775	.934	.500	.250	.938	.000	.000	.600	.000	.600	.000	.932	.600	.000	.935	1.00	.000	.500	.000	.714	.940



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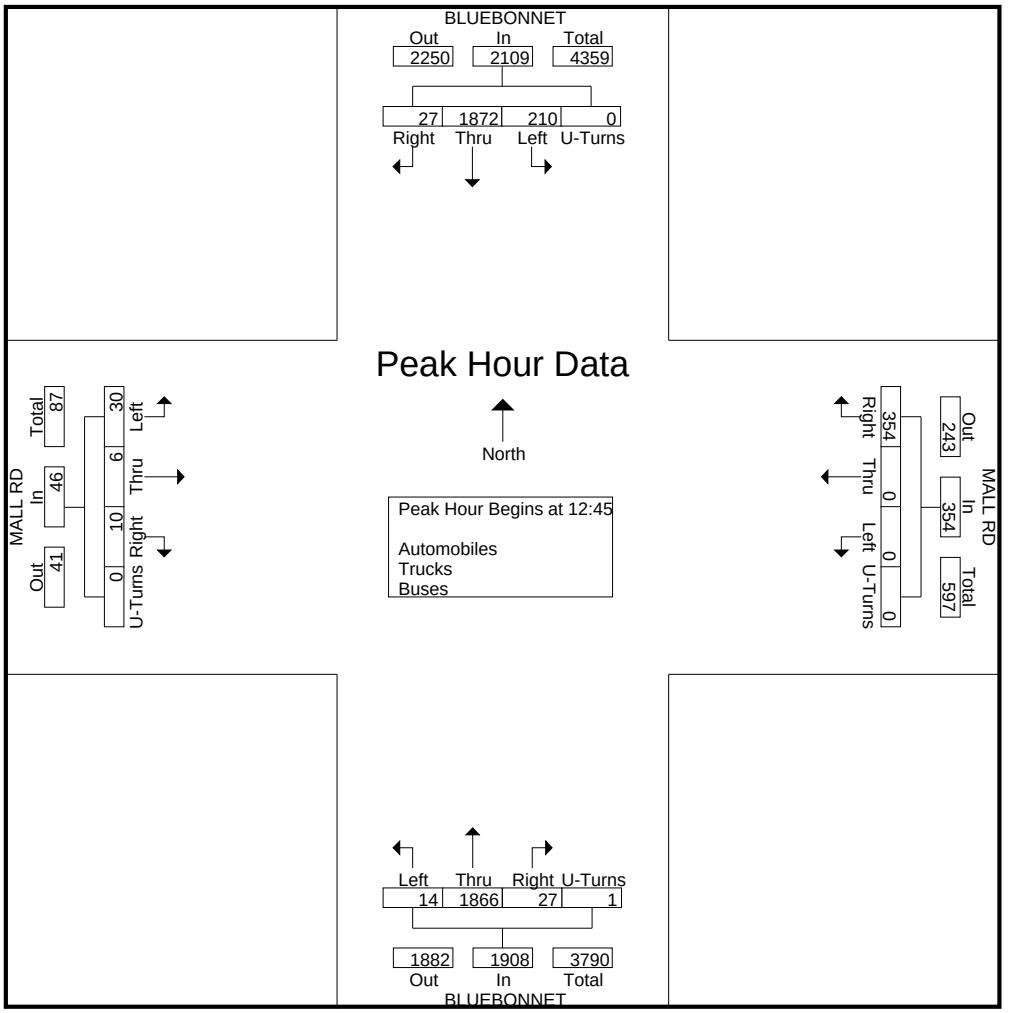
BLUEBONNET BLVD @ MALL RD
BATON ROUGE, LOUISIANA

File Name : 15076-6 RESET BLUEBONNET @ MALL RD
Site Code : 15076-6
Start Date : 10/29/2015

	BLUEBONNET Southbound					MALL RD Westbound					BLUEBONNET Northbound					MALL RD Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:45																					
12:45	**60**	477	4	0	541	0	0	94	0	94	**6**	441	**10**	0	457	6	**2**	0	0	8	1100
13:00	44	481	6	0	531	0	0	88	0	88	2	464	8	**1**	475	5	0	3	0	8	1102
13:15	49	424	6	0	479	0	0	**100**	0	**100**	3	454	4	0	461	9	2	2	0	13	1053
13:30	57	**490**	**11**	0	**558**	0	0	72	0	72	3	**507**	5	0	**515**	**10**	2	**5**	0	**17**	**1162**
Total Volume	210	1872	27	0	2109	0	0	354	0	354	14	1866	27	1	1908	30	6	10	0	46	4417
% App. Total	10	88.8	1.3	0		0	0	100	0		0.7	97.8	1.4	0.1		65.2	13	21.7	0		
PHF	.875	.955	.614	.000	.945	.000	.000	.885	.000	.885	.583	.920	.675	.250	.926	.750	.750	.500	.000	.676	.950



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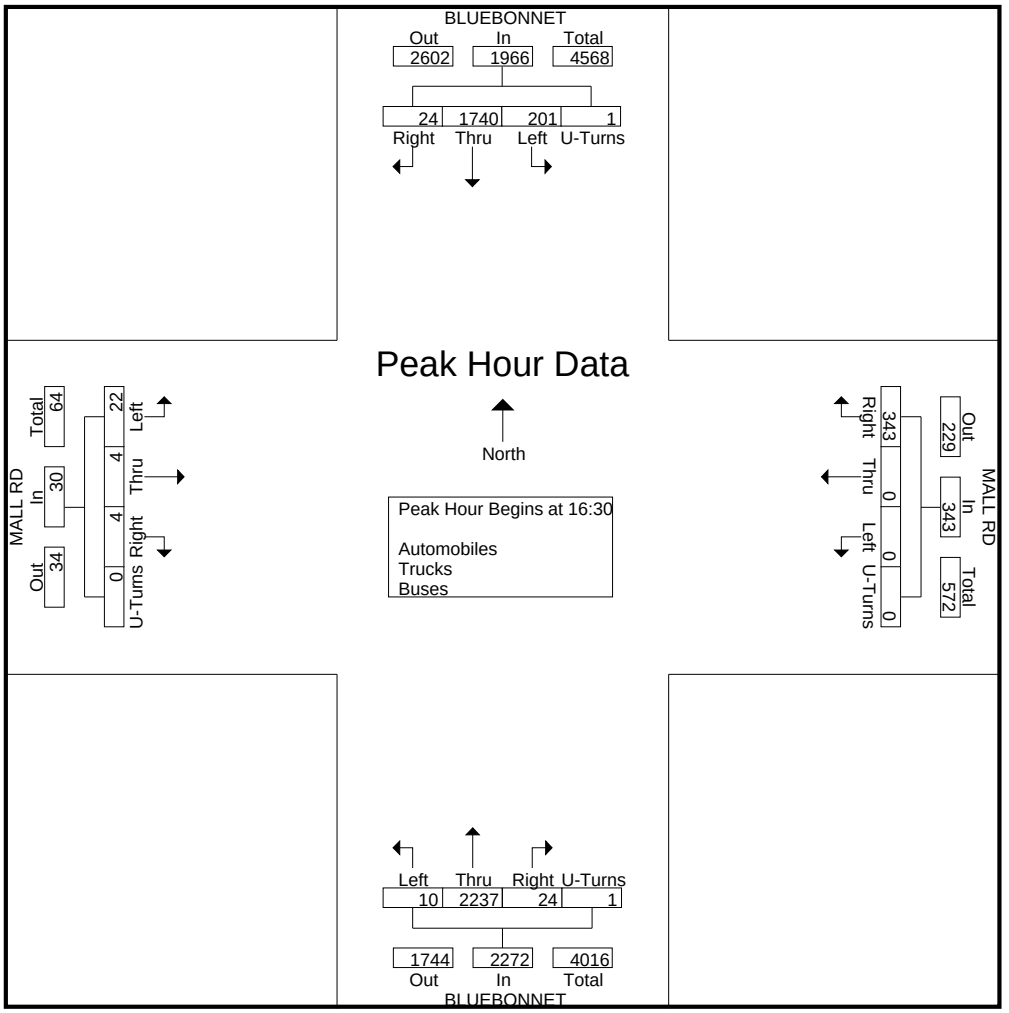
BLUEBONNET BLVD @ MALL RD
BATON ROUGE, LOUISIANA

File Name : 15076-6 RESET BLUEBONNET @ MALL RD
Site Code : 15076-6
Start Date : 10/29/2015
Page No : 5

	BLUEBONNET Southbound					MALL RD Westbound					BLUEBONNET Northbound					MALL RD Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 14:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	44	421	**8**	0	473	0	0	82	0	82	**5**	557	3	0	565	**7**	0	0	0	7	1127
16:45	50	404	5	0	459	0	0	89	0	89	1	562	6	**1**	570	4	**2**	0	0	6	1124
17:00	**60**	444	7	0	511	0	0	79	0	79	2	**609**	**11**	0	**622**	4	0	**4**	0	8	**1220**
17:15	47	**471**	4	**1**	**523**	0	0	**93**	0	**93**	2	509	4	0	515	7	2	0	0	**9**	1140
Total Volume	201	1740	24	1	1966	0	0	343	0	343	10	2237	24	1	2272	22	4	4	0	30	4611
% App. Total	10.2	88.5	1.2	0.1		0	0	100	0		0.4	98.5	1.1	0		73.3	13.3	13.3	0		
PHF	.838	.924	.750	.250	.940	.000	.000	.922	.000	.922	.500	.918	.545	.250	.913	.786	.500	.250	.000	.833	.945



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BLUEBONNET BLVD @ N MALL RD
BATON ROUGE, LOUISIANA

File Name : 15076-6 SAT BLUEBONNET BLVD @ N MALL RD
Site Code : 15076-6
Start Date : 10/6/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	BLUEBONNET BLVD Southbound				MALL RD Westbound				BLUEBONNET BLVD Northbound				MALL RD Eastbound				
Start Time	Left	Thru	Right	UTRNS	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
12:30	73	388	5	1	0	0	107	0	4	329	15	0	5	1	4	0	932
12:45	88	393	8	1	0	0	108	0	13	333	16	0	6	2	1	0	969
Total	161	781	13	2	0	0	215	0	17	662	31	0	11	3	5	0	1901
13:00	65	426	4	0	1	0	113	0	2	363	14	0	2	1	1	0	992
13:15	65	387	9	3	0	0	113	0	6	365	13	0	8	3	8	0	980
13:30	75	469	9	1	0	0	114	0	5	373	19	0	6	1	6	0	1078
13:45	68	376	7	3	0	0	107	0	4	348	15	0	2	1	2	0	933
Total	273	1658	29	7	1	0	447	0	17	1449	61	0	18	6	17	0	3983
14:00	76	385	4	0	0	0	108	0	2	323	15	0	14	1	1	0	929
14:15	56	377	5	3	0	0	112	0	6	368	11	0	8	1	4	0	951
Grand Total	566	3201	51	12	1	0	882	0	42	2802	118	0	51	11	27	0	7764
Apprch %	14.8	83.6	1.3	0.3	0.1	0	99.9	0	1.4	94.6	4	0	57.3	12.4	30.3	0	
Total %	7.3	41.2	0.7	0.2	0	0	11.4	0	0.5	36.1	1.5	0	0.7	0.1	0.3	0	
Automobiles	565	3159	51	12	1	0	879	0	42	2763	117	0	50	11	27	0	7677
% Automobiles	99.8	98.7	100	100	100	0	99.7	0	100	98.6	99.2	0	98	100	100	0	98.9
Trucks	1	40	0	0	0	0	3	0	0	35	1	0	1	0	0	0	81
% Trucks	0.2	1.2	0	0	0	0	0.3	0	0	1.2	0.8	0	2	0	0	0	1
Buses	0	2	0	0	0	0	0	0	0	4	0	0	0	0	0	0	6
% Buses	0	0.1	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0.1

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2911 Westfield Rd
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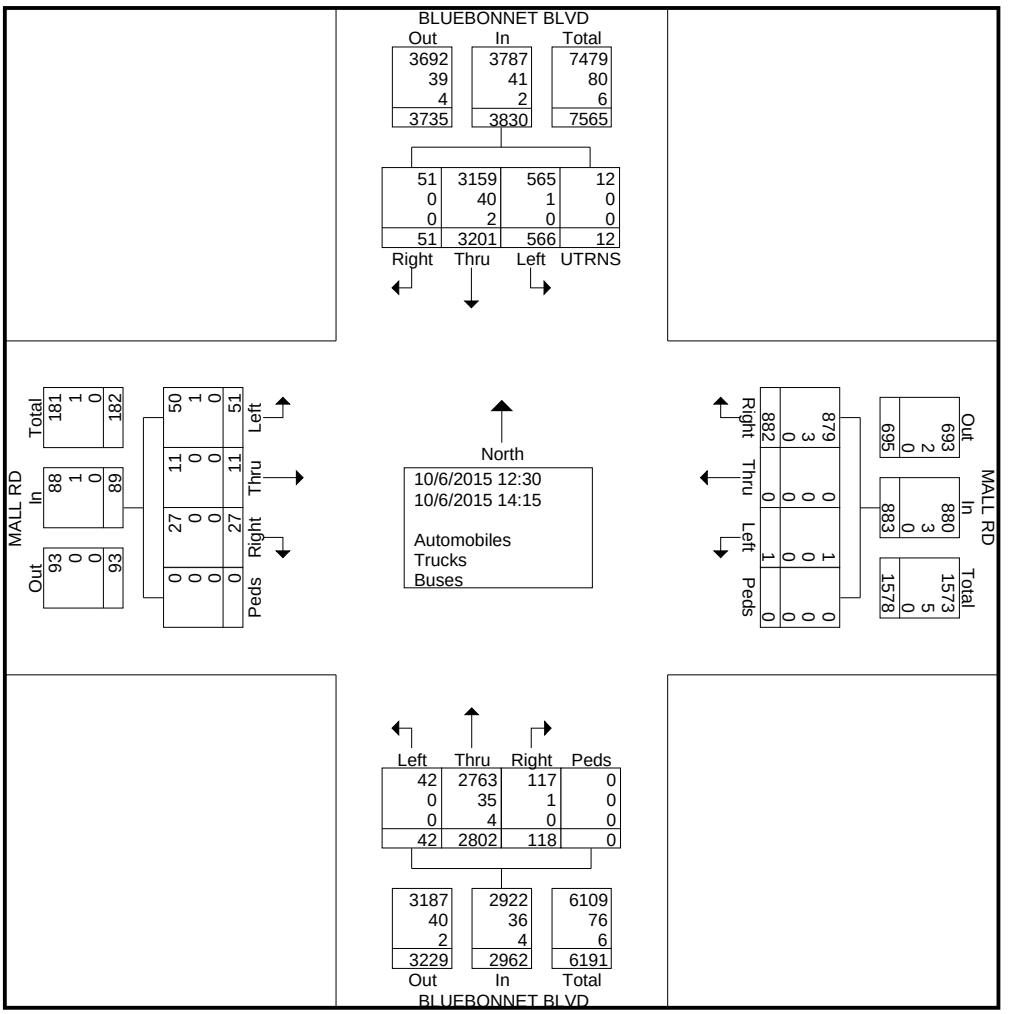
BLUEBONNET BLVD @ N MALL RD
BATON ROUGE, LOUISIANA

File Name : 15076-6 SAT BLUEBONNET BLVD @ N MALL RD
Site Code : 15076-6
Start Date : 10/6/2015
Page No : 2



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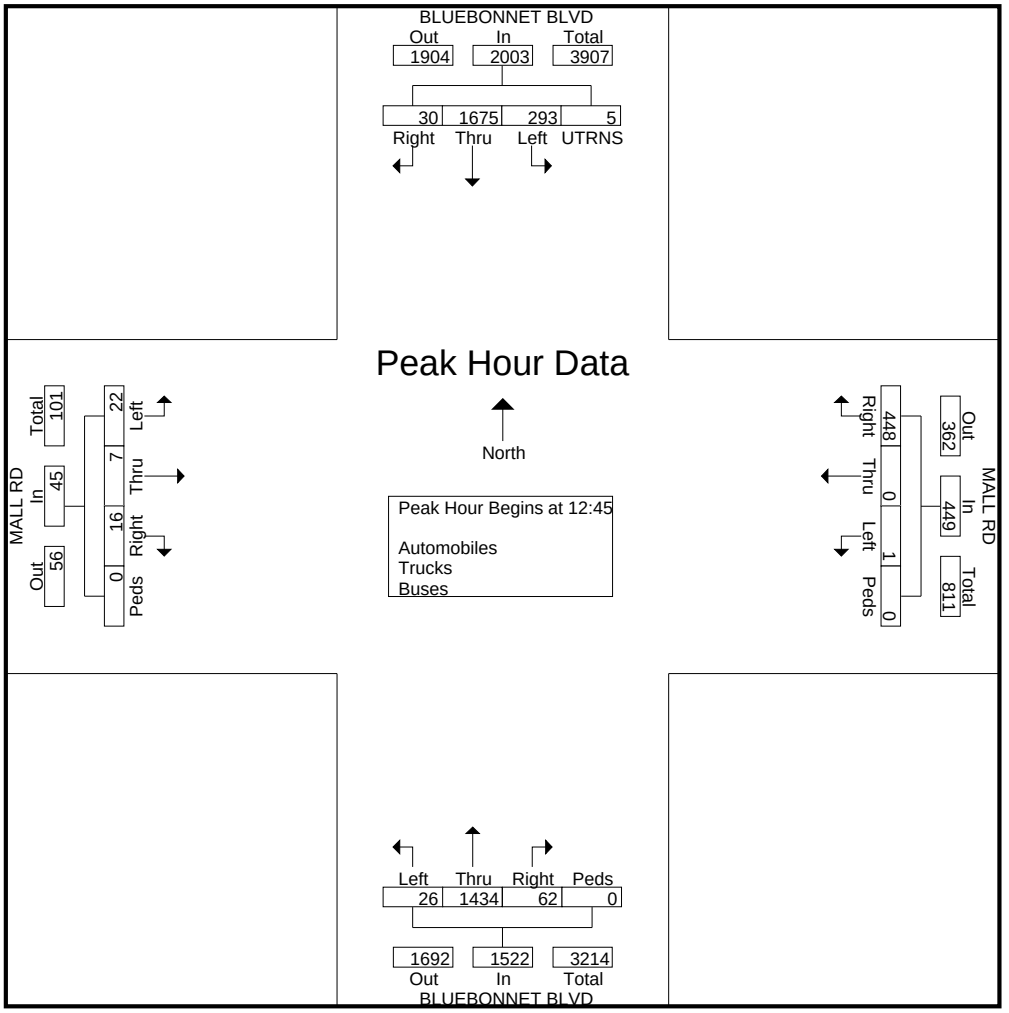
BLUEBONNET BLVD @ N MALL RD
BATON ROUGE, LOUISIANA

File Name : 15076-6 SAT BLUEBONNET BLVD @ N MALL RD
Site Code : 15076-6
Start Date : 10/6/2015
Page No : 3

	BLUEBONNET BLVD Southbound					MALL RD Westbound					BLUEBONNET BLVD Northbound					MALL RD Eastbound					
Start Time		Thru	Right	UTRNS	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:30 to 14:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:45																					
12:45	**88**	393	8	1	490	0	0	108	0	108	**13**	333	16	0	362	6	2	1	0	9	969
13:00	65	426	4	0	495	**1**	0	113	0	**114**	2	363	14	0	379	2	1	1	0	4	992
13:15	65	387	**9**	**3**	464	0	0	113	0	113	6	365	13	0	384	**8**	**3**	**8**	0	**19**	980
13:30	75	**469**	9	1	**554**	0	0	**114**	0	114	5	**373**	**19**	0	**397**	6	1	6	0	13	**1078**
Total Volume	293	1675	30	5	2003	1	0	448	0	449	26	1434	62	0	1522	22	7	16	0	45	4019
% App. Total	14.6	83.6	1.5	0.2		0.2	0	99.8	0		1.7	94.2	4.1	0		48.9	15.6	35.6	0		
PHF	.832	.893	.833	.417	.904	.250	.000	.982	.000	.985	.500	.961	.816	.000	.958	.688	.583	.500	.000	.592	.932



File Name: G:\DATA\2015\Private\15076\TMC'S Saturday\15076-6 SAT BLUEBONNET BLVD @ N MALL RD.ppd
Start Date: 10/6/2015
Start Time: 12:30:00 PM
Site Code: 15076-6
Comment 1: BLUEBONNET BLVD @ N MALL RD
Comment 2: BATON ROUGE, LOUISIANA
Comment 3:
Comment 4:

HGV % by Movement

	BLUEBONNET BLVD				MALL RD				BLUEBONNET BLVD				MALL RD			
Start Time	Left	Thru	Right	UTRNS	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
12:30	0%	2%	0%	0%	#DIV/0!	#DIV/0!	0%		0%	2%	0%		0%	0%	0%	
12:45	1%	1%	0%	0%	#DIV/0!	#DIV/0!	0%		0%	1%	0%		0%	0%	0%	
13:00	0%	2%	0%	#DIV/0!	0%	#DIV/0!	0%		0%	3%	0%		0%	0%	0%	
13:15	0%	1%	0%	0%	#DIV/0!	#DIV/0!	0%		0%	1%	0%		13%	0%	0%	
13:30	0%	1%	0%	0%	#DIV/0!	#DIV/0!	2%		0%	2%	5%		0%	0%	0%	
13:45	0%	1%	0%	0%	#DIV/0!	#DIV/0!	0%		0%	1%	0%		0%	0%	0%	
14:00	0%	2%	0%	#DIV/0!	#DIV/0!	#DIV/0!	0%		0%	1%	0%		0%	0%	0%	
14:15	0%	1%	0%	0%	#DIV/0!	#DIV/0!	1%		0%	1%	0%		0%	0%	0%	

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Bluebonnet Blvd @ I-10 EB Ramps
Baton Rouge, Louisiana

File Name : 15076-7 BLUEBONNET BLVD @ I-10 EB RAMPS
Site Code : 15076-7
Start Date : 10/8/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	BLUEBONNET BLVD Southbound				I-10 EB ON RAMP Westbound				BLUEBONNET BLVD Northbound				I-10 EB OFF RAMP Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00	40	292	0	0	0	0	0	0	0	226	36	0	45	1	195	0	835
07:15	44	353	0	0	0	0	0	0	0	336	45	0	73	0	197	0	1048
07:30	54	406	0	0	0	0	0	0	0	352	47	0	79	0	258	0	1196
07:45	42	434	0	0	0	0	0	0	0	382	41	0	88	2	250	0	1239
Total	180	1485	0	0	0	0	0	0	0	1296	169	0	285	3	900	0	4318
08:00	45	362	0	0	0	0	0	0	0	382	50	0	90	1	254	0	1184
08:15	43	361	0	0	0	0	0	0	0	333	53	0	61	1	213	0	1065
08:30	44	337	0	0	0	0	0	0	0	330	42	0	65	0	217	0	1035
08:45	50	305	0	0	0	0	0	0	0	283	53	0	55	0	225	0	971
Total	182	1365	0	0	0	0	0	0	0	1328	198	0	271	2	909	0	4255
09:00	41	265	0	0	0	0	0	0	0	276	47	0	50	0	187	0	866
09:15	50	266	0	0	0	0	0	0	0	297	54	0	36	0	156	0	859
09:30	39	290	0	0	0	0	0	1	0	275	61	0	32	2	181	0	881
09:45	43	240	0	0	0	0	0	0	0	315	49	0	39	2	181	0	869
Total	173	1061	0	0	0	0	0	1	0	1163	211	0	157	4	705	0	3475
BREAK																	
12:00	74	309	0	0	0	0	0	0	0	408	81	0	36	4	166	0	1078
12:15	83	255	0	0	0	0	0	0	1	414	84	0	39	1	178	0	1055
12:30	64	316	0	0	0	0	0	0	0	404	72	0	48	1	196	0	1101
12:45	57	294	0	0	0	0	0	0	0	437	75	0	37	2	221	0	1123
Total	278	1174	0	0	0	0	0	0	1	1663	312	0	160	8	761	0	4357
13:00	73	298	0	0	0	0	0	0	0	477	85	0	39	0	219	0	1191
13:15	59	265	0	0	0	0	0	0	0	419	89	0	37	0	191	0	1060
13:30	49	253	0	0	0	0	0	0	0	438	68	0	26	4	189	0	1027
13:45	72	270	0	0	0	0	0	0	0	451	75	0	46	3	188	0	1105
Total	253	1086	0	0	0	0	0	0	0	1785	317	0	148	7	787	0	4383
BREAK																	
15:00	75	256	0	0	0	0	0	1	0	460	123	0	41	4	163	0	1123
15:15	65	260	0	0	0	0	0	0	0	499	106	0	39	0	159	0	1128
15:30	103	244	0	0	0	0	0	0	0	516	123	0	24	1	136	0	1147
15:45	89	284	0	0	0	0	0	0	0	468	114	0	36	3	147	0	1141
Total	332	1044	0	0	0	0	0	1	0	1943	466	0	140	8	605	0	4539
16:00	109	265	0	0	0	0	0	0	0	489	142	0	24	3	129	1	1162
16:15	127	276	0	0	0	0	0	0	0	512	143	0	34	1	135	0	1228
16:30	132	265	0	0	0	0	0	0	0	522	135	1	40	1	162	0	1258
16:45	139	281	0	0	0	0	0	1	0	505	142	0	48	1	164	0	1281
Total	507	1087	0	0	0	0	0	1	0	2028	562	1	146	6	590	1	4929
17:00	131	327	0	0	0	0	0	0	0	534	147	0	47	0	140	0	1326
17:15	108	301	0	0	0	0	0	0	0	485	144	0	46	1	154	0	1239
17:30	105	273	0	0	0	0	0	0	0	537	101	0	46	0	173	0	1235
17:45	82	264	0	0	0	0	0	0	0	447	86	0	48	1	167	0	1095
Total	426	1165	0	0	0	0	0	0	0	2003	478	0	187	2	634	0	4895
Grand Total	2331	9467	0	0	0	0	0	3	1	13209	2713	1	1494	40	5891	1	35151
Apprch %	19.8	80.2	0	0	0	0	0	100	0	83	17	0	20.1	0.5	79.3	0	
Total %	6.6	26.9	0	0	0	0	0	0	0	37.6	7.7	0	4.3	0.1	16.8	0	
Automobiles	2308	9277	0	0	0	0	0	1	1	12962	2669	1	1480	39	5699	1	34438
% Automobiles	99	98	0	0	0	0	0	33.3	100	98.1	98.4	100	99.1	97.5	96.7	100	98
Trucks	20	163	0	0	0	0	0	2	0	194	42	0	13	1	164	0	599
% Trucks	0.9	1.7	0	0	0	0	0	66.7	0	1.5	1.5	0	0.9	2.5	2.8	0	1.7
Buses	3	27	0	0	0	0	0	0	0	53	2	0	1	0	28	0	114
% Buses	0.1	0.3	0	0	0	0	0	0	0	0.4	0.1	0	0.1	0	0.5	0	0.3

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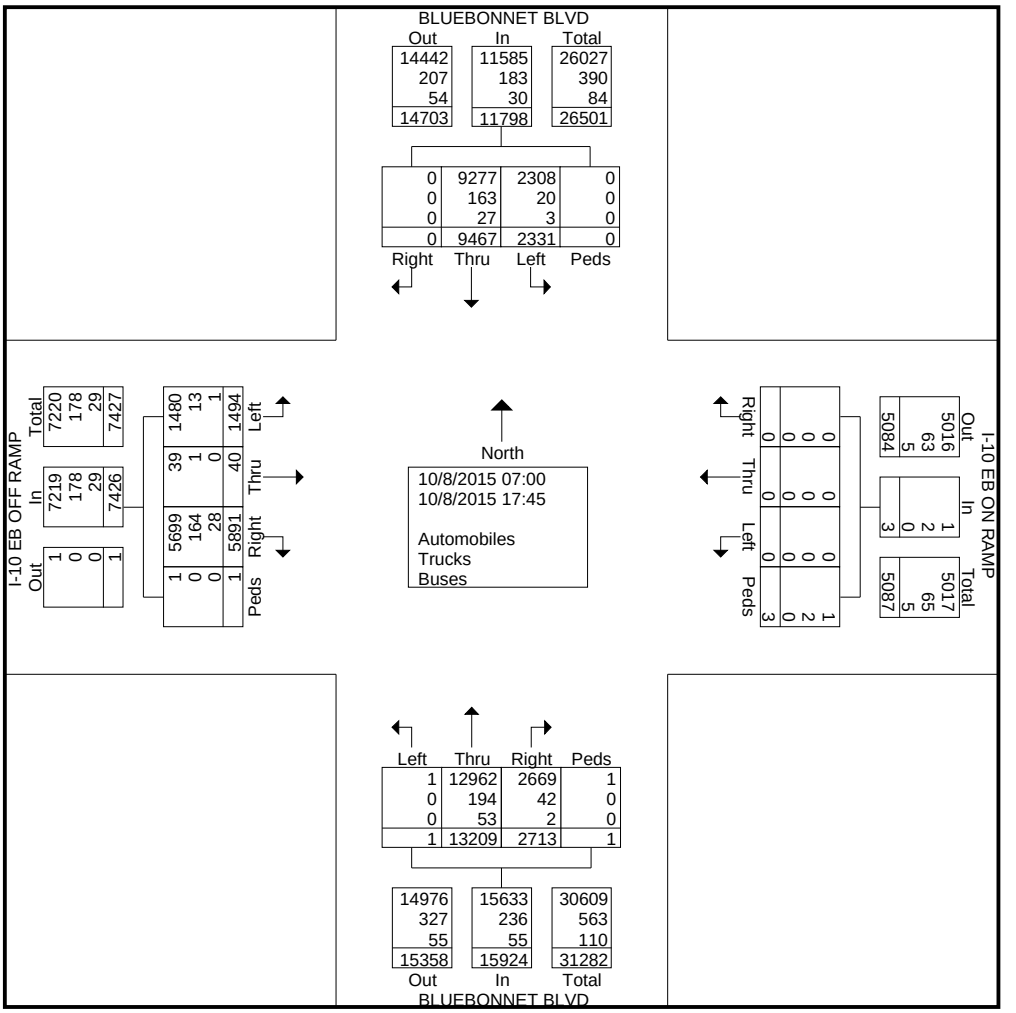

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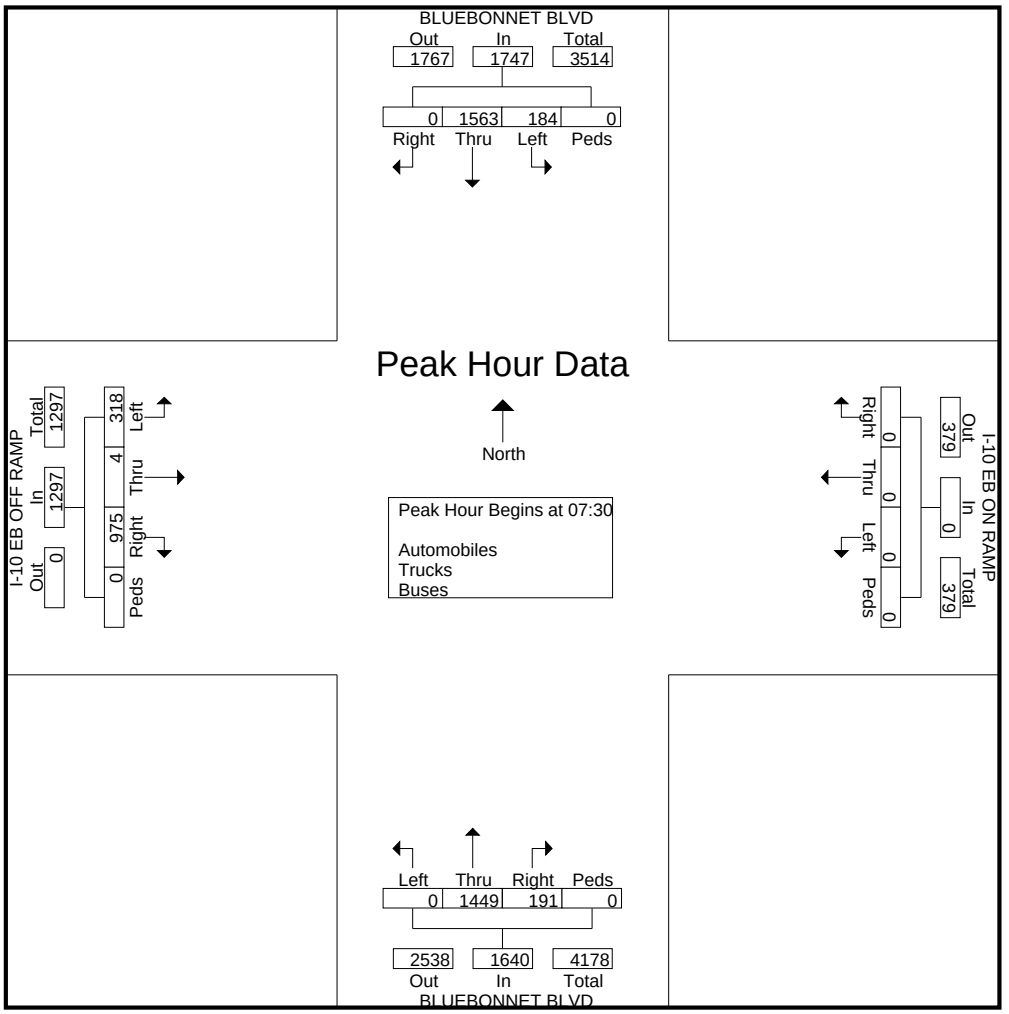
Bluebonnet Blvd @ I-10 EB Ramps
Baton Rouge, Louisiana

File Name : 15076-7 BLUEBONNET BLVD @ I-10 EB RAMPS
Site Code : 15076-7
Start Date : 10/8/2015
Page No : 3

	BLUEBONNET BLVD Southbound					I-10 EB ON RAMP Westbound					BLUEBONNET BLVD Northbound					I-10 EB OFF RAMP Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	**54**	406	0	0	460	0	0	0	0	0	0	352	47	0	399	79	0	**258**	0	337	1196
07:45	42	**434**	0	0	**476**	0	0	0	0	0	0	**382**	41	0	423	88	**2**	250	0	340	**1239**
08:00	45	362	0	0	407	0	0	0	0	0	0	382	50	0	**432**	**90**	1	254	0	**345**	1184
08:15	43	361	0	0	404	0	0	0	0	0	0	333	**53**	0	386	61	1	213	0	275	1065
Total Volume	184	1563	0	0	1747	0	0	0	0	0	0	1449	191	0	1640	318	4	975	0	1297	4684
% App. Total	10.5	89.5	0	0		0	0	0	0		0	88.4	11.6	0		24.5	0.3	75.2	0		
PHF	.852	.900	.000	.000	.918	.000	.000	.000	.000	.000	.000	.948	.901	.000	.949	.883	.500	.945	.000	.940	.945



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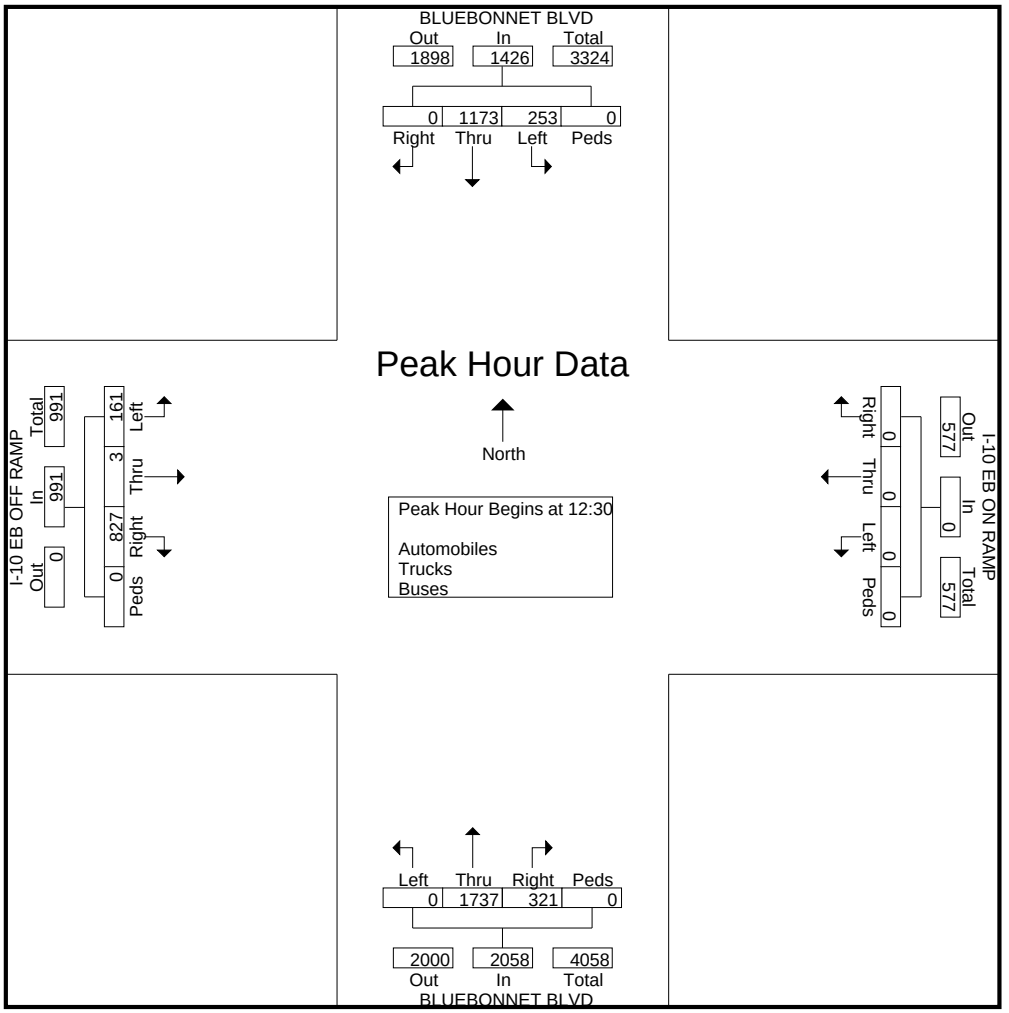
Bluebonnet Blvd @ I-10 EB Ramps
Baton Rouge, Louisiana

File Name : 15076-7 BLUEBONNET BLVD @ I-10 EB RAMPS
Site Code : 15076-7
Start Date : 10/8/2015
Page No : 4

	BLUEBONNET BLVD Southbound					I-10 EB ON RAMP Westbound					BLUEBONNET BLVD Northbound					I-10 EB OFF RAMP Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30																					
12:30	64	**316**	0	0	**380**	0	0	0	0	0	0	404	72	0	476	**48**	1	196	0	245	1101
12:45	57	294	0	0	351	0	0	0	0	0	0	437	75	0	512	37	**2**	**221**	0	**260**	1123
13:00	**73**	298	0	0	371	0	0	0	0	0	0	**477**	85	0	**562**	39	0	219	0	258	**1191**
13:15	59	265	0	0	324	0	0	0	0	0	0	419	**89**	0	508	37	0	191	0	228	1060
Total Volume	253	1173	0	0	1426	0	0	0	0	0	0	1737	321	0	2058	161	3	827	0	991	4475
% App. Total	17.7	82.3	0	0		0	0	0	0		0	84.4	15.6	0		16.2	0.3	83.5	0		
PHF	.866	.928	.000	.000	.938	.000	.000	.000	.000	.000	.000	.910	.902	.000	.915	.839	.375	.936	.000	.953	.939



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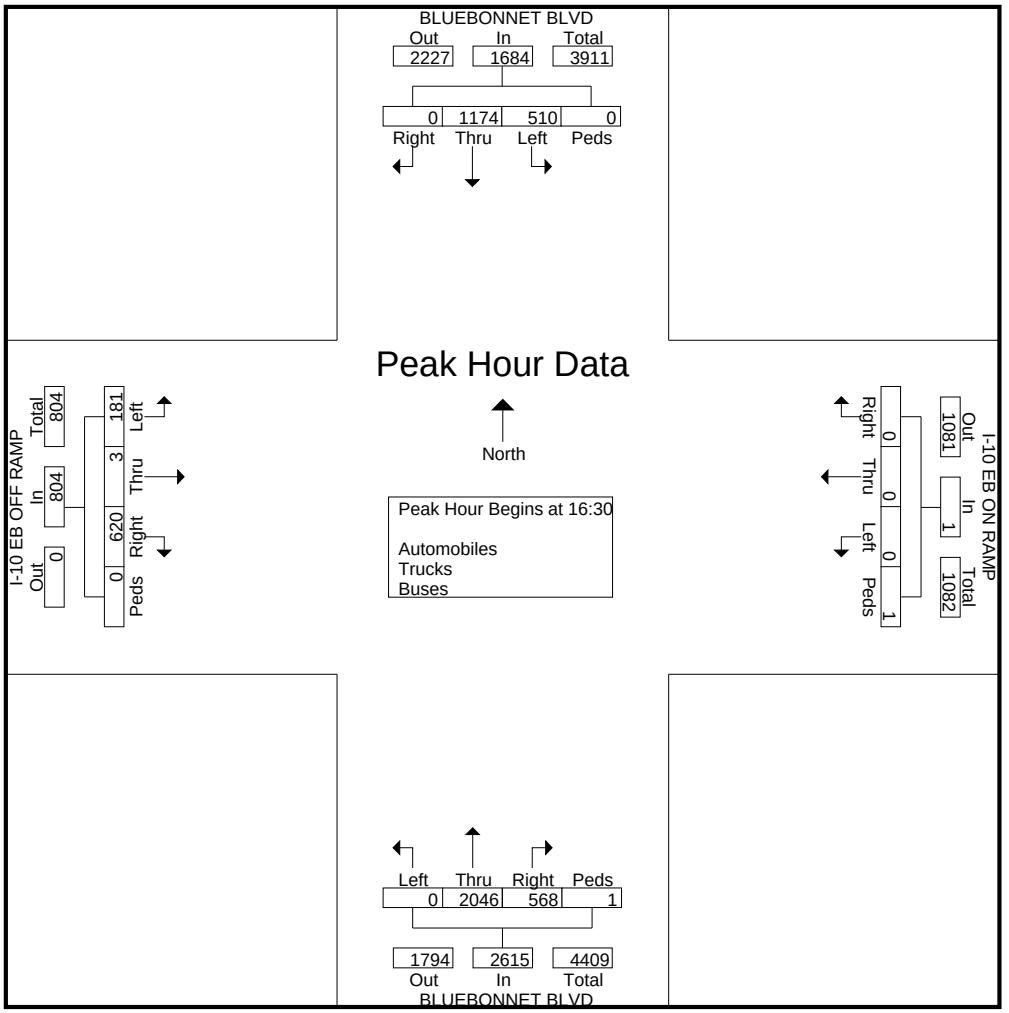
Bluebonnet Blvd @ I-10 EB Ramps
Baton Rouge, Louisiana

File Name : 15076-7 BLUEBONNET BLVD @ I-10 EB RAMPS
Site Code : 15076-7
Start Date : 10/8/2015
Page No : 5

	BLUEBONNET BLVD Southbound					I-10 EB ON RAMP Westbound					BLUEBONNET BLVD Northbound					I-10 EB OFF RAMP Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 14:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	132	265	0	0	397	0	0	0	0	0	0	522	135	**1**	658	40	**1**	162	0	203	1258
16:45	**139**	281	0	0	420	0	0	0	**1**	**1**	0	505	142	0	647	**48**	1	**164**	0	**213**	1281
17:00	131	**327**	0	0	**458**	0	0	0	0	0	0	**534**	**147**	0	**681**	47	0	140	0	187	**1326**
17:15	108	301	0	0	409	0	0	0	0	0	0	485	144	0	629	46	1	154	0	201	1239
Total Volume	510	1174	0	0	1684	0	0	0	1	1	0	2046	568	1	2615	181	3	620	0	804	5104
% App. Total	30.3	69.7	0	0		0	0	0	100		0	78.2	21.7	0		22.5	0.4	77.1	0		
PHF	.917	.898	.000	.000	.919	.000	.000	.000	.250	.250	.000	.958	.966	.250	.960	.943	.750	.945	.000	.944	.962



File Name: G:\DATA\2015\Private\15076\TMC's Thursday\15076-7 BLUEBONNET BLVD @ I-10 EB RAMPS.ppd
Start Date: 10/8/2015
Start Time: 7:00:00 AM
Site Code: 15076-7
Comment 1: Bluebonnet Blvd @ I-10 EB Ramps
Comment 2: Baton Rouge, Louisiana
Comment 3:
Comment 4:

HGV % by Movement

	BLUEBONNET BLVD				I-10 EB ON RAMP				BLUEBONNET BLVD				I-10 EB OFF RAMP			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00	3%	3%								2%	3%		0%	0%	7%	
07:15	5%	2%								3%	4%		0%	#DIV/0!	4%	
07:30	2%	1%								2%	0%		0%	#DIV/0!	3%	
07:45	5%	2%								3%	2%		0%	0%	1%	
08:00	4%	2%								2%	0%		0%	0%	2%	
08:15	2%	2%								4%	2%		2%	0%	2%	
08:30	0%	5%								2%	2%		0%	#DIV/0!	4%	
08:45	2%	3%								2%	6%		0%	#DIV/0!	1%	
09:00	0%	3%								3%	4%		2%	#DIV/0!	3%	
09:15	0%	3%								3%	2%		0%	#DIV/0!	7%	
09:30	0%	3%								2%	3%		3%	0%	6%	
09:45	5%	3%								1%	0%		8%	0%	7%	
10:00																
10:15																
10:30																
10:45																
11:00																
11:15																
11:30																
11:45																
12:00	0%	3%								2%	1%		3%	0%	5%	
12:15	2%	3%								2%	5%		3%	0%	4%	
12:30	2%	2%								2%	1%		2%	0%	3%	
12:45	0%	3%								3%	1%		0%	0%	4%	
13:00	1%	1%								2%	4%		3%	#DIV/0!	3%	
13:15	3%	2%								1%	1%		3%	#DIV/0!	4%	
13:30	0%	2%								3%	0%		0%	0%	1%	
13:45	0%	3%								1%	4%		2%	0%	3%	
14:00																
14:15																
14:30																
14:45																
15:00	0%	1%								2%	2%		0%	0%	4%	
15:15	3%	1%								1%	1%		0%	#DIV/0!	6%	
15:30	1%	1%								2%	2%		0%	0%	4%	
15:45	1%	2%								1%	0%		0%	0%	3%	
16:00	0%	2%								1%	1%		0%	33%	5%	
16:15	0%	1%								2%	1%		0%	0%	2%	
16:30	1%	2%								2%	1%		0%	0%	1%	
16:45	0%	1%								1%	1%		2%	0%	1%	
17:00	0%	1%								1%	1%		0%	#DIV/0!	1%	
17:15	0%	1%								1%	1%		0%	0%	3%	
17:30	0%	1%								1%	1%		0%	#DIV/0!	2%	
17:45	0%	1%								3%	1%		2%	0%	2%	

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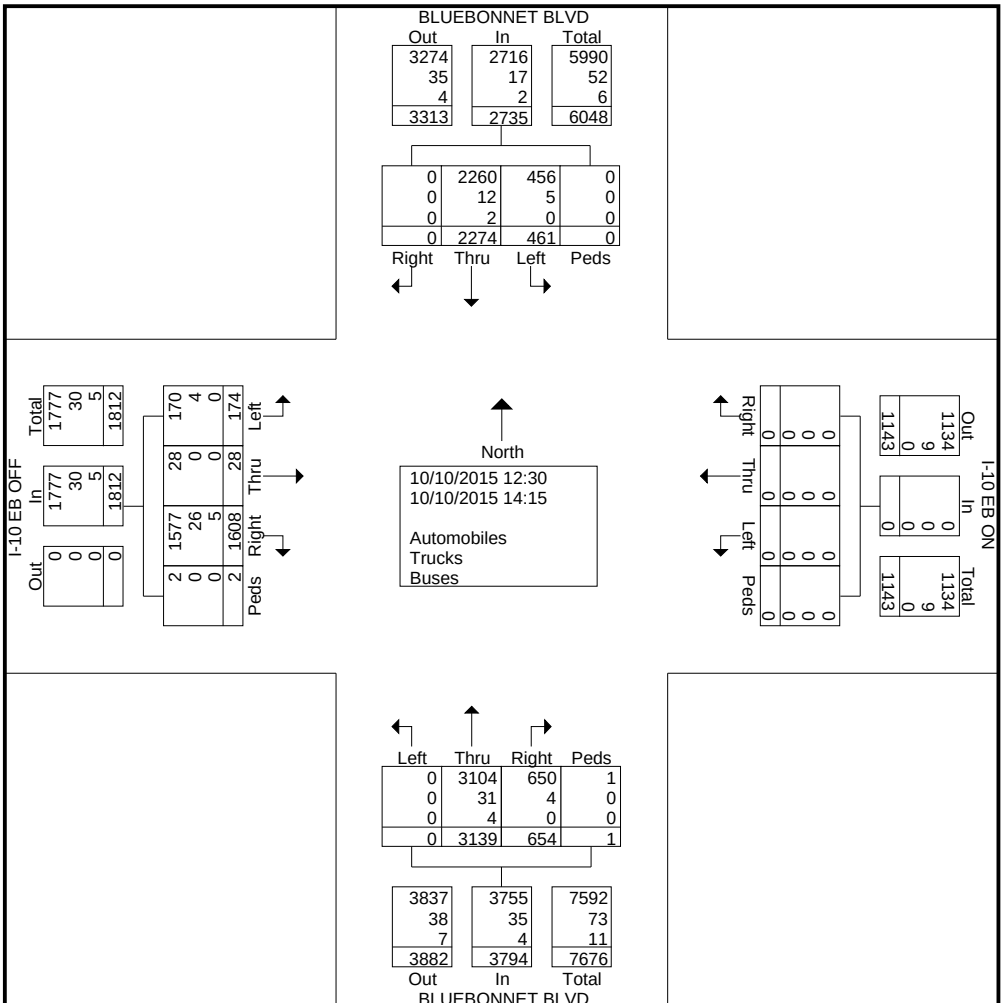
BLUEBONNET BLVD @ I-10 EB OFF RAMP
BATON ROUGE, LOUISIANA

File Name : 15076-7 SAT BLUEBONNET BLVD @ I-10 EB RAMPS
Site Code : 15076-7 B
Start Date : 10/10/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	BLUEBONNET BLVD Southbound				I-10 EB ON Westbound				BLUEBONNET BLVD Northbound				I-10 EB OFF Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
12:30	56	297	0	0	0	0	0	0	0	411	83	1	23	7	202	0	1080
12:45	54	306	0	0	0	0	0	0	0	388	82	0	23	4	232	0	1089
Total	110	603	0	0	0	0	0	0	0	799	165	1	46	11	434	0	2169
13:00	50	264	0	0	0	0	0	0	0	362	64	0	20	4	191	0	955
13:15	49	271	0	0	0	0	0	0	0	411	59	0	23	4	195	0	1012
13:30	75	287	0	0	0	0	0	0	0	386	101	0	21	1	172	0	1043
13:45	62	276	0	0	0	0	0	0	0	399	97	0	25	5	200	0	1064
Total	236	1098	0	0	0	0	0	0	0	1558	321	0	89	14	758	0	4074
14:00	65	284	0	0	0	0	0	0	0	423	76	0	21	1	208	1	1079
14:15	50	289	0	0	0	0	0	0	0	359	92	0	18	2	208	1	1019
Grand Total	461	2274	0	0	0	0	0	0	0	3139	654	1	174	28	1608	2	8341
Apprch %	16.9	83.1	0	0	0	0	0	0	0	82.7	17.2	0	9.6	1.5	88.7	0.1	
Total %	5.5	27.3	0	0	0	0	0	0	0	37.6	7.8	0	2.1	0.3	19.3	0	
Automobiles	456	2260	0	0	0	0	0	0	0	3104	650	1	170	28	1577	2	8248
% Automobiles	98.9	99.4	0	0	0	0	0	0	0	98.9	99.4	100	97.7	100	98.1	100	98.9
Trucks	5	12	0	0	0	0	0	0	0	31	4	0	4	0	26	0	82
% Trucks	1.1	0.5	0	0	0	0	0	0	0	1	0.6	0	2.3	0	1.6	0	1
Buses	0	2	0	0	0	0	0	0	0	4	0	0	0	0	5	0	11
% Buses	0	0.1	0	0	0	0	0	0	0	0.1	0	0	0	0	0.3	0	0.1



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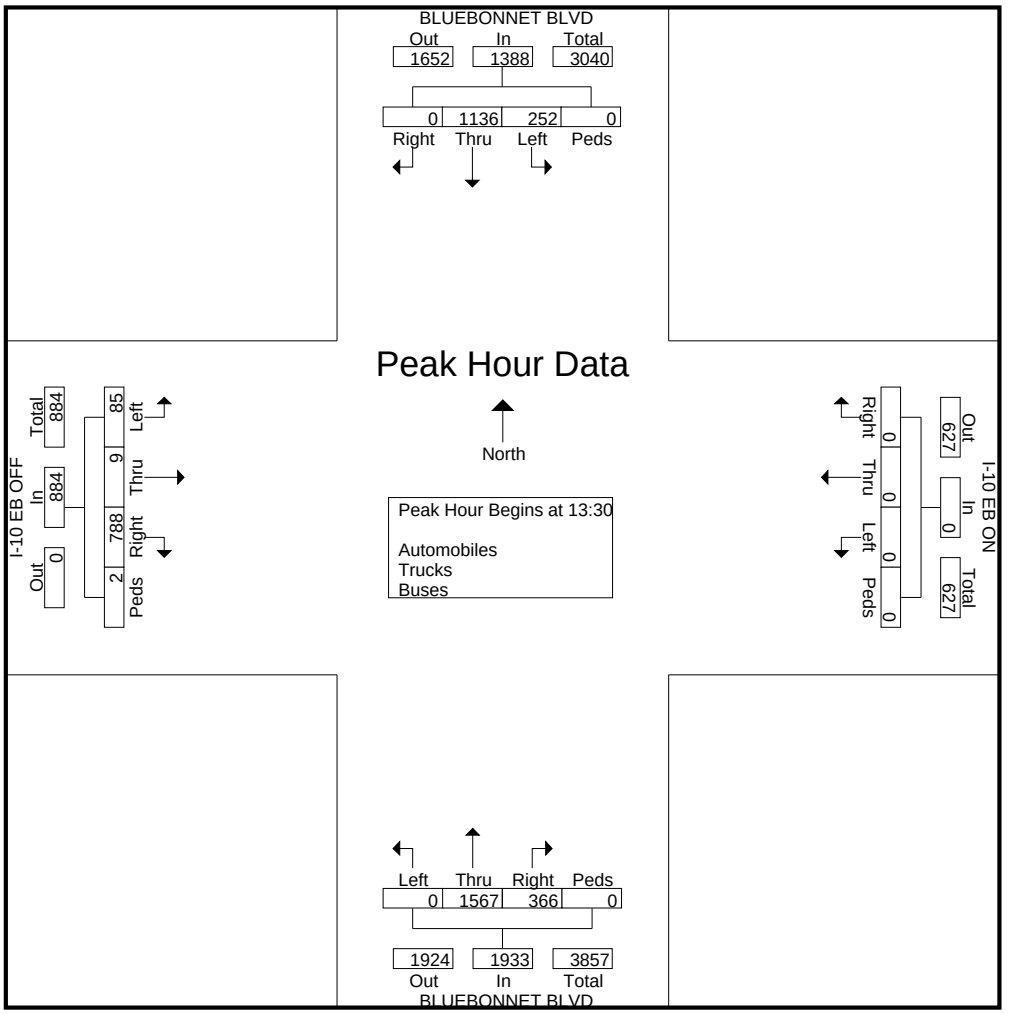
BLUEBONNET BLVD @ I-10 EB OFF RAMP
BATON ROUGE, LOUISIANA

File Name : 15076-7 SAT BLUEBONNET BLVD @ I-10 EB RAMPS
Site Code : 15076-7 B
Start Date : 10/10/2015

	BLUEBONNET BLVD Southbound					I-10 EB ON Westbound					BLUEBONNET BLVD Northbound					I-10 EB OFF Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:30 to 14:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 13:30																					
13:30	**75**	287	0	0	**362**	0	0	0	0	0	0	386	**101**	0	487	21	1	172	0	194	1043
13:45	62	276	0	0	338	0	0	0	0	0	0	399	97	0	496	**25**	**5**	200	0	230	1064
14:00	65	284	0	0	349	0	0	0	0	0	0	**423**	76	0	**499**	21	1	**208**	**1**	**231**	**1079**
14:15	50	**289**	0	0	339	0	0	0	0	0	0	359	92	0	451	18	2	208	1	229	1019
Total Volume	252	1136	0	0	1388	0	0	0	0	0	0	1567	366	0	1933	85	9	788	2	884	4205
% App. Total	18.2	81.8	0	0		0	0	0	0		0	81.1	18.9	0		9.6	1	89.1	0.2		
PHF	.840	.983	.000	.000	.959	.000	.000	.000	.000	.000	.000	.926	.906	.000	.968	.850	.450	.947	.500	.957	.974



File Name: G:\DATA\2015\Private\15076\15076-7 SAT BLUEBONNET BLVD @ I-10 EB RAMPS.ppd
Start Date: 10/10/2015
Start Time: 12:30:00 PM
Site Code: 15076-7 B
Comment 1: BLUEBONNET BLVD @ I-10 EB OFF RAMP
Comment 2: BATON ROUGE, LOUISIANA
Comment 3:
Comment 4:

HGV % by Movement

	BLUEBONNET BLVD				I-10 EB ON				BLUEBONNET BLVD				I-10 EB OFF			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
12:30	2%	0%								1%	1%		4%	0%	0%	
12:45	2%	0%								1%	1%		0%	0%	1%	
13:00	2%	0%								1%	0%		10%	0%	3%	
13:15	2%	1%								1%	0%		0%	0%	1%	
13:30	1%	0%								1%	1%		0%	0%	1%	
13:45	0%	1%								1%	0%		0%	0%	3%	
14:00	0%	1%								2%	0%		5%	0%	3%	
14:15	0%	1%								1%	1%		0%	0%	3%	

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Bluebonnet Blvd @ I-10 WB Ramps
Baton Rouge, Louisiana

File Name : 15076-8 BLUEBONNET BLVD @ I-10 WB RAMPS
Site Code : 15076-8
Start Date : 10/8/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	BLUEBONNET BLVD Southbound				I-10 WB OFF Westbound				BLUEBONNET BLVD Northbound				I 10 WB ON Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	UTRNS	Left	Thru	Right	Peds	Int. Total
07:00	0	273	75	0	86	2	90	0	74	196	0	0	0	0	0	0	796
07:15	0	309	71	0	93	1	119	0	126	257	0	0	0	0	0	0	976
07:30	0	347	64	0	113	2	127	0	115	308	0	0	0	0	0	0	1076
07:45	0	365	64	0	112	0	140	1	142	354	1	0	0	0	0	0	1179
Total	0	1294	274	0	404	5	476	1	457	1115	1	0	0	0	0	0	4027
08:00	0	319	55	0	94	0	153	0	107	370	0	0	0	0	0	0	1098
08:15	0	304	57	0	88	6	146	0	115	285	0	0	0	0	0	0	1001
08:30	0	286	48	0	88	0	120	0	86	284	0	0	0	0	0	1	913
08:45	0	297	50	0	67	1	85	0	78	269	0	0	0	0	0	0	847
Total	0	1206	210	0	337	7	504	0	386	1208	0	0	0	0	0	1	3859
09:00	0	254	38	0	55	0	58	0	101	230	0	0	0	0	0	0	736
09:15	0	264	40	0	58	2	68	0	108	228	0	0	0	0	0	0	768
09:30	0	246	41	0	60	1	52	0	95	221	0	0	0	0	0	0	716
09:45	0	227	34	0	71	2	69	0	111	223	0	0	0	0	0	0	737
Total	0	991	153	0	244	5	247	0	415	902	0	0	0	0	0	0	2957
BREAK																	
12:00	0	307	37	0	47	1	85	0	139	320	0	0	0	0	0	0	936
12:15	0	306	41	0	59	2	81	0	157	299	0	1	0	0	0	0	946
12:30	0	292	33	0	54	1	88	0	154	323	0	0	0	0	0	0	945
12:45	0	319	41	0	66	1	91	0	185	292	0	2	0	0	0	0	997
Total	0	1224	152	0	226	5	345	0	635	1234	0	3	0	0	0	0	3824
13:00	0	244	44	0	53	1	84	0	189	327	0	1	0	0	0	0	943
13:15	0	265	41	0	68	3	81	0	177	274	0	2	0	0	0	0	911
13:30	0	280	40	0	57	1	70	0	180	320	0	1	0	0	0	0	949
13:45	0	282	42	0	65	0	75	0	171	313	0	2	3	0	0	0	953
Total	0	1071	167	0	243	5	310	0	717	1234	0	6	3	0	0	0	3756
BREAK																	
15:00	0	272	54	0	46	3	60	0	178	334	0	2	0	0	0	0	949
15:15	0	261	49	0	53	1	53	0	196	341	0	1	0	0	0	0	955
15:30	0	306	55	0	39	2	79	0	189	352	0	2	0	0	0	0	1024
15:45	0	317	56	0	46	4	78	0	180	327	0	1	0	0	0	0	1009
Total	0	1156	214	0	184	10	270	0	743	1354	0	6	0	0	0	0	3937
16:00	0	344	67	0	39	5	75	0	183	346	0	1	0	0	0	1	1061
16:15	0	375	58	0	46	1	87	0	194	359	0	1	0	0	0	0	1121
16:30	0	361	81	0	46	2	89	0	199	361	0	0	0	0	0	1	1140
16:45	0	385	76	0	49	2	80	1	197	382	0	1	0	0	0	0	1173
Total	0	1465	282	0	180	10	331	1	773	1448	0	3	0	0	0	2	4495
17:00	0	403	81	0	39	2	87	0	207	375	0	2	0	0	0	1	1197
17:15	0	348	59	0	52	4	109	0	190	374	0	2	0	0	0	1	1139
17:30	0	343	55	0	46	2	96	0	186	390	0	0	0	0	0	0	1118
17:45	0	285	32	0	56	0	86	0	169	319	0	1	0	0	0	0	948
Total	0	1379	227	0	193	8	378	0	752	1458	0	5	0	0	0	2	4402
Grand Total	0	9786	1679	0	2011	55	2861	2	4878	9953	1	23	3	0	0	5	31257
Apprch %	0	85.4	14.6	0	40.8	1.1	58	0	32.8	67	0	0.2	37.5	0	0	62.5	
Total %	0	31.3	5.4	0	6.4	0.2	9.2	0	15.6	31.8	0	0.1	0	0	0	0	
Automobiles	0	9600	1662	0	1954	54	2809	1	4745	9782	0	23	1	0	0	1	30632
% Automobiles	0	98.1	99	0	97.2	98.2	98.2	50	97.3	98.3	0	100	33.3	0	0	20	98
Trucks	0	153	14	0	56	1	41	1	112	132	1	0	2	0	0	4	517
% Trucks	0	1.6	0.8	0	2.8	1.8	1.4	50	2.3	1.3	100	0	66.7	0	0	80	1.7
Buses	0	33	3	0	1	0	11	0	21	39	0	0	0	0	0	0	108
% Buses	0	0.3	0.2	0	0	0	0.4	0	0.4	0.4	0	0	0	0	0	0	0.3

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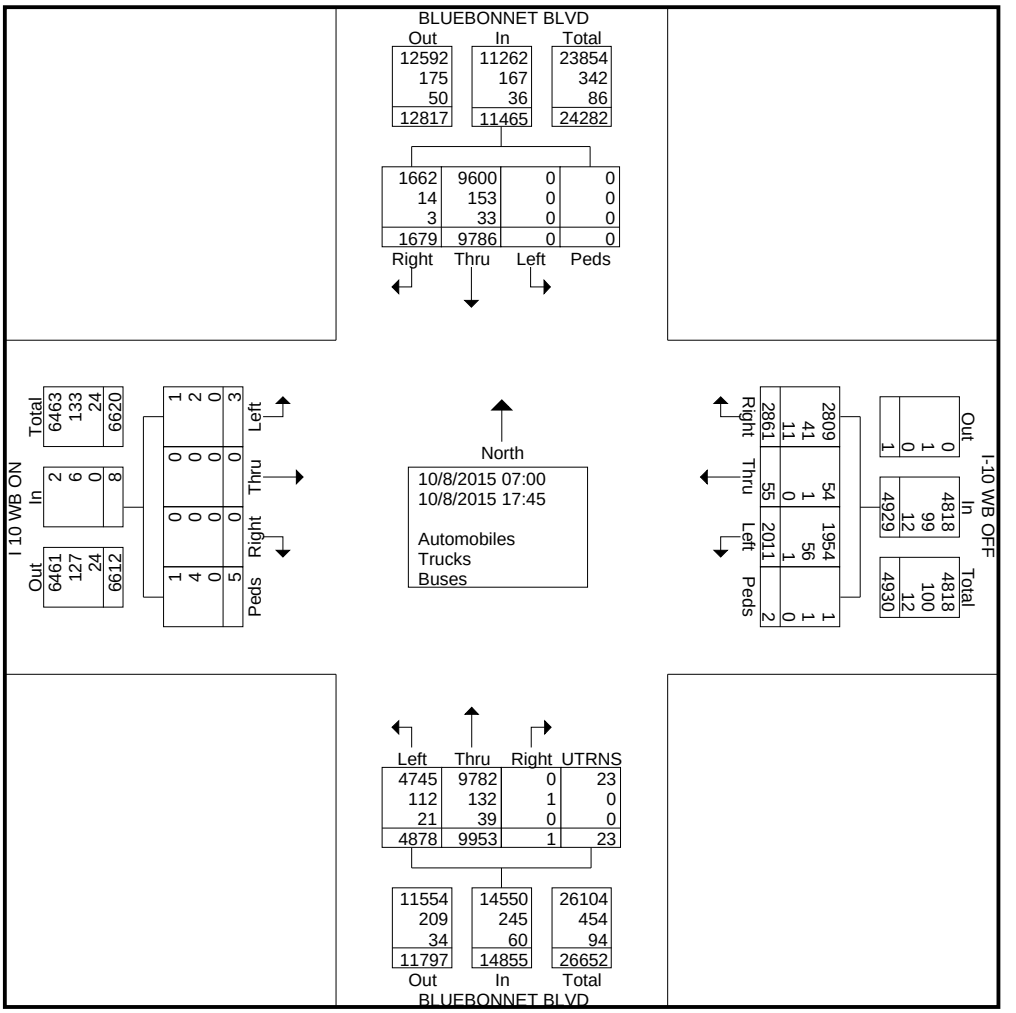

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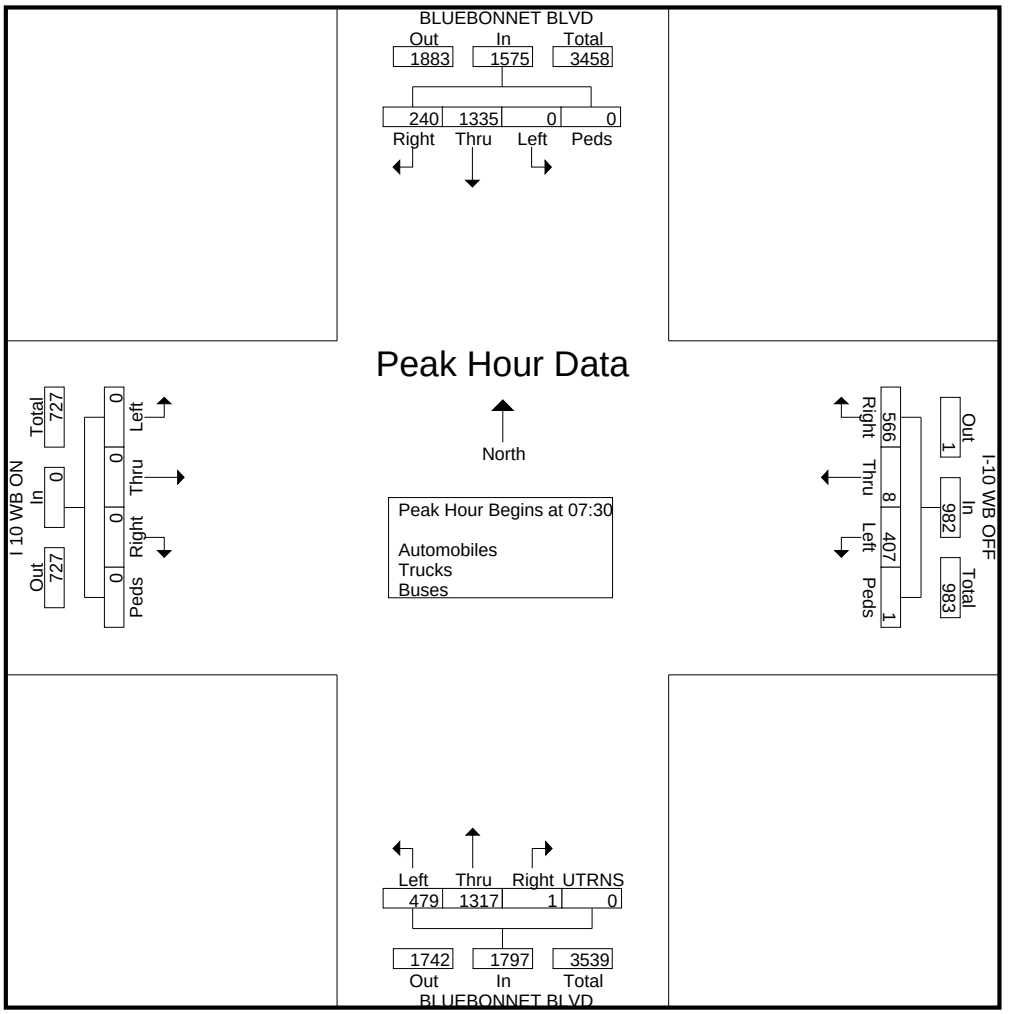
Bluebonnet Blvd @ I-10 WB Ramps
Baton Rouge, Louisiana

File Name : 15076-8 BLUEBONNET BLVD @ I-10 WB RAMPS
Site Code : 15076-8
Start Date : 10/8/2015
Page No : 3

	BLUEBONNET BLVD Southbound					I-10 WB OFF Westbound					BLUEBONNET BLVD Northbound					I 10 WB ON Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	UTRNS	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	0	347	**64**	0	411	**113**	2	127	0	242	115	308	0	0	423	0	0	0	0	0	1076
07:45	0	**365**	64	0	**429**	112	0	140	**1**	**253**	**142**	354	**1**	0	**497**	0	0	0	0	0	**1179**
08:00	0	319	55	0	374	94	0	**153**	0	247	107	**370**	0	0	477	0	0	0	0	0	1098
08:15	0	304	57	0	361	88	**6**	146	0	240	115	285	0	0	400	0	0	0	0	0	1001
Total Volume	0	1335	240	0	1575	407	8	566	1	982	479	1317	1	0	1797	0	0	0	0	0	4354
% App. Total	0	84.8	15.2	0		41.4	0.8	57.6	0.1		26.7	73.3	0.1	0		0	0	0	0		
PHF	.000	.914	.938	.000	.918	.900	.333	.925	.250	.970	.843	.890	.250	.000	.904	.000	.000	.000	.000	.000	.923



Southern Traffic Services, Inc.

2911 Westfield Rd
Gulf Breeze, FL 32563
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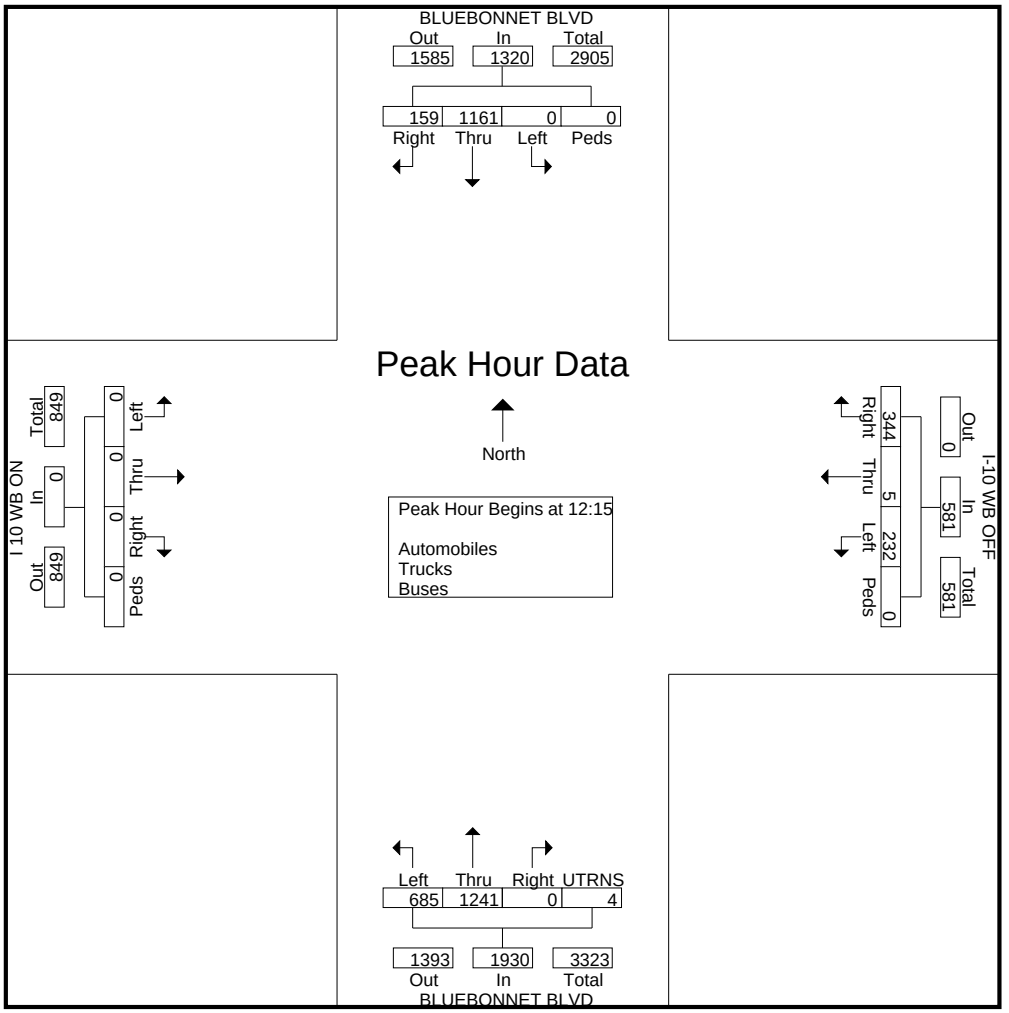
Bluebonnet Blvd @ I-10 WB Ramps
Baton Rouge, Louisiana

File Name : 15076-8 BLUEBONNET BLVD @ I-10 WB RAMPS
Site Code : 15076-8
Start Date : 10/8/2015
Page No : 4

	BLUEBONNET BLVD Southbound					I-10 WB OFF Westbound					BLUEBONNET BLVD Northbound					I 10 WB ON Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	UTRNS	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:15																					
12:15	0	306	41	0	347	59	**2**	81	0	142	157	299	0	1	457	0	0	0	0	0	946
12:30	0	292	33	0	325	54	1	88	0	143	154	323	0	0	477	0	0	0	0	0	945
12:45	0	**319**	41	0	**360**	**66**	1	**91**	0	**158**	185	292	0	**2**	479	0	0	0	0	0	**997**
13:00	0	244	**44**	0	288	53	1	84	0	138	**189**	**327**	0	1	**517**	0	0	0	0	0	943
Total Volume	0	1161	159	0	1320	232	5	344	0	581	685	1241	0	4	1930	0	0	0	0	0	3831
% App. Total	0	88	12	0		39.9	0.9	59.2	0		35.5	64.3	0	0.2		0	0	0	0		
PHF	.000	.910	.903	.000	.917	.879	.625	.945	.000	.919	.906	.949	.000	.500	.933	.000	.000	.000	.000	.000	.961



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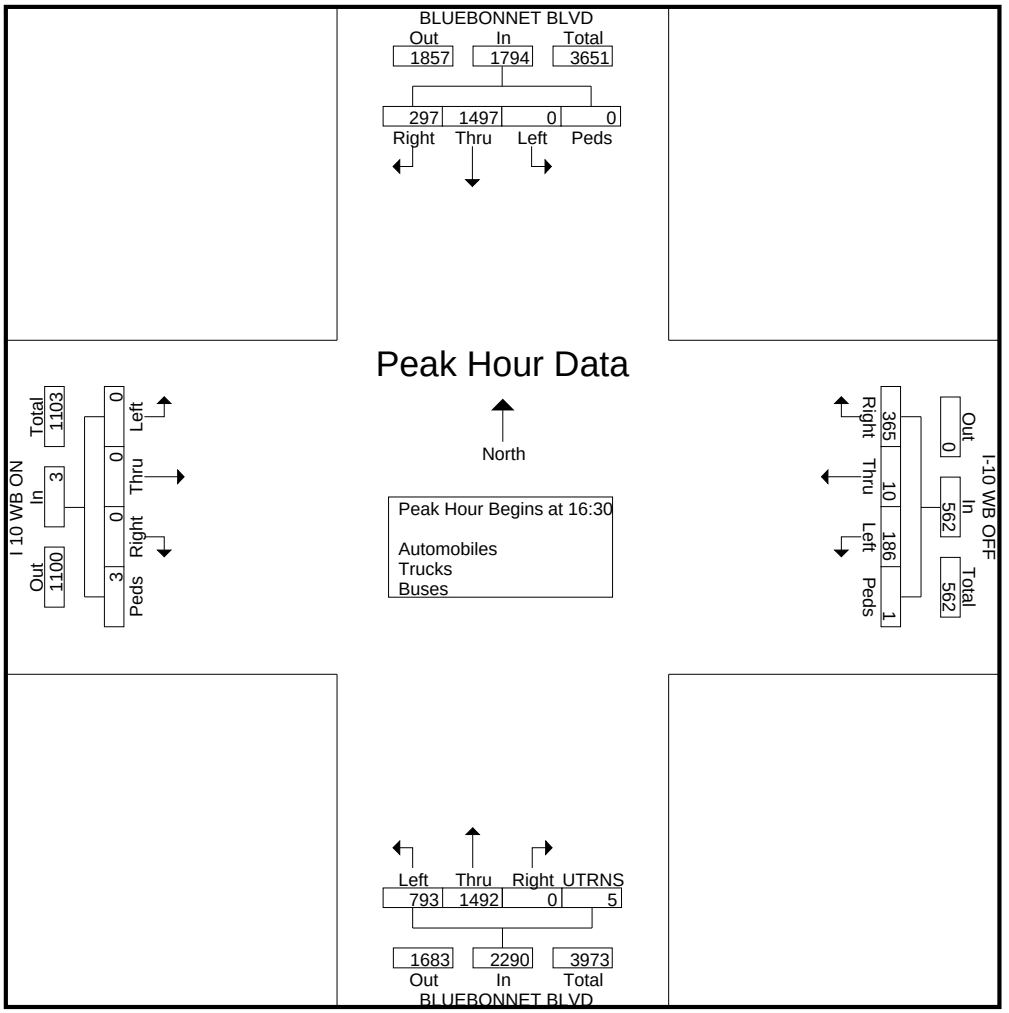
Bluebonnet Blvd @ I-10 WB Ramps
Baton Rouge, Louisiana

File Name : 15076-8 BLUEBONNET BLVD @ I-10 WB RAMPS
Site Code : 15076-8
Start Date : 10/8/2015
Page No : 5

	BLUEBONNET BLVD Southbound					I-10 WB OFF Westbound					BLUEBONNET BLVD Northbound					I 10 WB ON Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	UTRNS	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 14:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	0	361	**81**	0	442	46	2	89	0	137	199	361	0	0	560	0	0	0	**1**	**1**	1140
16:45	0	385	76	0	461	49	2	80	**1**	132	197	**382**	0	1	580	0	0	0	0	0	1173
17:00	0	**403**	81	0	**484**	39	2	87	0	128	**207**	375	0	**2**	**584**	0	0	0	1	1	**1197**
17:15	0	348	59	0	407	**52**	**4**	**109**	0	**165**	190	374	0	2	566	0	0	0	1	1	1139
Total Volume	0	1497	297	0	1794	186	10	365	1	562	793	1492	0	5	2290	0	0	0	3	3	4649
% App. Total	0	83.4	16.6	0		33.1	1.8	64.9	0.2		34.6	65.2	0	0.2		0	0	0	100		
PHF	.000	.929	.917	.000	.927	.894	.625	.837	.250	.852	.958	.976	.000	.625	.980	.000	.000	.000	.750	.750	.971



File Name: G:\DATA\2015\Private\15076\TMC's Thursday\15076-8 BLUEBONNET BLVD @ I-10 WB RAMPS.ppd
Start Date: 10/8/2015
Start Time: 7:00:00 AM
Site Code: 15076-8
Comment 1: Bluebonnet Blvd @ I-10 WB Ramps
Comment 2: Baton Rouge, Louisiana
Comment 3:
Comment 4:

HGV % by Movement

	BLUEBONNET BLVD				I-10 WB OFF				BLUEBONNET BLVD				I 10 WB ON			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	UTRNS	Left	Thru	Right	Peds
07:00		3%	1%		1%	0%	1%		3%	2%		#DIV/0!				
07:15		3%	0%		3%	0%	1%		5%	2%		#DIV/0!				
07:30		2%	2%		0%	0%	1%		3%	2%		#DIV/0!				
07:45		2%	0%		1%	#DIV/0!	1%		3%	3%		#DIV/0!				
08:00		4%	0%		1%	#DIV/0!	3%		5%	2%		#DIV/0!				
08:15		2%	4%		1%	17%	1%		9%	1%		#DIV/0!				
08:30		5%	0%		5%	#DIV/0!	1%		2%	1%		#DIV/0!				
08:45		3%	0%		3%	0%	0%		3%	3%		#DIV/0!				
09:00		2%	0%		11%	#DIV/0!	3%		5%	1%		#DIV/0!				
09:15		2%	0%		3%	0%	1%		7%	2%		#DIV/0!				
09:30		2%	0%		7%	0%	2%		3%	2%		#DIV/0!				
09:45		3%	0%		4%	0%	0%		0%	2%		#DIV/0!				
10:00																
10:15																
10:30																
10:45																
11:00																
11:15																
11:30																
11:45																
12:00		2%	3%		9%	0%	5%		2%	3%		#DIV/0!				
12:15		2%	5%		7%	0%	0%		3%	2%		0%				
12:30		1%	0%		4%	0%	1%		2%	2%		#DIV/0!				
12:45		3%	2%		3%	0%	1%		4%	3%		0%				
13:00		2%	0%		4%	0%	2%		2%	3%		0%				
13:15		1%	2%		3%	0%	4%		3%	1%		0%				
13:30		1%	3%		4%	0%	4%		3%	3%		0%				
13:45		2%	0%		2%	#DIV/0!	1%		2%	1%		0%				
14:00																
14:15																
14:30																
14:45																
15:00		1%	2%		2%	0%	3%		2%	1%		0%				
15:15		2%	2%		0%	0%	6%		0%	1%		0%				
15:30		2%	0%		0%	0%	4%		3%	2%		0%				
15:45		1%	0%		4%	0%	3%		2%	2%		0%				
16:00		1%	1%		0%	0%	0%		2%	0%		0%				
16:15		1%	0%		4%	0%	3%		2%	1%		0%				
16:30		1%	1%		2%	0%	0%		2%	2%		#DIV/0!				
16:45		1%	0%		6%	0%	0%		2%	1%		0%				
17:00		1%	1%		0%	0%	2%		3%	1%		0%				
17:15		0%	2%		2%	0%	0%		2%	0%		0%				
17:30		1%	2%		0%	0%	3%		2%	1%		#DIV/0!				
17:45		1%	0%		0%	#DIV/0!	5%		5%	3%		0%				

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BLUEBONNET BLVD @ I-10 WB RAMPS
BATON ROUGE, LOUISIANA

File Name : 15076-8 SAT BLUEBONNET @ I-10 WB RAMPS
Site Code : 15076-8
Start Date : 10/10/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	BLUEBONNET BLVD Southbound				I-10 WB OFF RAMP Westbound				BLUEBONNET BLVD Northbound				I-10 WB ON RAMP Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	UTRNS	Left	Thru	Right	Peds	Int. Total
12:30	0	288	51	0	58	1	68	1	182	269	0	2	0	0	0	0	920
12:45	0	305	34	0	62	1	81	0	166	258	0	0	0	0	0	0	907
Total	0	593	85	0	120	2	149	1	348	527	0	2	0	0	0	0	1827
13:00	0	266	39	0	45	0	69	0	156	225	0	1	0	0	0	0	801
13:15	0	286	39	0	48	3	64	0	170	241	0	1	0	0	0	0	852
13:30	0	309	24	0	45	2	86	0	156	260	0	1	0	0	0	0	883
13:45	0	301	22	0	39	2	69	0	174	257	0	1	0	0	0	0	865
Total	0	1162	124	0	177	7	288	0	656	983	0	4	0	0	0	0	3401
14:00	0	282	34	0	52	1	64	0	172	255	0	2	0	0	0	0	862
14:15	0	276	35	0	54	2	83	1	180	200	0	2	0	0	0	0	833
Grand Total	0	2313	278	0	403	12	584	2	1356	1965	0	10	0	0	0	0	6923
Apprch %	0	89.3	10.7	0	40.3	1.2	58.3	0.2	40.7	59	0	0.3	0	0	0	0	
Total %	0	33.4	4	0	5.8	0.2	8.4	0	19.6	28.4	0	0.1	0	0	0	0	
Automobiles	0	2302	278	0	401	12	581	2	1335	1948	0	10	0	0	0	0	6869
% Automobiles	0	99.5	100	0	99.5	100	99.5	100	98.5	99.1	0	100	0	0	0	0	99.2
Trucks	0	10	0	0	1	0	3	0	20	15	0	0	0	0	0	0	49
% Trucks	0	0.4	0	0	0.2	0	0.5	0	1.5	0.8	0	0	0	0	0	0	0.7
Buses	0	1	0	0	1	0	0	0	1	2	0	0	0	0	0	0	5
% Buses	0	0	0	0	0.2	0	0	0	0.1	0.1	0	0	0	0	0	0	0.1

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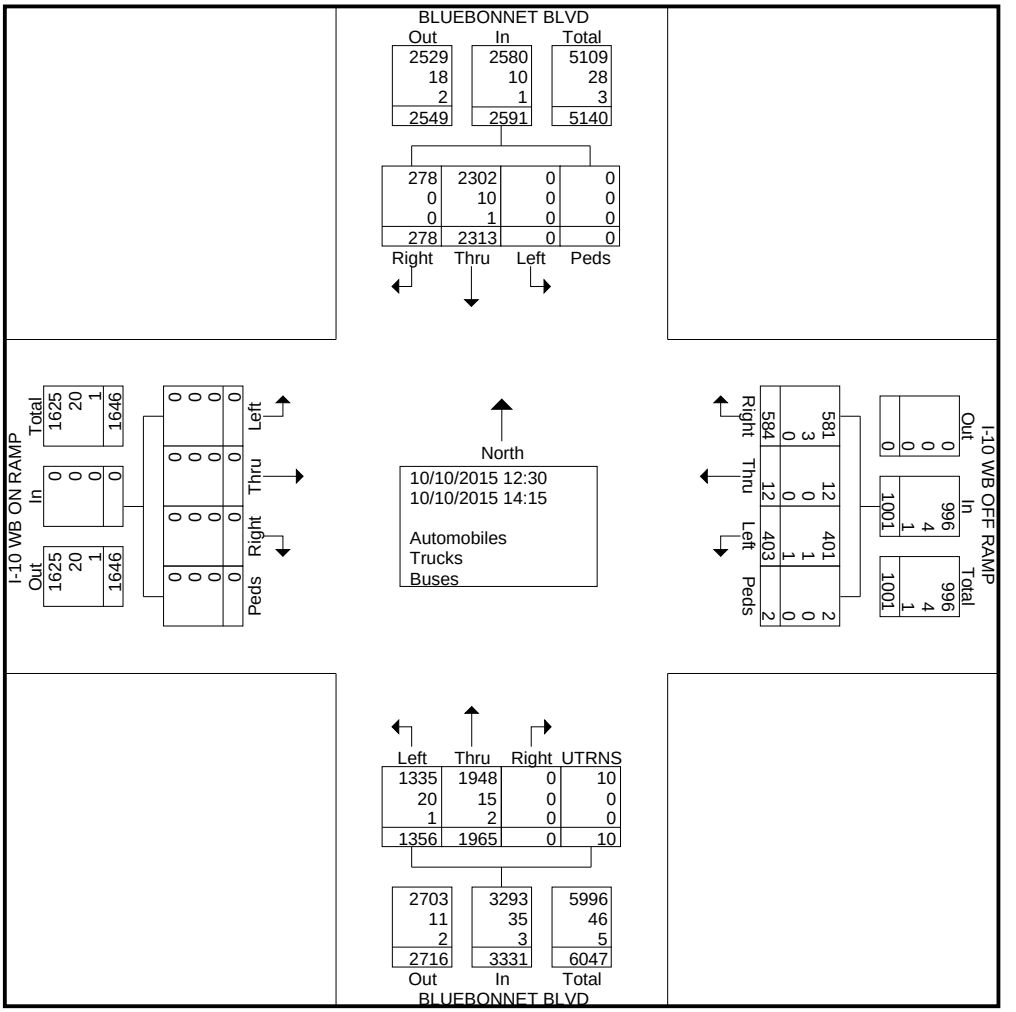
BLUEBONNET BLVD @ I-10 WB RAMPS
BATON ROUGE, LOUISIANA

File Name : 15076-8 SAT BLUEBONNET @ I-10 WB RAMPS
Site Code : 15076-8
Start Date : 10/10/2015
Page No : 2



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BLUEBONNET BLVD @ I-10 WB RAMPS
BATON ROUGE, LOUISIANA

File Name : 15076-8 SAT BLUEBONNET @ I-10 WB RAMPS
Site Code : 15076-8
Start Date : 10/10/2015
Page No : 3

	BLUEBONNET BLVD Southbound					I-10 WB OFF RAMP Westbound					BLUEBONNET BLVD Northbound					I-10 WB ON RAMP Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	UTRNS	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:30 to 14:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30																					
12:30	0	288	**51**	0	**339**	58	1	68	**1**	128	**182**	**269**	0	**2**	**453**	0	0	0	0	0	**920**
12:45	0	**305**	34	0	339	**62**	1	**81**	0	**144**	166	258	0	0	424	0	0	0	0	0	907
13:00	0	266	39	0	305	45	0	69	0	114	156	225	0	1	382	0	0	0	0	0	801
13:15	0	286	39	0	325	48	**3**	64	0	115	170	241	0	1	412	0	0	0	0	0	852
Total Volume	0	1145	163	0	1308	213	5	282	1	501	674	993	0	4	1671	0	0	0	0	0	3480
% App. Total	0	87.5	12.5	0		42.5	1	56.3	0.2		40.3	59.4	0	0.2		0	0	0	0		
PHF	.000	.939	.799	.000	.965	.859	.417	.870	.250	.870	.926	.923	.000	.500	.922	.000	.000	.000	.000	.000	.946

File Name: G:\DATA\2015\Private\15076\TMC'S Saturday\15076-8 SAT BLUEBONNET @ I-10 WB RAMPS.ppd
Start Date: 10/10/2015
Start Time: 12:30:00 PM
Site Code: 15076-8
Comment 1: BLUEBONNET BLVD @ I-10 WB RAMPS
Comment 2: BATON ROUGE, LOUISIANA
Comment 3:
Comment 4:

HGV % by Movement

	BLUEBONNET BLVD				I-10 WB OFF RAMP				BLUEBONNET BLVD				I-10 WB ON RAMP			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	UTRNS	Left	Thru	Right	Peds
12:30		0%	0%		0%	0%	0%		2%	1%		0%				
12:45		1%	0%		0%	0%	0%		1%	0%		#DIV/0!				
13:00		0%	0%		0%	#DIV/0!	0%		2%	1%		0%				
13:15		1%	0%		0%	0%	0%		2%	1%		0%				
13:30		0%	0%		2%	0%	0%		1%	0%		0%				
13:45		0%	0%		0%	0%	1%		1%	1%		0%				
14:00		0%	0%		0%	0%	3%		2%	1%		0%				
14:15		0%	0%		2%	0%	0%		2%	1%		0%				

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Bluebonnet Blvd @ Blue Cross Pkwy
Baton Rouge, Louisiana

File Name : 15076-9 BLUEBONNET BLVD @ BLUE CROSS PKWY
Site Code : 15076-9
Start Date : 10/8/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	BLUEBONNET BLVD Southbound				BLUE CROSS PKWY Westbound				BLUEBONNET BLVD Northbound				BLUE CROSS PKWY Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00	42	269	9	0	69	1	2	0	7	194	77	0	6	5	2	0	683
07:15	46	287	12	0	79	0	5	1	12	273	83	0	8	5	4	0	815
07:30	62	335	8	0	73	3	3	0	21	292	122	0	10	7	3	0	939
07:45	63	370	17	0	55	2	7	0	16	327	152	0	8	12	5	0	1034
Total	213	1261	46	0	276	6	17	1	56	1086	434	0	32	29	14	0	3471
08:00	64	323	9	0	43	1	7	1	21	365	139	0	8	6	5	0	992
08:15	51	308	15	0	47	2	5	0	13	303	110	0	11	4	2	0	871
08:30	42	286	10	0	33	3	4	0	19	311	76	0	13	4	1	0	802
08:45	38	295	17	0	40	0	3	0	19	276	49	0	10	5	5	0	757
Total	195	1212	51	0	163	6	19	1	72	1255	374	0	42	19	13	0	3422
09:00	16	260	9	0	24	4	3	0	17	233	24	0	12	2	4	0	608
09:15	8	255	5	0	34	2	7	0	12	244	32	0	2	2	14	0	617
09:30	6	264	8	2	13	0	3	1	21	211	23	0	10	0	13	0	575
09:45	5	206	6	0	39	1	10	0	19	255	22	0	11	5	4	0	583
Total	35	985	28	2	110	7	23	1	69	943	101	0	35	9	35	0	2383
BREAK																	
12:00	15	267	4	0	43	5	25	0	21	314	49	0	9	9	21	0	782
12:15	19	276	3	0	44	4	7	0	18	315	44	0	6	10	16	0	762
12:30	14	281	7	0	29	3	12	0	22	298	51	0	22	9	17	0	765
12:45	16	301	6	0	38	3	18	0	19	299	45	0	7	5	16	0	773
Total	64	1125	20	0	154	15	62	0	80	1226	189	0	44	33	70	0	3082
13:00	11	238	8	0	33	0	17	0	16	297	31	0	26	3	16	0	696
13:15	15	268	3	0	30	1	10	0	22	292	39	0	20	0	8	0	708
13:30	17	274	8	0	34	1	9	0	23	320	39	0	11	5	11	0	752
13:45	8	282	13	0	31	1	8	0	19	349	23	0	11	5	12	0	762
Total	51	1062	32	0	128	3	44	0	80	1258	132	0	68	13	47	0	2918
BREAK																	
15:00	5	258	0	0	48	0	31	0	14	360	27	0	9	0	21	0	773
15:15	4	254	1	0	49	3	15	0	14	336	31	0	15	2	9	0	733
15:30	7	266	6	0	74	2	23	2	10	379	22	0	21	3	21	0	836
15:45	5	307	6	1	54	0	27	0	9	361	34	0	17	1	14	0	836
Total	21	1085	13	1	225	5	96	2	47	1436	114	0	62	6	65	0	3178
16:00	3	307	5	0	94	3	38	0	8	389	27	0	20	5	13	0	912
16:15	6	315	3	0	108	2	37	0	10	389	39	0	16	3	14	0	942
16:30	5	288	6	0	134	34	61	0	9	402	34	0	24	3	26	0	1026
16:45	3	283	1	0	128	17	41	1	13	405	47	0	15	2	33	1	990
Total	17	1193	15	0	464	56	177	1	40	1585	147	0	75	13	86	1	3870
17:00	11	332	4	0	129	27	50	0	14	412	39	0	18	7	21	0	1064
17:15	5	287	2	0	100	5	38	0	7	409	68	0	20	4	16	0	961
17:30	5	306	8	0	82	6	6	0	8	420	37	0	17	4	17	0	916
17:45	8	254	6	0	48	1	12	0	12	358	47	0	11	1	7	0	765
Total	29	1179	20	0	359	39	106	0	41	1599	191	0	66	16	61	0	3706
Grand Total	625	9102	225	3	1879	137	544	6	485	10388	1682	0	424	138	391	1	26030
Apprch %	6.3	91.4	2.3	0	73.2	5.3	21.2	0.2	3.9	82.7	13.4	0	44.4	14.5	41	0.1	
Total %	2.4	35	0.9	0	7.2	0.5	2.1	0	1.9	39.9	6.5	0	1.6	0.5	1.5	0	
Automobiles	624	8974	222	3	1867	135	544	4	476	10252	1674	0	417	137	384	0	25713
% Automobiles	99.8	98.6	98.7	100	99.4	98.5	100	66.7	98.1	98.7	99.5	0	98.3	99.3	98.2	0	98.8
Trucks	1	106	3	0	11	2	0	2	8	99	7	0	7	1	7	1	255
% Trucks	0.2	1.2	1.3	0	0.6	1.5	0	33.3	1.6	1	0.4	0	1.7	0.7	1.8	100	1
Buses	0	22	0	0	1	0	0	0	1	37	1	0	0	0	0	0	62
% Buses	0	0.2	0	0	0.1	0	0	0	0.2	0.4	0.1	0	0	0	0	0	0.2

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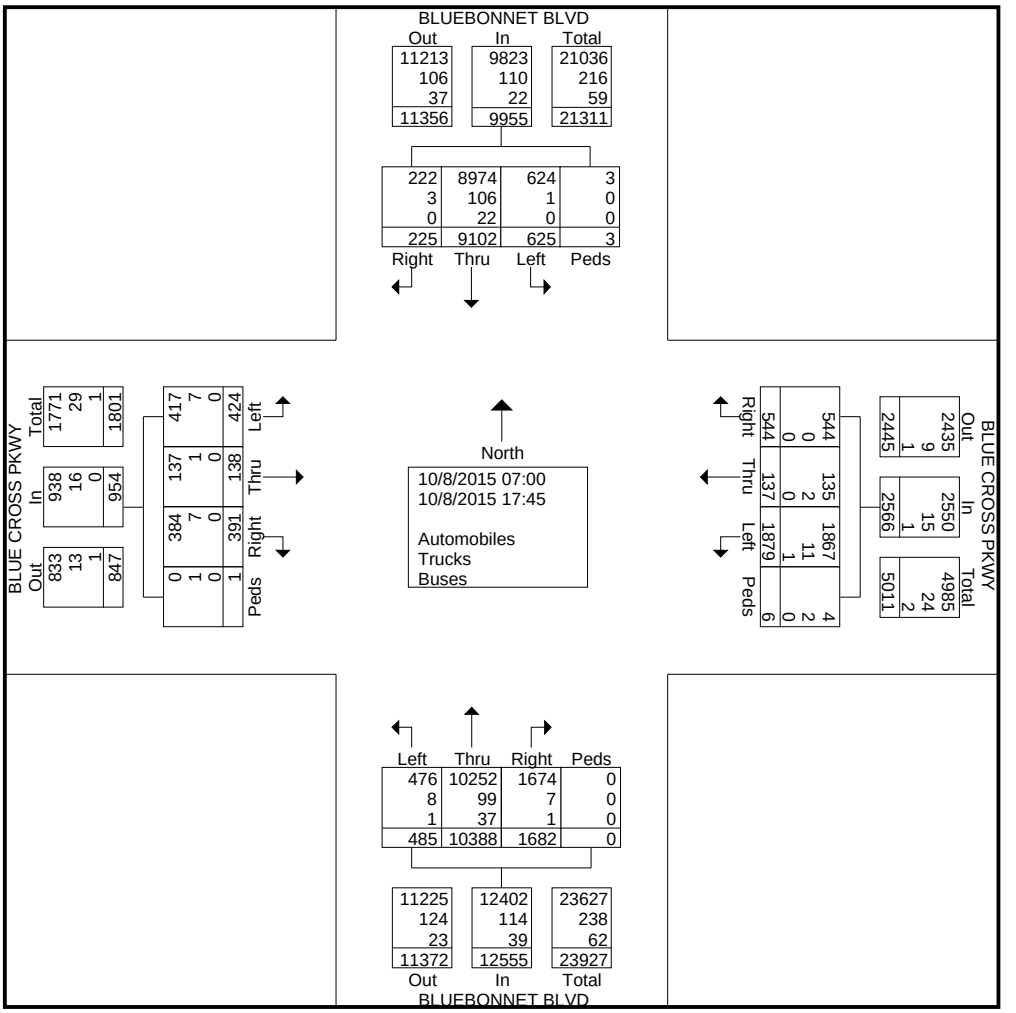

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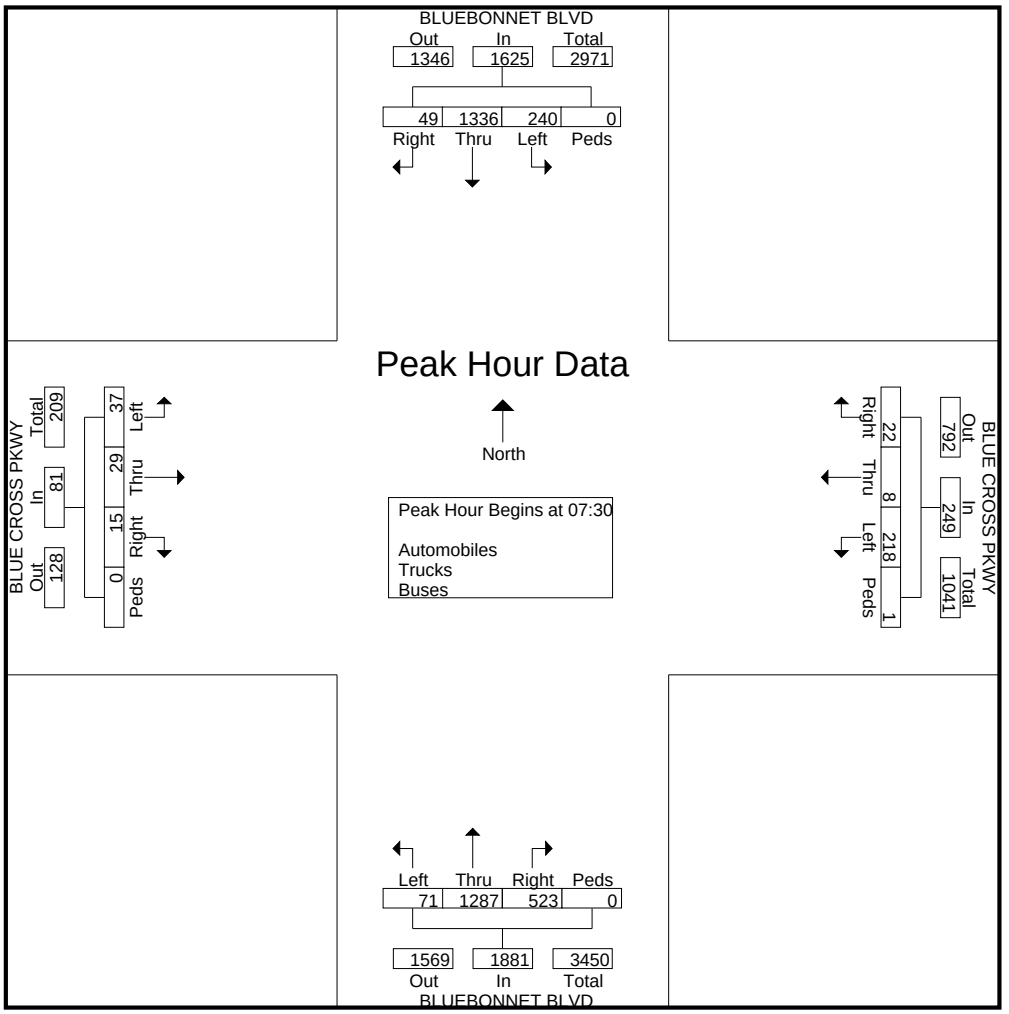
Bluebonnet Blvd @ Blue Cross Pkwy
Baton Rouge, Louisiana

File Name : 15076-9 BLUEBONNET BLVD @ BLUE CROSS PKWY
Site Code : 15076-9
Start Date : 10/8/2015
Page No : 3

	BLUEBONNET BLVD Southbound					BLUE CROSS PKWY Westbound					BLUEBONNET BLVD Northbound					BLUE CROSS PKWY Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	62	335	8	0	405	**73**	**3**	3	0	**79**	**21**	292	122	0	435	10	7	3	0	20	939
07:45	63	**370**	**17**	0	**450**	55	2	**7**	0	64	16	327	**152**	0	495	8	**12**	**5**	0	**25**	**1034**
08:00	**64**	323	9	0	396	43	1	7	**1**	52	21	**365**	139	0	**525**	8	6	5	0	19	992
08:15	51	308	15	0	374	47	2	5	0	54	13	303	110	0	426	**11**	4	2	0	17	871
Total Volume	240	1336	49	0	1625	218	8	22	1	249	71	1287	523	0	1881	37	29	15	0	81	3836
% App. Total	14.8	82.2	3	0		87.6	3.2	8.8	0.4		3.8	68.4	27.8	0		45.7	35.8	18.5	0		
PHF	.938	.903	.721	.000	.903	.747	.667	.786	.250	.788	.845	.882	.860	.000	.896	.841	.604	.750	.000	.810	.927



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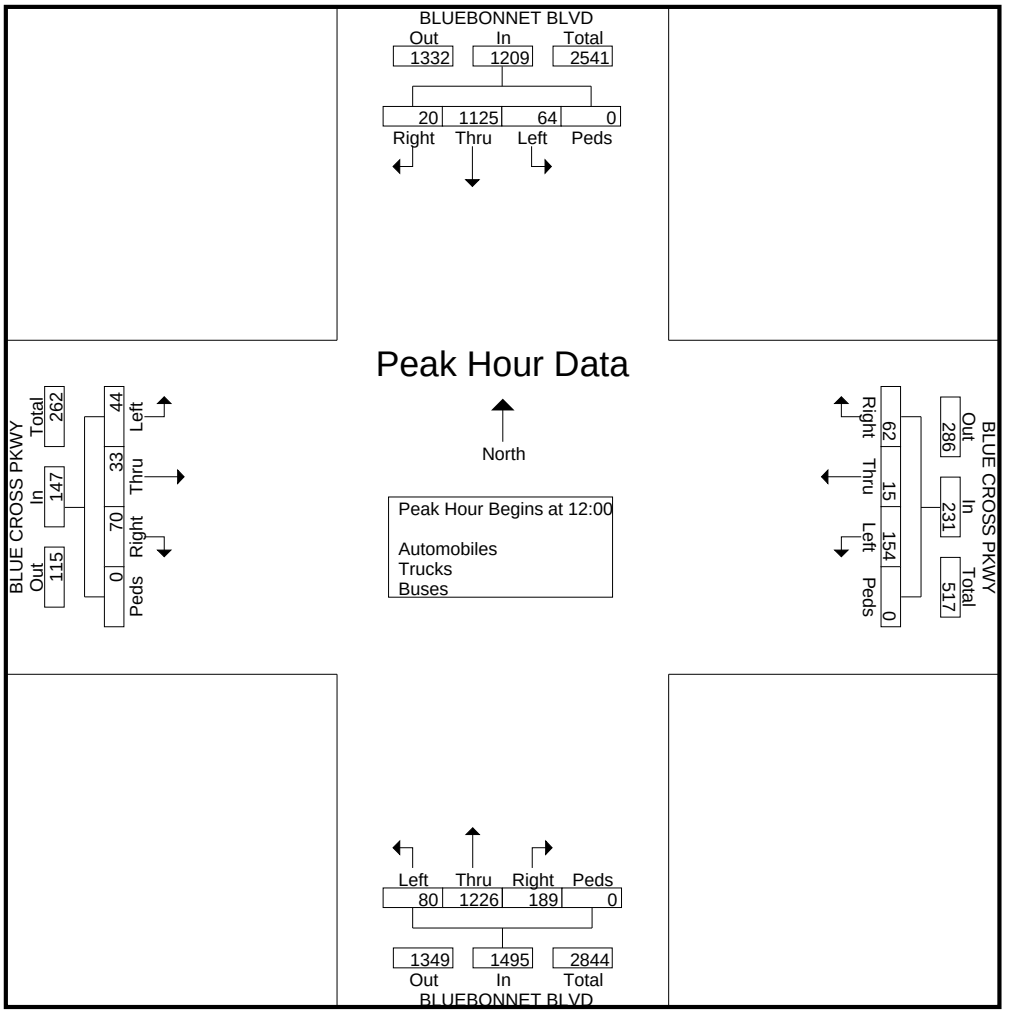
Bluebonnet Blvd @ Blue Cross Pkwy
Baton Rouge, Louisiana

File Name : 15076-9 BLUEBONNET BLVD @ BLUE CROSS PKWY
Site Code : 15076-9
Start Date : 10/8/2015
Page No : 4

	BLUEBONNET BLVD Southbound					BLUE CROSS PKWY Westbound					BLUEBONNET BLVD Northbound					BLUE CROSS PKWY Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00																					
12:00	15	267	4	0	286	43	**5**	**25**	0	**73**	21	314	49	0	**384**	9	9	**21**	0	39	**782**
12:15	**19**	276	3	0	298	**44**	4	7	0	55	18	**315**	44	0	377	6	**10**	16	0	32	762
12:30	14	281	**7**	0	302	29	3	12	0	44	**22**	298	**51**	0	371	**22**	9	17	0	**48**	765
12:45	16	**301**	6	0	**323**	38	3	18	0	59	19	299	45	0	363	7	5	16	0	28	773
Total Volume	64	1125	20	0	1209	154	15	62	0	231	80	1226	189	0	1495	44	33	70	0	147	3082
% App. Total	5.3	93.1	1.7	0		66.7	6.5	26.8	0		5.4	82	12.6	0		29.9	22.4	47.6	0		
PHF	.842	.934	.714	.000	.936	.875	.750	.620	.000	.791	.909	.973	.926	.000	.973	.500	.825	.833	.000	.766	.985



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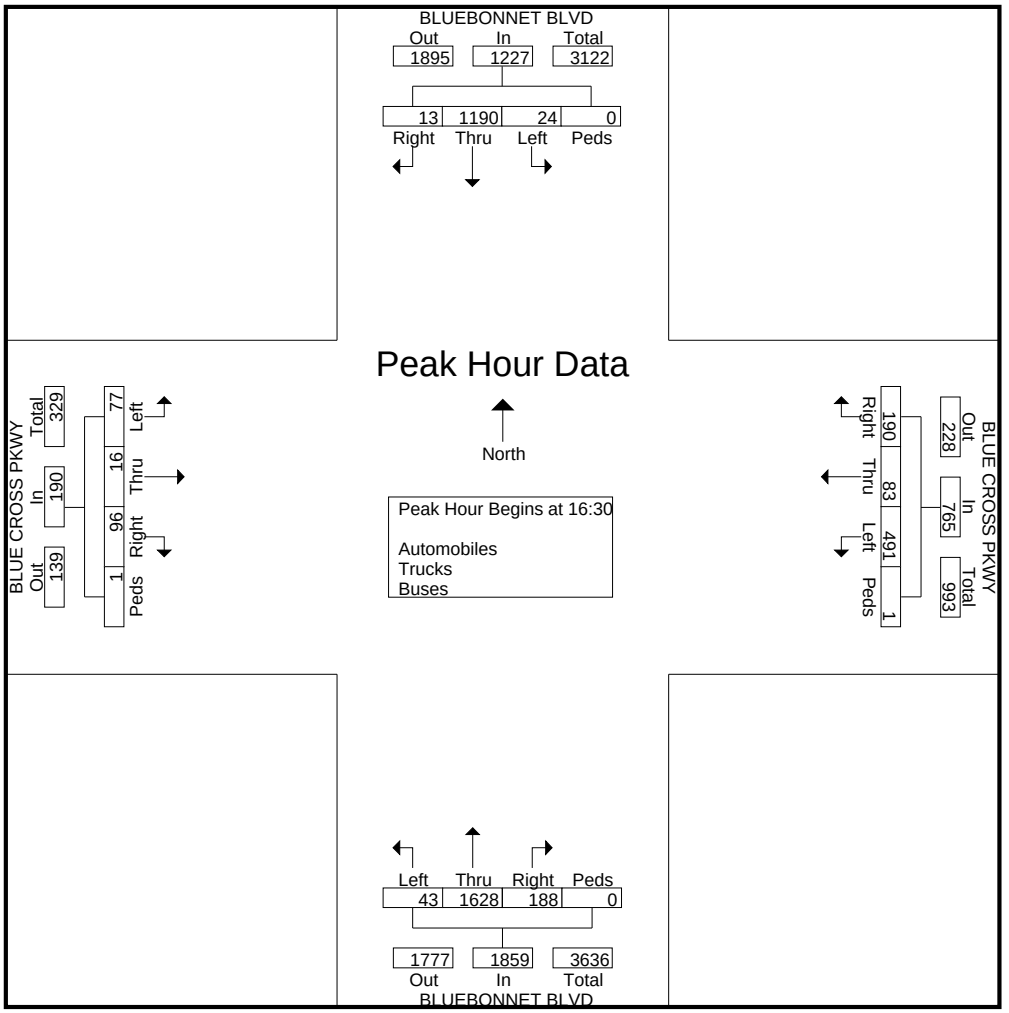
Bluebonnet Blvd @ Blue Cross Pkwy
Baton Rouge, Louisiana

File Name : 15076-9 BLUEBONNET BLVD @ BLUE CROSS PKWY
Site Code : 15076-9
Start Date : 10/8/2015
Page No : 5

	BLUEBONNET BLVD Southbound					BLUE CROSS PKWY Westbound					BLUEBONNET BLVD Northbound					BLUE CROSS PKWY Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 14:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	5	288	**6**	0	299	**134**	**34**	**61**	0	**229**	9	402	34	0	445	**24**	3	26	0	**53**	1026
16:45	3	283	1	0	287	128	17	41	**1**	187	13	405	47	0	465	15	2	**33**	**1**	51	990
17:00	**11**	**332**	4	0	**347**	129	27	50	0	206	**14**	**412**	39	0	465	18	**7**	21	0	46	**1064**
17:15	5	287	2	0	294	100	5	38	0	143	7	409	**68**	0	**484**	20	4	16	0	40	961
Total Volume	24	1190	13	0	1227	491	83	190	1	765	43	1628	188	0	1859	77	16	96	1	190	4041
% App. Total	2	97	1.1	0		64.2	10.8	24.8	0.1		2.3	87.6	10.1	0		40.5	8.4	50.5	0.5		
PHF	.545	.896	.542	.000	.884	.916	.610	.779	.250	.835	.768	.988	.691	.000	.960	.802	.571	.727	.250	.896	.949



File Name: G:\DATA\2015\Private\15076\15076-9 BLUEBONNET BLVD @ BLUE CROSS PKWY.ppd
Start Date: 10/8/2015
Start Time: 7:00:00 AM
Site Code: 15076-9
Comment 1: Bluebonnet Blvd @ Blue Cross Pkwy
Comment 2: Baton Rouge, Louisiana
Comment 3:
Comment 4:

HGV % by Movement

	BLUEBONNET BLVD				BLUE CROSS PKWY				BLUEBONNET BLVD				BLUE CROSS PKWY			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00	0%	3%	0%		1%	0%	0%		14%	1%	0%		0%	0%	50%	
07:15	0%	1%	8%		1%	#DIV/0!	0%		0%	2%	1%		0%	0%	25%	
07:30	0%	1%	0%		0%	0%	0%		0%	2%	0%		0%	0%	33%	
07:45	0%	2%	0%		0%	0%	0%		0%	2%	0%		0%	0%	0%	
08:00	0%	3%	0%		2%	0%	0%		0%	1%	1%		0%	0%	0%	
08:15	0%	2%	0%		2%	0%	0%		0%	1%	0%		0%	0%	0%	
08:30	0%	2%	0%		3%	33%	0%		0%	1%	0%		0%	0%	0%	
08:45	0%	1%	0%		0%	#DIV/0!	0%		0%	1%	2%		0%	0%	0%	
09:00	0%	2%	0%		0%	0%	0%		0%	2%	0%		0%	0%	0%	
09:15	0%	2%	0%		3%	0%	0%		0%	1%	0%		0%	0%	0%	
09:30	0%	1%	0%		0%	#DIV/0!	0%		0%	2%	0%		10%	#DIV/0!	8%	
09:45	0%	3%	0%		0%	0%	0%		5%	1%	0%		0%	20%	0%	
10:00																
10:15																
10:30																
10:45																
11:00																
11:15																
11:30																
11:45																
12:00	0%	1%	0%		2%	0%	0%		10%	2%	0%		0%	0%	5%	
12:15	5%	2%	0%		0%	0%	0%		0%	1%	0%		0%	0%	6%	
12:30	0%	1%	0%		0%	0%	0%		5%	2%	2%		5%	0%	0%	
12:45	0%	1%	0%		0%	0%	0%		0%	2%	0%		0%	0%	0%	
13:00	0%	0%	0%		0%	#DIV/0!	0%		13%	2%	0%		4%	0%	0%	
13:15	0%	1%	0%		7%	0%	0%		0%	1%	3%		0%	#DIV/0!	0%	
13:30	0%	1%	0%		0%	0%	0%		0%	3%	0%		0%	0%	9%	
13:45	0%	1%	0%		3%	0%	0%		0%	1%	0%		9%	0%	0%	
14:00																
14:15																
14:30																
14:45																
15:00	0%	1%	#DIV/0!		2%	#DIV/0!	0%		0%	1%	4%		0%	#DIV/0!	0%	
15:15	0%	2%	0%		0%	0%	0%		0%	2%	0%		0%	0%	0%	
15:30	0%	2%	17%		0%	0%	0%		0%	3%	0%		5%	0%	0%	
15:45	0%	1%	17%		0%	#DIV/0!	0%		11%	1%	0%		0%	0%	0%	
16:00	0%	2%	0%		0%	0%	0%		0%	0%	0%		0%	0%	0%	
16:15	0%	1%	0%		0%	0%	0%		0%	1%	0%		0%	0%	0%	
16:30	0%	1%	0%		0%	0%	0%		0%	1%	0%		0%	0%	0%	
16:45	0%	1%	0%		0%	0%	0%		0%	0%	2%		7%	0%	0%	
17:00	0%	0%	0%		0%	0%	0%		0%	0%	3%		0%	0%	0%	
17:15	0%	0%	0%		1%	0%	0%		0%	0%	0%		0%	0%	0%	
17:30	0%	1%	0%		0%	17%	0%		13%	0%	0%		0%	0%	0%	
17:45	0%	1%	0%		0%	0%	0%		0%	2%	0%		9%	0%	0%	

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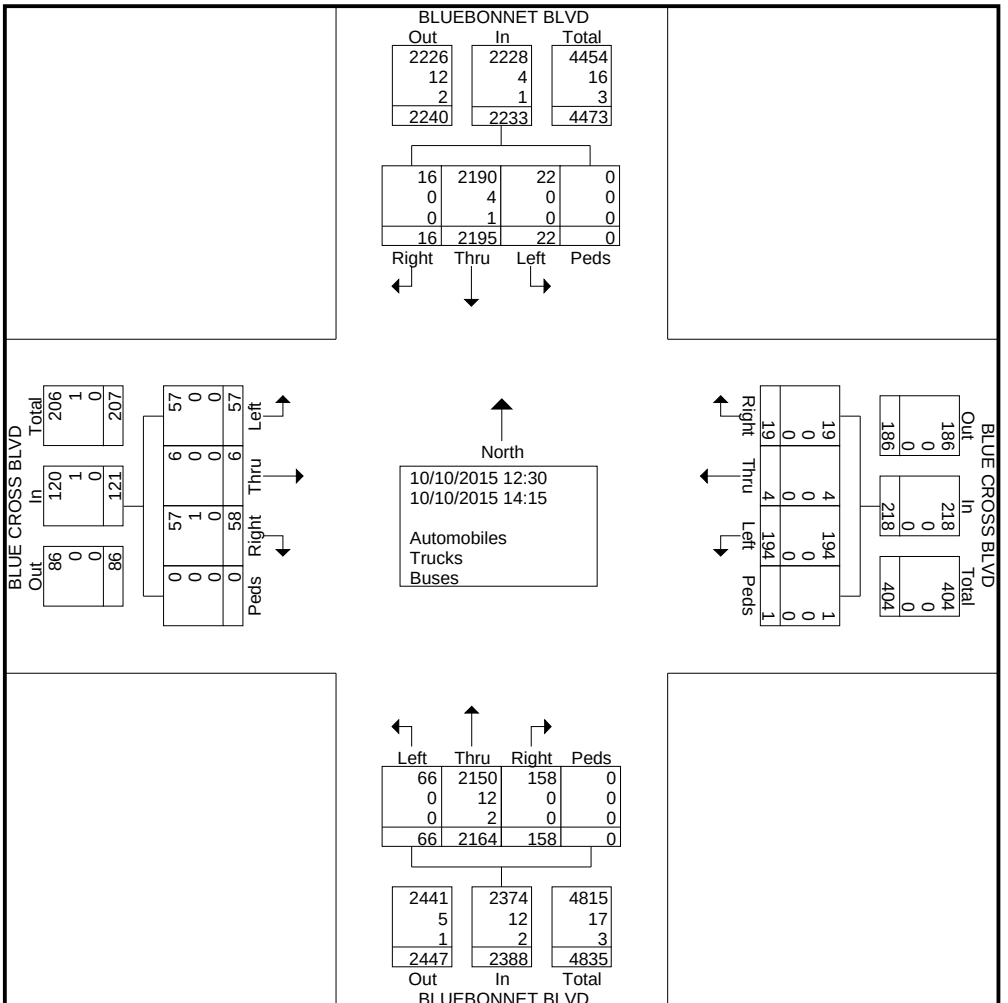
BLUEBONNET BLVD @ BLUE CROSS PKWY
BATON ROUGE, LOUISIANA

File Name : 15076-9 SAT BLUEBONNET BLVD @ BLUE CROSS BLVD
Site Code :
Start Date : 10/10/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	BLUEBONNET BLVD Southbound				BLUE CROSS BLVD Westbound				BLUEBONNET BLVD Northbound				BLUE CROSS BLVD Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
12:30	3	264	1	0	25	0	5	0	9	268	16	0	7	1	7	0	606
12:45	3	308	0	0	18	2	5	0	8	298	25	0	10	0	5	0	682
Total	6	572	1	0	43	2	10	0	17	566	41	0	17	1	12	0	1288
13:00	3	252	1	0	25	2	0	0	9	247	18	0	6	0	9	0	572
13:15	3	270	4	0	26	0	0	0	8	281	13	0	9	1	6	0	621
13:30	1	289	3	0	28	0	2	0	5	286	31	0	8	0	4	0	657
13:45	2	280	2	0	18	0	2	0	14	274	19	0	5	0	10	0	626
Total	9	1091	10	0	97	2	4	0	36	1088	81	0	28	1	29	0	2476
14:00	3	255	1	0	28	0	1	1	8	263	21	0	8	4	7	0	600
14:15	4	277	4	0	26	0	4	0	5	247	15	0	4	0	10	0	596
Grand Total	22	2195	16	0	194	4	19	1	66	2164	158	0	57	6	58	0	4960
Apprch %	1	98.3	0.7	0	89	1.8	8.7	0.5	2.8	90.6	6.6	0	47.1	5	47.9	0	
Total %	0.4	44.3	0.3	0	3.9	0.1	0.4	0	1.3	43.6	3.2	0	1.1	0.1	1.2	0	
Automobiles	22	2190	16	0	194	4	19	1	66	2150	158	0	57	6	57	0	4940
% Automobiles	100	99.8	100	0	100	100	100	100	100	99.4	100	0	100	100	98.3	0	99.6
Trucks	0	4	0	0	0	0	0	0	0	12	0	0	0	0	1	0	17
% Trucks	0	0.2	0	0	0	0	0	0	0	0.6	0	0	0	0	1.7	0	0.3
Buses	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	3
% Buses	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0.1



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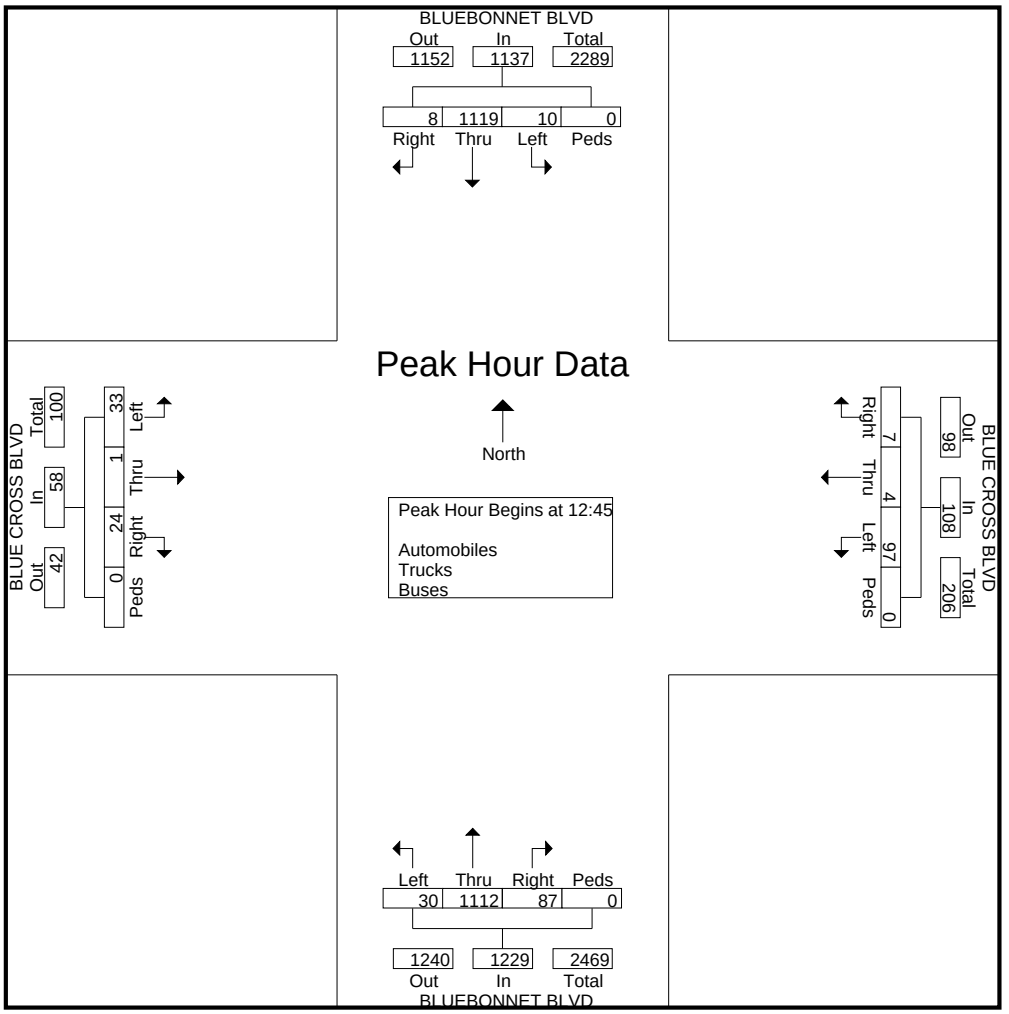
BLUEBONNET BLVD @ BLUE CROSS BLVD File Name : 15076-9 SAT BLUEBONNET BLVD @ BLUE CROSS BLVD
BATON ROUGE, LOUISIANA Site Code :
Start Date : 10/10/2015
Page No : 2

	BLUEBONNET BLVD Southbound					BLUE CROSS BLVD Westbound					BLUEBONNET BLVD Northbound					BLUE CROSS BLVD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:30 to 14:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:45																					
12:45	**3**	**308**	0	0	**311**	18	**2**	**5**	0	25	8	**298**	25	0	**331**	**10**	0	5	0	15	**682**
13:00	3	252	1	0	256	25	2	0	0	27	**9**	247	18	0	274	6	0	**9**	0	15	572
13:15	3	270	**4**	0	277	26	0	0	0	26	8	281	13	0	302	9	**1**	6	0	**16**	621
13:30	1	289	3	0	293	**28**	0	2	0	**30**	5	286	**31**	0	322	8	0	4	0	12	657
Total Volume	10	1119	8	0	1137	97	4	7	0	108	30	1112	87	0	1229	33	1	24	0	58	2532
% App. Total	0.9	98.4	0.7	0		89.8	3.7	6.5	0		2.4	90.5	7.1	0		56.9	1.7	41.4	0		
PHF	.833	.908	.500	.000	.914	.866	.500	.350	.000	.900	.833	.933	.702	.000	.928	.825	.250	.667	.000	.906	.928



File Name: G:\DATA\2015\Private\15076\15076-9 SAT BLUEBONNET BLVD @ BLUE CROSS BLVD.ppd
Start Date: 10/10/2015
Start Time: 12:30:00 PM
Site Code:
Comment 1: BLUEBONNET BLVD @ BLUE CROSS PKWY
Comment 2: BATON ROUGE, LOUISIANA
Comment 3:
Comment 4:

HGV % by Movement

	BLUEBONNET BLVD				BLUE CROSS BLVD				BLUEBONNET BLVD				BLUE CROSS BLVD			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
12:30	0%	0%	0%		0%	#DIV/0!	0%		0%	1%	0%		0%	0%	0%	
12:45	0%	0%	#DIV/0!		0%	0%	0%		0%	0%	0%		0%	#DIV/0!	20%	
13:00	0%	0%	0%		0%	0%	#DIV/0!		0%	0%	0%		0%	#DIV/0!	0%	
13:15	0%	0%	0%		0%	#DIV/0!	#DIV/0!		0%	0%	0%		0%	0%	0%	
13:30	0%	0%	0%		0%	#DIV/0!	0%		0%	0%	0%		0%	#DIV/0!	0%	
13:45	0%	0%	0%		0%	#DIV/0!	0%		0%	1%	0%		0%	#DIV/0!	0%	
14:00	0%	0%	0%		0%	#DIV/0!	0%		0%	1%	0%		0%	0%	0%	
14:15	0%	0%	0%		0%	#DIV/0!	0%		0%	0%	0%		0%	#DIV/0!	0%	

Southern Traffic Services, Inc.

2911 Westfield Rd
Gulf Breeze, FL 32563
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Bluebonnet Blvd @ Gail Dr
Baton Rouge, Louisiana

File Name : 15076-10 BLUEBONNET BLVD @ GAIL DR
Site Code : 15076-10 PM
Start Date : 10/8/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	BLUEBONNET BLVD Southbound				GAIL DR Westbound				BLUEBONNET BLVD Northbound				GAIL DR Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00	0	323	0	0	3	0	4	0	1	213	1	0	0	0	3	0	548
07:15	1	414	1	0	1	0	3	0	1	306	4	0	3	0	3	0	737
07:30	1	440	0	0	3	0	3	0	1	275	6	0	2	0	8	0	739
07:45	0	442	2	0	10	0	1	0	3	300	2	0	4	0	3	1	768
Total	2	1619	3	0	17	0	11	0	6	1094	13	0	9	0	17	1	2792
08:00	0	380	1	0	6	2	2	0	2	336	3	0	6	0	8	0	746
08:15	0	386	1	0	4	0	0	0	1	305	9	0	0	1	3	0	710
08:30	0	363	1	0	5	0	0	0	2	299	7	0	0	0	0	1	678
08:45	1	343	1	0	6	0	1	0	4	295	9	0	0	0	5	0	665
Total	1	1472	4	0	21	2	3	0	9	1235	28	0	6	1	16	1	2799
09:00	2	293	1	0	2	0	0	0	2	228	0	0	1	0	0	0	529
09:15	2	299	2	0	6	0	0	0	2	256	4	0	3	0	1	0	575
09:30	1	267	2	0	4	0	1	1	5	218	9	0	1	0	4	0	513
09:45	3	235	2	0	1	0	3	0	0	269	1	0	0	0	4	0	518
Total	8	1094	7	0	13	0	4	1	9	971	14	0	5	0	9	0	2135
BREAK																	
12:00	0	287	5	0	7	0	2	0	4	323	6	0	3	0	3	0	640
12:15	0	334	1	0	9	0	2	0	1	307	3	0	0	0	4	0	661
12:30	3	290	0	0	1	0	4	0	4	341	3	0	2	0	4	0	652
12:45	1	353	3	0	9	0	1	0	8	316	5	0	2	2	0	0	700
Total	4	1264	9	0	26	0	9	0	17	1287	17	0	7	2	11	0	2653
13:00	1	318	4	0	2	0	1	0	3	379	8	0	5	1	2	1	725
13:15	1	308	3	0	5	0	2	0	2	328	10	0	1	0	3	0	663
13:30	1	289	5	0	4	0	3	0	6	316	7	0	5	0	4	0	640
13:45	0	305	3	0	4	0	0	0	6	355	4	0	4	1	4	0	686
Total	3	1220	15	0	15	0	6	0	17	1378	29	0	15	2	13	1	2714
BREAK																	
15:00	1	250	1	0	0	0	0	1	3	388	4	0	1	0	7	0	656
15:15	0	280	1	0	2	0	2	0	9	358	7	0	0	0	4	0	663
15:30	3	273	3	0	12	1	0	1	4	407	3	0	1	0	3	0	711
15:45	0	299	1	0	10	0	3	0	7	412	4	0	0	0	4	0	740
Total	4	1102	6	0	24	1	5	2	23	1565	18	0	2	0	18	0	2770
16:00	1	302	4	0	4	0	3	0	8	426	4	0	3	0	1	1	757
16:15	1	315	1	0	7	1	0	0	13	420	5	0	0	0	4	0	767
16:30	0	333	0	1	9	0	0	1	6	459	5	0	1	0	7	1	823
16:45	0	323	1	0	9	0	0	1	4	434	4	0	2	1	2	0	781
Total	2	1273	6	1	29	1	3	2	31	1739	18	0	6	1	14	2	3128
17:00	0	352	3	0	4	0	0	0	9	434	2	1	0	0	6	0	811
17:15	2	295	4	0	6	0	4	0	12	430	4	0	4	0	1	1	763
17:30	0	296	3	0	2	0	2	0	9	400	7	0	2	1	2	0	724
17:45	0	259	2	0	1	0	2	0	11	363	2	0	0	0	2	1	643
Total	2	1202	12	0	13	0	8	0	41	1627	15	1	6	1	11	2	2941
Grand Total	26	10246	62	1	158	4	49	5	153	10896	152	1	56	7	109	7	21932
Apprch %	0.3	99.1	0.6	0	73.1	1.9	22.7	2.3	1.4	97.3	1.4	0	31.3	3.9	60.9	3.9	
Total %	0.1	46.7	0.3	0	0.7	0	0.2	0	0.7	49.7	0.7	0	0.3	0	0.5	0	
Automobiles	25	10076	60	0	155	4	46	1	151	10687	149	0	54	7	108	2	21525
% Automobiles	96.2	98.3	96.8	0	98.1	100	93.9	20	98.7	98.1	98	0	96.4	100	99.1	28.6	98.1
Trucks	1	143	1	1	1	0	3	4	0	166	3	1	1	0	1	5	331
% Trucks	3.8	1.4	1.6	100	0.6	0	6.1	80	0	1.5	2	100	1.8	0	0.9	71.4	1.5
Buses	0	27	1	0	2	0	0	0	2	43	0	0	1	0	0	0	76
% Buses	0	0.3	1.6	0	1.3	0	0	0	1.3	0.4	0	0	1.8	0	0	0	0.3

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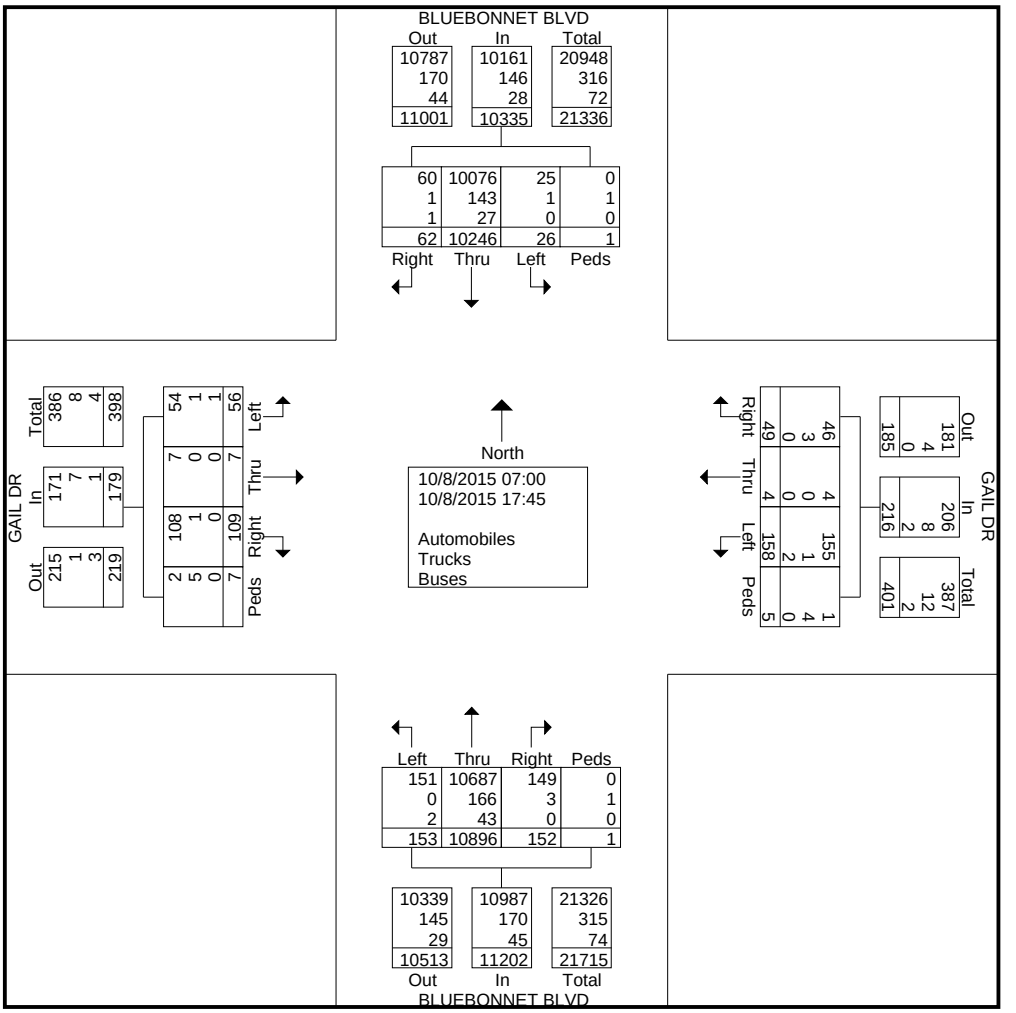

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2911 Westfield Rd
Gulf Breeze, FL 32563
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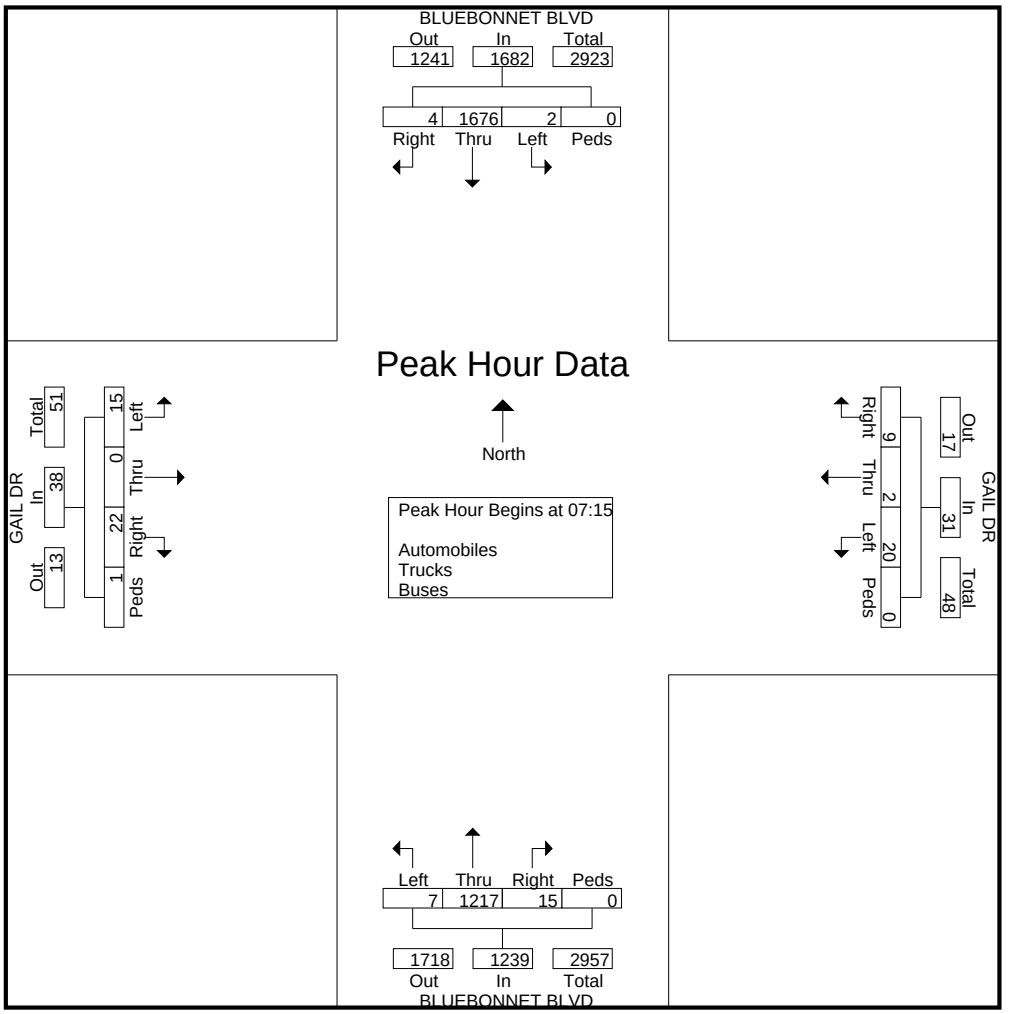
Bluebonnet Blvd @ Gail Dr
Baton Rouge, Louisiana

File Name : 15076-10 BLUEBONNET BLVD @ GAIL DR
Site Code : 15076-10 PM
Start Date : 10/8/2015
Page No : 3

	BLUEBONNET BLVD Southbound					GAIL DR Westbound					BLUEBONNET BLVD Northbound					GAIL DR Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15																					
07:15	**1**	414	1	0	416	1	0	**3**	0	4	1	306	4	0	311	3	0	3	0	6	737
07:30	1	440	0	0	441	3	0	3	0	6	1	275	**6**	0	282	2	0	**8**	0	10	739
07:45	0	**442**	**2**	0	**444**	**10**	0	1	0	**11**	**3**	300	2	0	305	4	0	3	**1**	8	**768**
08:00	0	380	1	0	381	6	**2**	2	0	10	2	**336**	3	0	**341**	**6**	0	8	0	**14**	746
Total Volume	2	1676	4	0	1682	20	2	9	0	31	7	1217	15	0	1239	15	0	22	1	38	2990
% App. Total	0.1	99.6	0.2	0		64.5	6.5	29	0		0.6	98.2	1.2	0		39.5	0	57.9	2.6		
PHF	.500	.948	.500	.000	.947	.500	.250	.750	.000	.705	.583	.906	.625	.000	.908	.625	.000	.688	.250	.679	.973



Southern Traffic Services, Inc.

2911 Westfield Rd
Gulf Breeze, FL 32563
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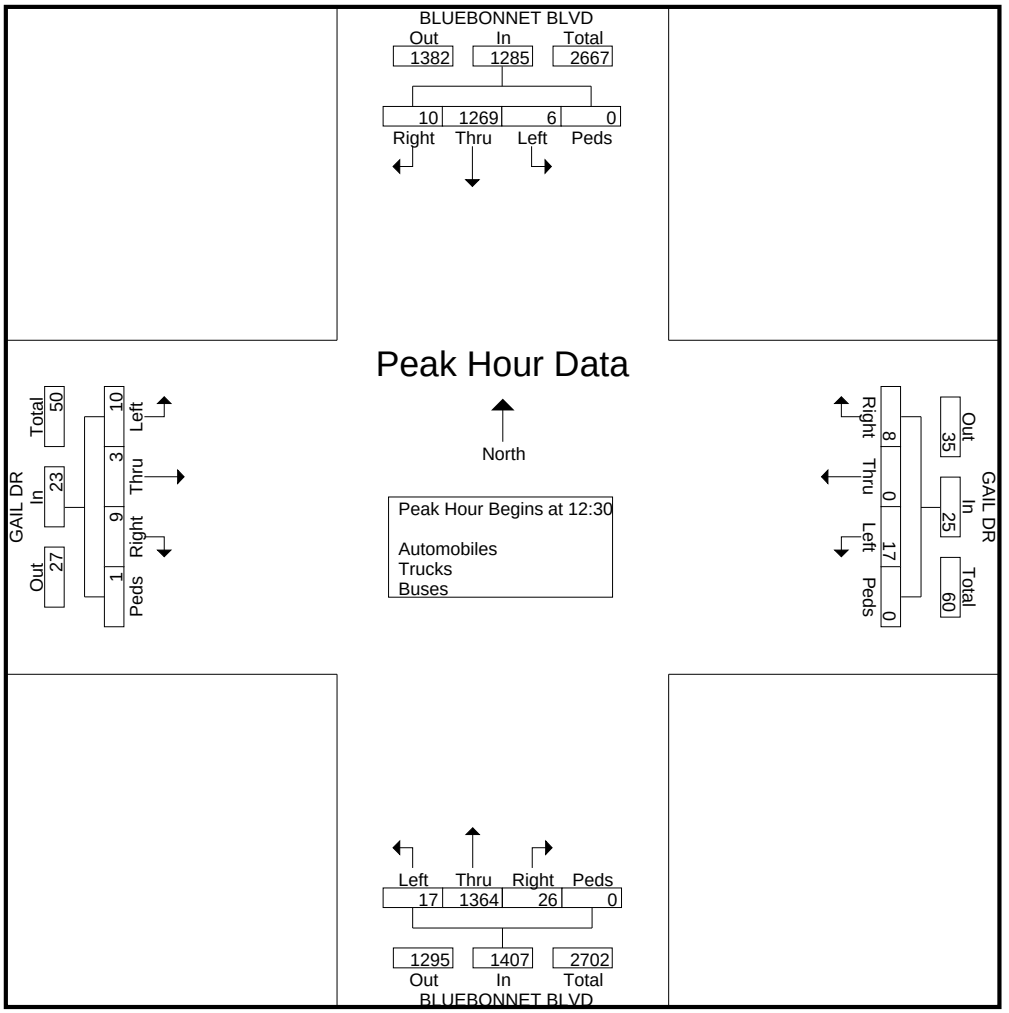
Bluebonnet Blvd @ Gail Dr
Baton Rouge, Louisiana

File Name : 15076-10 BLUEBONNET BLVD @ GAIL DR
Site Code : 15076-10 PM
Start Date : 10/8/2015
Page No : 4

	BLUEBONNET BLVD Southbound					GAIL DR Westbound					BLUEBONNET BLVD Northbound					GAIL DR Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30																					
12:30	**3**	290	0	0	293	1	0	**4**	0	5	4	341	3	0	348	2	0	**4**	0	6	652
12:45	1	**353**	3	0	**357**	**9**	0	1	0	**10**	**8**	316	5	0	329	2	**2**	0	0	4	700
13:00	1	318	**4**	0	323	2	0	1	0	3	3	**379**	8	0	**390**	**5**	1	2	**1**	**9**	**725**
13:15	1	308	3	0	312	5	0	2	0	7	2	328	**10**	0	340	1	0	3	0	4	663
Total Volume	6	1269	10	0	1285	17	0	8	0	25	17	1364	26	0	1407	10	3	9	1	23	2740
% App. Total	0.5	98.8	0.8	0		68	0	32	0		1.2	96.9	1.8	0		43.5	13	39.1	4.3		
PHF	.500	.899	.625	.000	.900	.472	.000	.500	.000	.625	.531	.900	.650	.000	.902	.500	.375	.563	.250	.639	.945



Southern Traffic Services, Inc.

2911 Westfield Rd
Gulf Breeze, FL 32563
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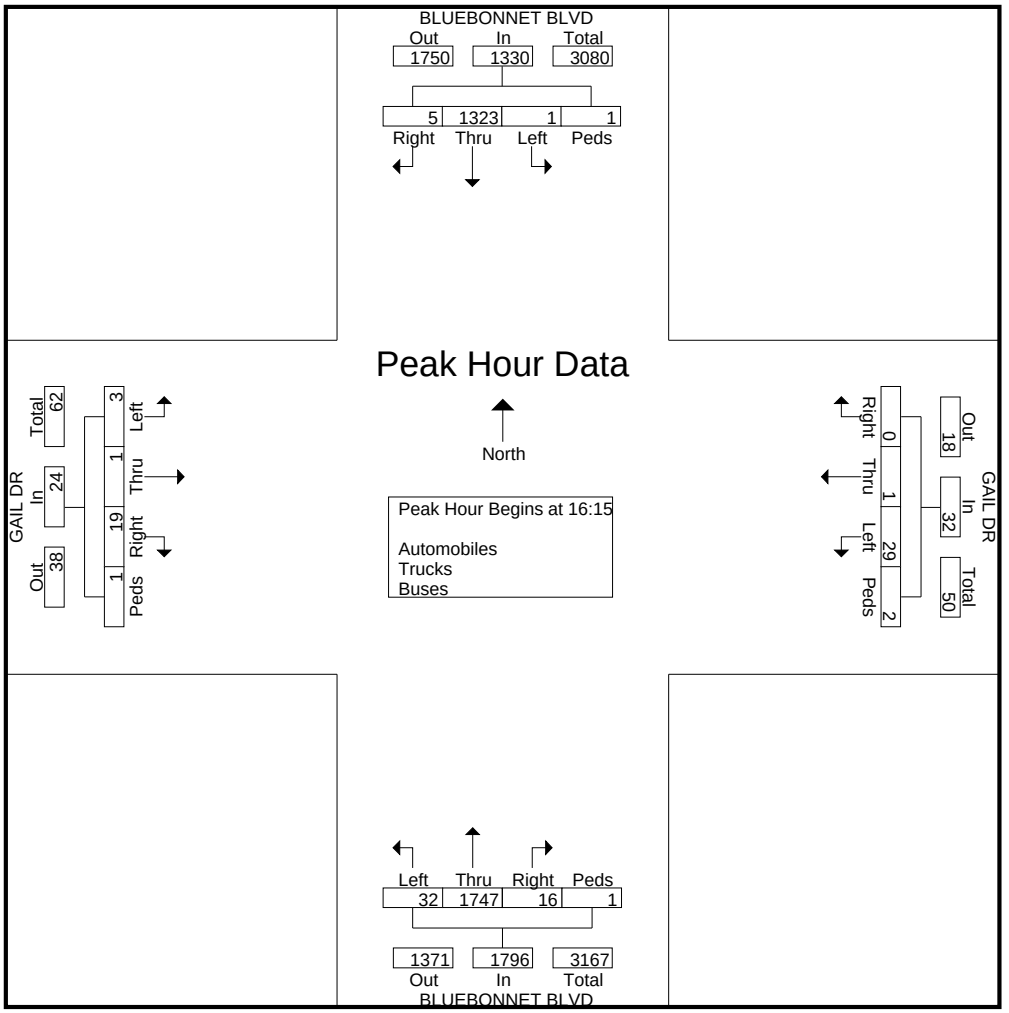
Bluebonnet Blvd @ Gail Dr
Baton Rouge, Louisiana

File Name : 15076-10 BLUEBONNET BLVD @ GAIL DR
Site Code : 15076-10 PM
Start Date : 10/8/2015
Page No : 5

	BLUEBONNET BLVD Southbound					GAIL DR Westbound					BLUEBONNET BLVD Northbound					GAIL DR Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 14:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:15																					
16:15	**1**	315	1	0	317	7	**1**	0	0	8	**13**	420	**5**	0	438	0	0	4	0	4	767
16:30	0	333	0	**1**	334	**9**	0	0	**1**	**10**	6	**459**	5	0	**470**	1	0	**7**	**1**	**9**	**823**
16:45	0	323	1	0	324	9	0	0	1	10	4	434	4	0	442	**2**	**1**	2	0	5	781
17:00	0	**352**	**3**	0	**355**	4	0	0	0	4	9	434	2	**1**	446	0	0	6	0	6	811
Total Volume	1	1323	5	1	1330	29	1	0	2	32	32	1747	16	1	1796	3	1	19	1	24	3182
% App. Total	0.1	99.5	0.4	0.1		90.6	3.1	0	6.2		1.8	97.3	0.9	0.1		12.5	4.2	79.2	4.2		
PHF	.250	.940	.417	.250	.937	.806	.250	.000	.500	.800	.615	.952	.800	.250	.955	.375	.250	.679	.250	.667	.967



File Name: G:\DATA\2015\Private\15076\TMC's Thursday\15076-10 BLUEBONNET BLVD @ GAIL DR.ppd
Start Date: 10/8/2015
Start Time: 7:00:00 AM
Site Code: 15076-10 PM
Comment 1: Bluebonnet Blvd @ Gail Dr
Comment 2: Baton Rouge, Louisiana
Comment 3:
Comment 4:

HGV % by Movement

	BLUEBONNET BLVD				GAIL DR				BLUEBONNET BLVD				GAIL DR			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00	#DIV/0!	3%	#DIV/0!		0%	#DIV/0!	0%		0%	2%	0%		#DIV/0!	#DIV/0!	0%	
07:15	0%	1%	100%		0%	#DIV/0!	0%		0%	2%	0%		0%	#DIV/0!	0%	
07:30	0%	2%	#DIV/0!		0%	#DIV/0!	0%		0%	2%	0%		0%	#DIV/0!	0%	
07:45	#DIV/0!	2%	0%		0%	#DIV/0!	0%		33%	3%	0%		0%	#DIV/0!	0%	
08:00	#DIV/0!	2%	0%		0%	0%	0%		0%	2%	0%		0%	#DIV/0!	0%	
08:15	#DIV/0!	2%	0%		25%	#DIV/0!	#DIV/0!		0%	1%	0%		#DIV/0!	0%	0%	
08:30	#DIV/0!	1%	0%		0%	#DIV/0!	#DIV/0!		0%	2%	0%		#DIV/0!	#DIV/0!	#DIV/0!	
08:45	0%	2%	0%		0%	#DIV/0!	0%		0%	2%	0%		#DIV/0!	#DIV/0!	0%	
09:00	0%	3%	0%		0%	#DIV/0!	#DIV/0!		0%	2%	#DIV/0!		0%	#DIV/0!	#DIV/0!	
09:15	0%	2%	0%		0%	#DIV/0!	#DIV/0!		0%	2%	0%		0%	#DIV/0!	0%	
09:30	0%	1%	0%		0%	#DIV/0!	0%		0%	3%	11%		0%	#DIV/0!	0%	
09:45	0%	3%	0%		0%	#DIV/0!	33%		#DIV/0!	2%	0%		#DIV/0!	#DIV/0!	0%	
10:00																
10:15																
10:30																
10:45																
11:00																
11:15																
11:30																
11:45																
12:00	#DIV/0!	1%	0%		0%	#DIV/0!	50%		0%	2%	17%		0%	#DIV/0!	0%	
12:15	#DIV/0!	2%	0%		11%	#DIV/0!	0%		0%	2%	0%		#DIV/0!	#DIV/0!	0%	
12:30	0%	1%	#DIV/0!		0%	#DIV/0!	0%		0%	2%	0%		0%	#DIV/0!	0%	
12:45	0%	3%	0%		0%	#DIV/0!	0%		0%	3%	0%		0%	0%	#DIV/0!	
13:00	0%	1%	0%		0%	#DIV/0!	0%		0%	2%	0%		0%	0%	0%	
13:15	0%	1%	0%		0%	#DIV/0!	0%		0%	3%	0%		0%	#DIV/0!	0%	
13:30	100%	1%	0%		0%	#DIV/0!	0%		0%	3%	0%		0%	#DIV/0!	0%	
13:45	#DIV/0!	3%	0%		0%	#DIV/0!	#DIV/0!		0%	1%	0%		0%	0%	25%	
14:00																
14:15																
14:30																
14:45																
15:00	0%	2%	0%		#DIV/0!	#DIV/0!	#DIV/0!		0%	2%	0%		0%	#DIV/0!	0%	
15:15	#DIV/0!	3%	0%		0%	#DIV/0!	0%		0%	2%	0%		#DIV/0!	#DIV/0!	0%	
15:30	0%	2%	0%		0%	0%	#DIV/0!		0%	4%	0%		100%	#DIV/0!	0%	
15:45	#DIV/0!	2%	0%		0%	#DIV/0!	0%		14%	1%	0%		#DIV/0!	#DIV/0!	0%	
16:00	0%	3%	0%		0%	#DIV/0!	0%		0%	1%	0%		0%	#DIV/0!	0%	
16:15	0%	1%	0%		0%	0%	#DIV/0!		0%	2%	0%		#DIV/0!	#DIV/0!	0%	
16:30	#DIV/0!	1%	#DIV/0!		0%	#DIV/0!	#DIV/0!		0%	2%	0%		0%	#DIV/0!	0%	
16:45	#DIV/0!	1%	0%		11%	#DIV/0!	#DIV/0!		0%	1%	0%		0%	0%	0%	
17:00	#DIV/0!	1%	33%		0%	#DIV/0!	#DIV/0!		0%	0%	0%		#DIV/0!	#DIV/0!	0%	
17:15	0%	0%	0%		0%	#DIV/0!	0%		0%	1%	25%		25%	#DIV/0!	0%	
17:30	#DIV/0!	1%	0%		0%	#DIV/0!	50%		0%	1%	0%		0%	0%	0%	
17:45	#DIV/0!	2%	0%		0%	#DIV/0!	0%		0%	3%	0%		#DIV/0!	#DIV/0!	0%	

Southern Traffic Services, Inc.

2911 Westfield Rd
Gulf Breeze, FL 32563
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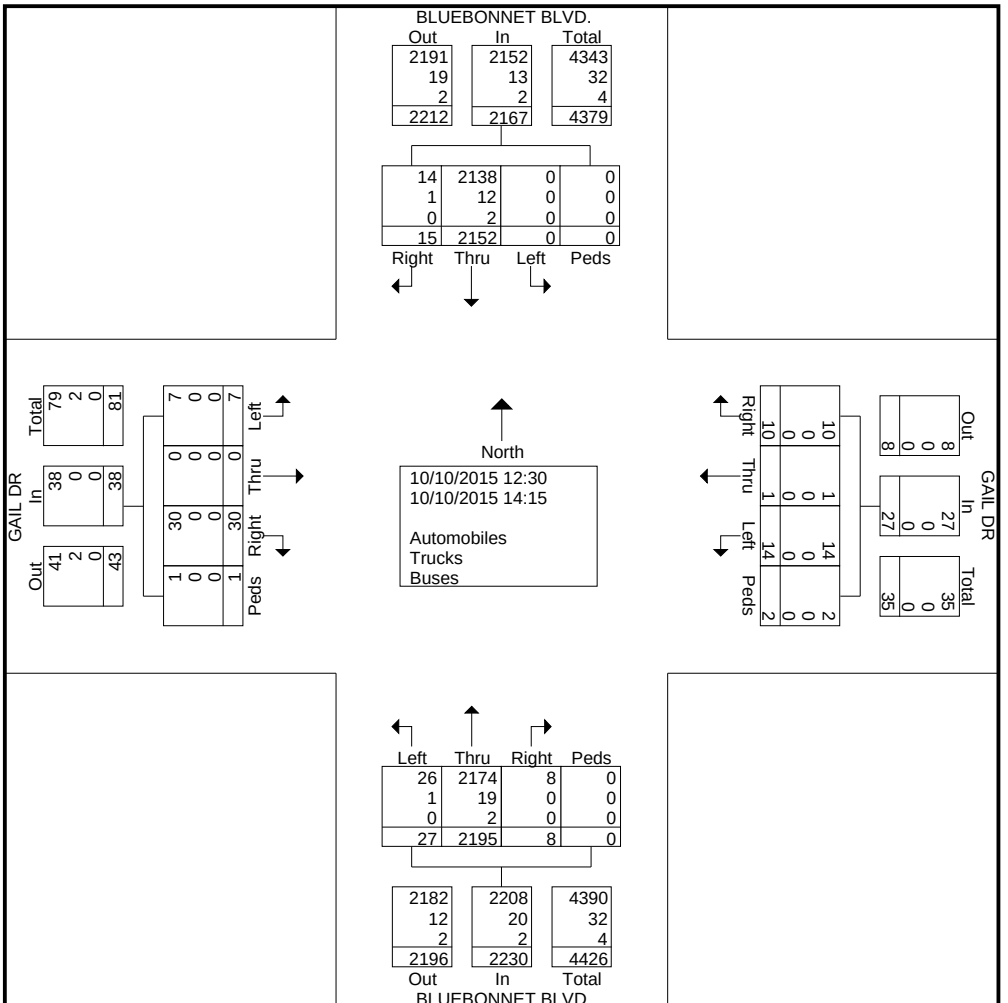
BLUEBONNET BLVD @ GAIL DR
BATON ROUGE, LOUISIANA

File Name : 15076-10 SAT BLUEBONNET BLVD @ GAIL DR
Site Code : 15076-10
Start Date : 10/10/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	BLUEBONNET BLVD. Southbound				GAIL DR Westbound				BLUEBONNET BLVD. Northbound				GAIL DR Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
12:30	0	273	3	0	0	0	0	0	1	275	2	0	0	0	2	0	556
12:45	0	284	1	0	1	0	1	0	1	309	2	0	1	0	5	0	605
Total	0	557	4	0	1	0	1	0	2	584	4	0	1	0	7	0	1161
13:00	0	233	1	0	4	0	0	1	2	238	1	0	2	0	4	1	487
13:15	0	271	1	0	5	0	0	0	3	296	0	0	0	0	4	0	580
13:30	0	289	1	0	2	0	1	0	6	280	1	0	1	0	5	0	586
13:45	0	280	5	0	2	0	1	1	4	286	1	0	0	0	2	0	582
Total	0	1073	8	0	13	0	2	2	15	1100	3	0	3	0	15	1	2235
14:00	0	262	1	0	0	1	2	0	8	252	0	0	1	0	5	0	532
14:15	0	260	2	0	0	0	5	0	2	259	1	0	2	0	3	0	534
Grand Total	0	2152	15	0	14	1	10	2	27	2195	8	0	7	0	30	1	4462
Apprch %	0	99.3	0.7	0	51.9	3.7	37	7.4	1.2	98.4	0.4	0	18.4	0	78.9	2.6	
Total %	0	48.2	0.3	0	0.3	0	0.2	0	0.6	49.2	0.2	0	0.2	0	0.7	0	
Automobiles	0	2138	14	0	14	1	10	2	26	2174	8	0	7	0	30	1	4425
% Automobiles	0	99.3	93.3	0	100	100	100	100	96.3	99	100	0	100	0	100	100	99.2
Trucks	0	12	1	0	0	0	0	0	1	19	0	0	0	0	0	0	33
% Trucks	0	0.6	6.7	0	0	0	0	0	3.7	0.9	0	0	0	0	0	0	0.7
Buses	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	4
% Buses	0	0.1	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0.1



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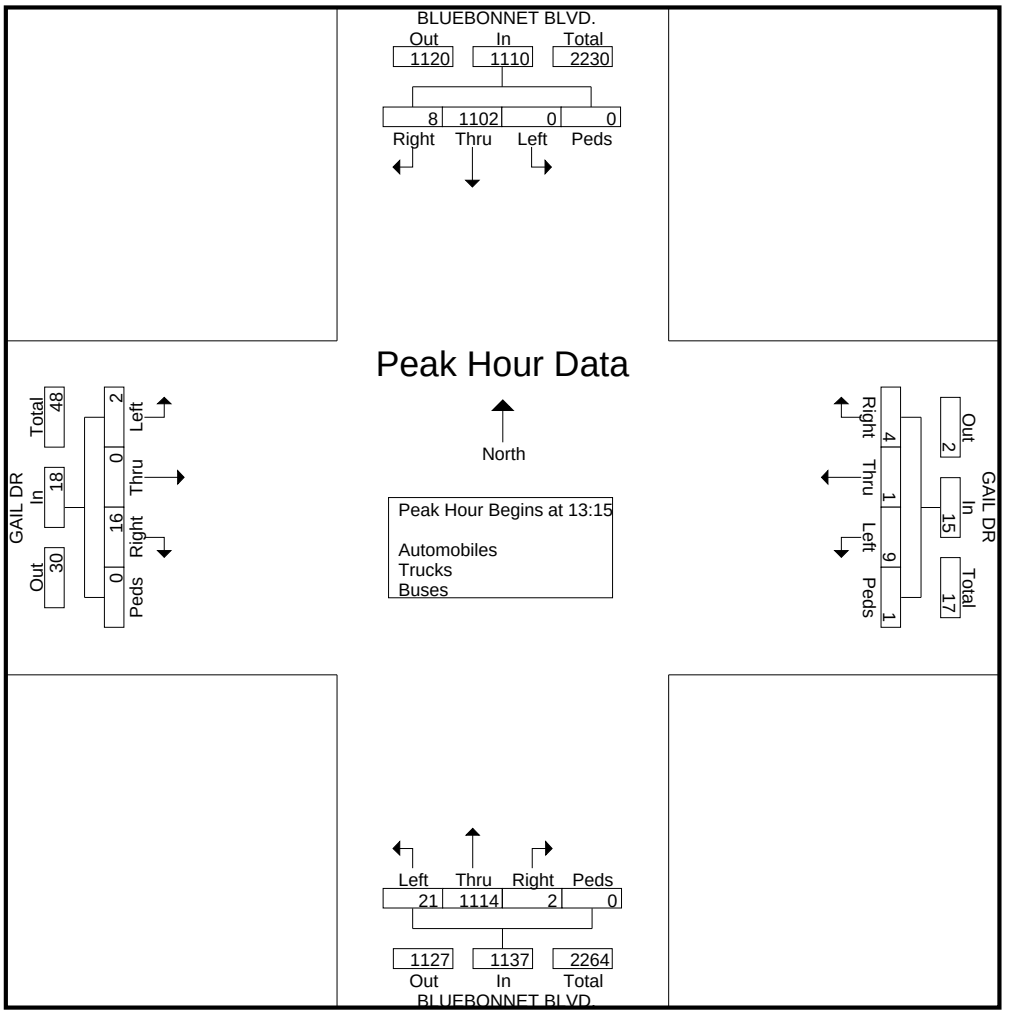
BLUEBONNET BLVD @ GAIL DR
BATON ROUGE, LOUISIANA

File Name : 15076-10 SAT BLUEBONNET BLVD @ GAIL DR
Site Code : 15076-10
Start Date : 10/10/2015

	BLUEBONNET BLVD. Southbound					GAIL DR Westbound					BLUEBONNET BLVD. Northbound					GAIL DR Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:30 to 14:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 13:15																					
13:15	0	271	1	0	272	**5**	0	0	0	**5**	3	**296**	0	0	**299**	0	0	4	0	4	580
13:30	0	**289**	1	0	**290**	2	0	1	0	3	6	280	**1**	0	287	**1**	0	**5**	0	**6**	**586**
13:45	0	280	**5**	0	285	2	0	1	**1**	4	4	286	1	0	291	0	0	2	0	2	582
14:00	0	262	1	0	263	0	**1**	**2**	0	3	**8**	252	0	0	260	1	0	5	0	6	532
Total Volume	0	1102	8	0	1110	9	1	4	1	15	21	1114	2	0	1137	2	0	16	0	18	2280
% App. Total	0	99.3	0.7	0		60	6.7	26.7	6.7		1.8	98	0.2	0		11.1	0	88.9	0		
PHF	.000	.953	.400	.000	.957	.450	.250	.500	.250	.750	.656	.941	.500	.000	.951	.500	.000	.800	.000	.750	.973



File Name: G:\DATA\2015\Private\15076\15076-10 SAT BLUEBONNET BLVD @ GAIL DR.ppd
Start Date: 10/10/2015
Start Time: 12:30:00 PM
Site Code: 15076-10
Comment 1: BLUEBONNET BLVD @ GAIL DR
Comment 2: BATON ROUGE, LOUISIANA
Comment 3:
Comment 4:

HGV % by Movement

	BLUEBONNET BLVD.				GAIL DR				BLUEBONNET BLVD.				GAIL DR			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
12:30	#DIV/0!	1%	0%		#DIV/0!	#DIV/0!	#DIV/0!		0%	3%	0%		#DIV/0!	#DIV/0!	0%	
12:45	#DIV/0!	1%	0%		0%	#DIV/0!	0%		100%	1%	0%		0%	#DIV/0!	0%	
13:00	#DIV/0!	1%	100%		0%	#DIV/0!	#DIV/0!		0%	0%	0%		0%	#DIV/0!	0%	
13:15	#DIV/0!	1%	0%		0%	#DIV/0!	#DIV/0!		0%	0%	#DIV/0!		#DIV/0!	#DIV/0!	0%	
13:30	#DIV/0!	0%	0%		0%	#DIV/0!	0%		0%	0%	0%		0%	#DIV/0!	0%	
13:45	#DIV/0!	0%	0%		0%	#DIV/0!	0%		0%	2%	0%		#DIV/0!	#DIV/0!	0%	
14:00	#DIV/0!	0%	0%		#DIV/0!	0%	0%		0%	1%	#DIV/0!		0%	#DIV/0!	0%	
14:15	#DIV/0!	0%	0%		#DIV/0!	#DIV/0!	0%		0%	0%	0%		0%	#DIV/0!	0%	

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BLUEBONNET BLVD @ OLIPHANT RD
BATON ROUGE, LOUISIANA

File Name : 15076-11 BLUEBONNET BLVD @ OLIPHANT RD
Site Code : 15076-11
Start Date : 10/8/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	BLUEBONNET BLVD Southbound				OLIPHANT RD Westbound				BLUEBONNET BLVD Northbound				OLIPHANT RD Eastbound				
Start Time	Left	Thru	Right	UTRNS	Left	Thru	Right	Peds	Left	Thru	Right	UTRNS	Left	Thru	Right	Peds	Int. Total
07:00	1	295	5	0	6	0	1	0	3	199	5	0	1	0	14	0	530
07:15	2	394	5	0	10	3	5	0	8	307	4	0	1	0	15	0	754
07:30	2	415	6	0	8	0	2	0	6	274	3	0	0	1	17	0	734
07:45	2	408	6	0	9	1	8	0	13	281	4	0	3	1	24	0	760
Total	7	1512	22	0	33	4	16	0	30	1061	16	0	5	2	70	0	2778
08:00	1	361	9	0	6	1	8	0	22	316	4	0	2	1	14	0	745
08:15	0	368	3	1	3	0	2	0	10	285	3	2	2	3	14	0	696
08:30	1	341	4	0	5	1	7	0	9	284	3	2	3	0	15	1	676
08:45	4	310	3	0	3	2	5	0	10	268	4	8	2	1	16	0	636
Total	6	1380	19	1	17	4	22	0	51	1153	14	12	9	5	59	1	2753
09:00	2	269	5	0	2	0	5	0	5	220	4	5	1	0	16	0	534
09:15	3	263	8	2	8	0	3	0	10	232	1	6	4	0	16	0	556
09:30	0	246	6	0	6	2	4	1	11	216	4	6	3	1	12	0	518
09:45	0	221	3	1	3	0	3	0	14	241	5	3	2	1	10	0	507
Total	5	999	22	3	19	2	15	1	40	909	14	20	10	2	54	0	2115
BREAK																	
12:00	2	279	5	4	7	0	2	0	12	321	4	2	1	1	13	0	653
12:15	3	305	3	1	2	0	4	0	12	285	3	4	1	0	13	0	636
12:30	0	297	9	0	3	1	2	0	9	350	5	0	4	1	8	0	689
12:45	1	330	7	2	4	0	2	0	9	283	5	2	5	0	12	0	662
Total	6	1211	24	7	16	1	10	0	42	1239	17	8	11	2	46	0	2640
13:00	4	302	7	1	2	0	6	0	18	356	2	1	2	0	15	1	717
13:15	2	291	6	2	1	0	3	0	13	301	6	2	2	1	22	0	652
13:30	3	269	5	2	1	0	5	0	15	319	4	5	2	0	14	0	644
13:45	4	284	8	1	1	1	6	2	9	332	6	4	3	1	20	0	682
Total	13	1146	26	6	5	1	20	2	55	1308	18	12	9	2	71	1	2695
BREAK																	
15:00	3	232	2	1	2	1	1	1	16	366	4	2	2	0	15	0	648
15:15	6	262	2	1	5	0	1	0	7	335	8	2	1	2	15	0	647
15:30	5	258	6	1	5	1	3	0	17	380	10	5	6	1	10	0	708
15:45	3	276	3	0	1	0	1	0	20	363	6	5	3	0	21	0	702
Total	17	1028	13	3	13	2	6	1	60	1444	28	14	12	3	61	0	2705
16:00	2	272	3	0	3	0	6	0	15	406	5	2	1	2	17	1	735
16:15	5	285	5	0	2	1	1	0	27	364	15	9	6	3	12	0	735
16:30	3	307	11	0	5	2	2	0	27	408	19	6	1	2	18	0	811
16:45	1	283	2	0	4	2	2	0	47	376	14	1	0	0	16	0	748
Total	11	1147	21	0	14	5	11	0	116	1554	53	18	8	7	63	1	3029
17:00	4	295	13	0	6	0	1	0	44	351	32	3	1	3	29	0	782
17:15	3	275	6	2	4	0	0	0	43	369	21	3	1	4	16	0	747
17:30	2	268	4	0	4	0	0	0	32	350	19	1	0	2	17	0	699
17:45	2	246	2	0	4	1	0	0	18	340	6	0	2	4	11	0	636
Total	11	1084	25	2	18	1	1	0	137	1410	78	7	4	13	73	0	2864
Grand Total	76	9507	172	22	135	20	101	4	531	10078	238	91	68	36	497	3	21579
Apprch %	0.8	97.2	1.8	0.2	51.9	7.7	38.8	1.5	4.9	92.1	2.2	0.8	11.3	6	82.3	0.5	
Total %	0.4	44.1	0.8	0.1	0.6	0.1	0.5	0	2.5	46.7	1.1	0.4	0.3	0.2	2.3	0	
Automobiles	75	9362	167	21	129	20	101	3	523	9899	235	91	67	36	490	3	21222
% Automobiles	98.7	98.5	97.1	95.5	95.6	100	100	75	98.5	98.2	98.7	100	98.5	100	98.6	100	98.3
Trucks	0	123	5	1	4	0	0	1	7	142	1	0	1	0	6	0	291
% Trucks	0	1.3	2.9	4.5	3	0	0	25	1.3	1.4	0.4	0	1.5	0	1.2	0	1.3
Buses	1	22	0	0	2	0	0	0	1	37	2	0	0	0	1	0	66
% Buses	1.3	0.2	0	0	1.5	0	0	0	0.2	0.4	0.8	0	0	0	0.2	0	0.3

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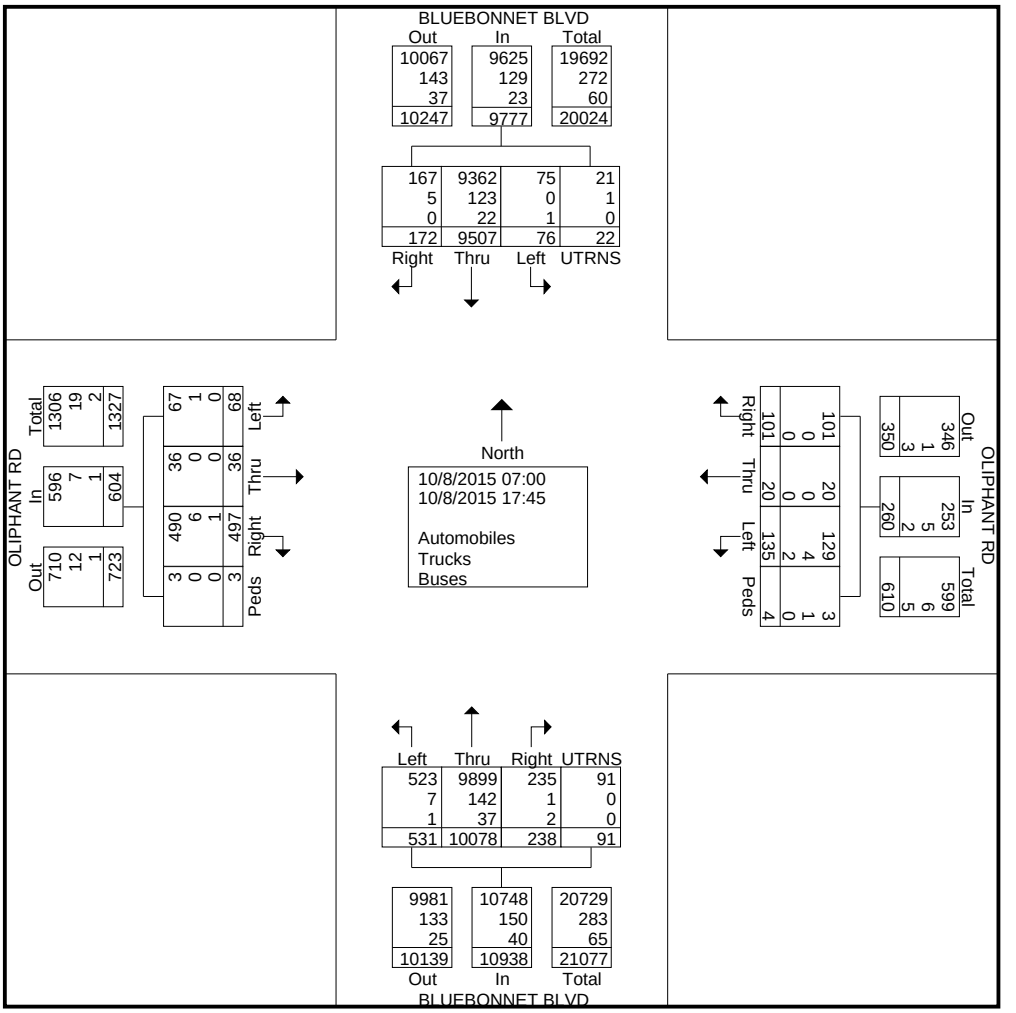

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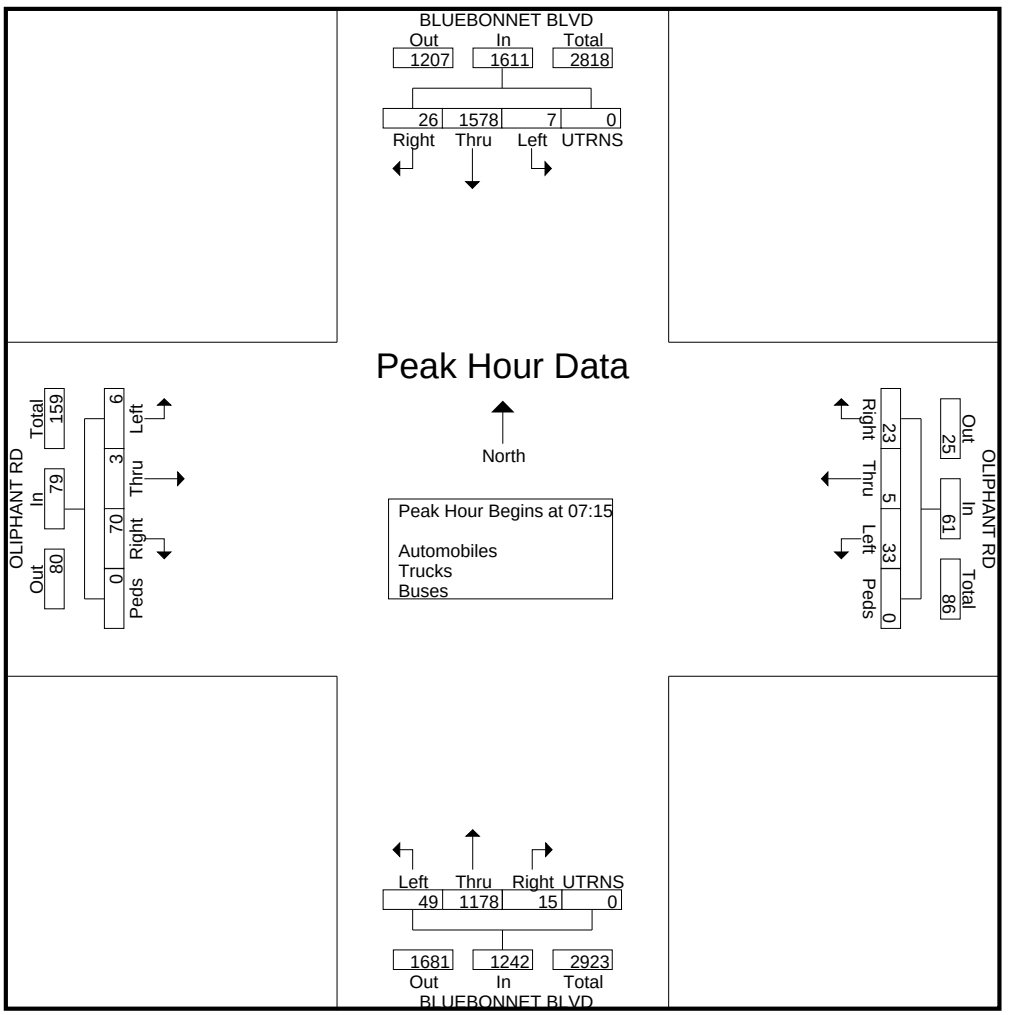
BLUEBONNET BLVD @ OLIPHANT RD
BATON ROUGE, LOUISIANA

File Name : 15076-11 BLUEBONNET BLVD @ OLIPHANT RD
Site Code : 15076-11
Start Date : 10/8/2015

	BLUEBONNET BLVD Southbound					OLIPHANT RD Westbound					BLUEBONNET BLVD Northbound					OLIPHANT RD Eastbound					
Start Time	Left	Thru	Right	UTRNS	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	UTRNS	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15																					
07:15	**2**	394	5	0	401	**10**	**3**	5	0	**18**	8	307	**4**	0	319	1	0	15	0	16	754
07:30	2	**415**	6	0	**423**	8	0	2	0	10	6	274	3	0	283	0	**1**	17	0	18	734
07:45	2	408	6	0	416	9	1	**8**	0	18	13	281	4	0	298	**3**	1	**24**	0	**28**	**760**
08:00	1	361	**9**	0	371	6	1	8	0	15	**22**	**316**	4	0	**342**	2	1	14	0	17	745
Total Volume	7	1578	26	0	1611	33	5	23	0	61	49	1178	15	0	1242	6	3	70	0	79	2993
% App. Total	0.4	98	1.6	0		54.1	8.2	37.7	0		3.9	94.8	1.2	0		7.6	3.8	88.6	0		
PHF	.875	.951	.722	.000	.952	.825	.417	.719	.000	.847	.557	.932	.938	.000	.908	.500	.750	.729	.000	.705	.985



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2911 Westfield Rd
Gulf Breeze, FL 32563
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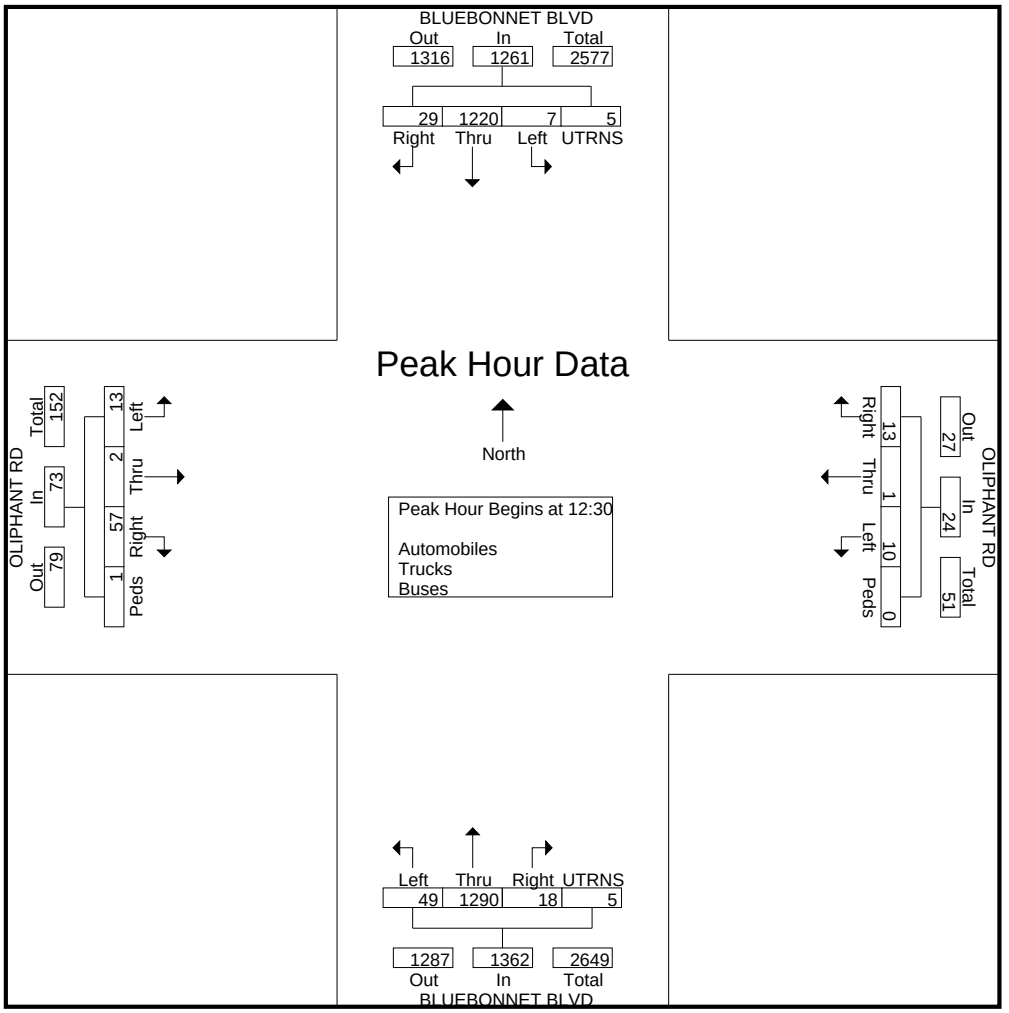
BLUEBONNET BLVD @ OLIPHANT RD
BATON ROUGE, LOUISIANA

File Name : 15076-11 BLUEBONNET BLVD @ OLIPHANT RD
Site Code : 15076-11
Start Date : 10/8/2015
Page No : 4

	BLUEBONNET BLVD Southbound					OLIPHANT RD Westbound					BLUEBONNET BLVD Northbound					OLIPHANT RD Eastbound					
Start Time	Left	Thru	Right	UTRNS	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	UTRNS	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30																					
12:30	0	297	**9**	0	306	3	**1**	2	0	6	9	350	5	0	364	4	**1**	8	0	13	689
12:45	1	**330**	7	**2**	**340**	**4**	0	2	0	6	9	283	5	**2**	299	**5**	0	12	0	17	662
13:00	**4**	302	7	1	314	2	0	**6**	0	**8**	**18**	**356**	2	1	**377**	2	0	15	**1**	18	**717**
13:15	2	291	6	2	301	1	0	3	0	4	13	301	**6**	2	322	2	1	**22**	0	**25**	652
Total Volume	7	1220	29	5	1261	10	1	13	0	24	49	1290	18	5	1362	13	2	57	1	73	2720
% App. Total	0.6	96.7	2.3	0.4		41.7	4.2	54.2	0		3.6	94.7	1.3	0.4		17.8	2.7	78.1	1.4		
PHF	.438	.924	.806	.625	.927	.625	.250	.542	.000	.750	.681	.906	.750	.625	.903	.650	.500	.648	.250	.730	.948



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2911 Westfield Rd
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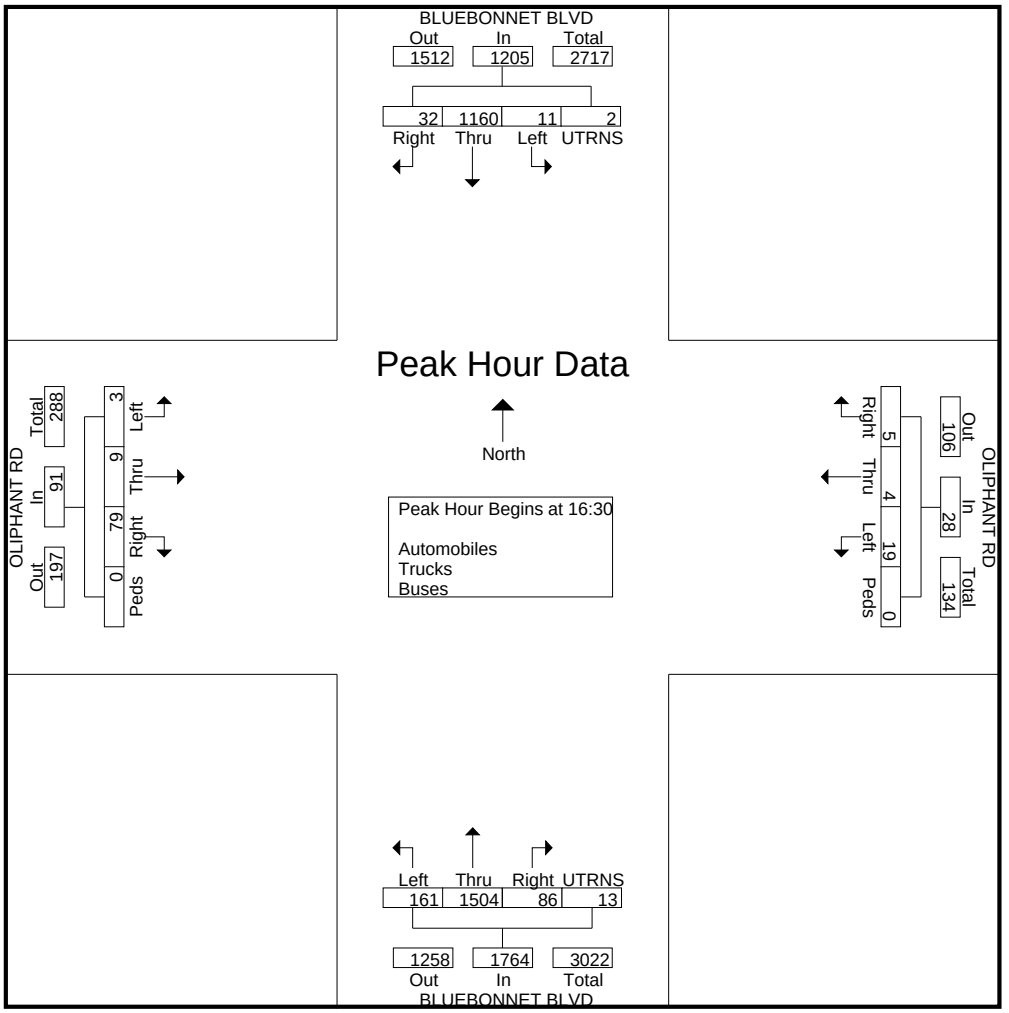
BLUEBONNET BLVD @ OLIPHANT RD
BATON ROUGE, LOUISIANA

File Name : 15076-11 BLUEBONNET BLVD @ OLIPHANT RD
Site Code : 15076-11
Start Date : 10/8/2015
Page No : 5

	BLUEBONNET BLVD Southbound					OLIPHANT RD Westbound					BLUEBONNET BLVD Northbound					OLIPHANT RD Eastbound					
Start Time	Left	Thru	Right	UTRNS	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	UTRNS	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 14:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	3	**307**	11	0	**321**	5	**2**	**2**	0	**9**	27	**408**	19	**6**	**460**	**1**	2	18	0	21	**811**
16:45	1	283	2	0	286	4	2	2	0	8	**47**	376	14	1	438	0	0	16	0	16	748
17:00	**4**	295	**13**	0	312	**6**	0	1	0	7	44	351	**32**	3	430	1	3	**29**	0	**33**	782
17:15	3	275	6	**2**	286	4	0	0	0	4	43	369	21	3	436	1	**4**	16	0	21	747
Total Volume	11	1160	32	2	1205	19	4	5	0	28	161	1504	86	13	1764	3	9	79	0	91	3088
% App. Total	0.9	96.3	2.7	0.2		67.9	14.3	17.9	0		9.1	85.3	4.9	0.7		3.3	9.9	86.8	0		
PHF	.688	.945	.615	.250	.938	.792	.500	.625	.000	.778	.856	.922	.672	.542	.959	.750	.563	.681	.000	.689	.952



File Name: G:\DATA\2015\Private\15076\15076-11 BLUEBONNET BLVD @ OLIPHANT RD.ppd
Start Date: 10/8/2015
Start Time: 7:00:00 AM
Site Code: 15076-11
Comment 1: BLUEBONNET BLVD @ OLIPHANT RD
Comment 2: BATON ROUGE, LOUISIANA
Comment 3:
Comment 4:

HGV % by Movement

	BLUEBONNET BLVD				OLIPHANT RD				BLUEBONNET BLVD				OLIPHANT RD			
Start Time	Left	Thru	Right	UTRNS	Left	Thru	Right	Peds	Left	Thru	Right	UTRNS	Left	Thru	Right	Peds
07:00	0%	4%	0%	#DIV/0!	17%	#DIV/0!	0%		0%	1%	0%	#DIV/0!	0%	#DIV/0!	0%	
07:15	0%	1%	0%	#DIV/0!	0%	0%	0%		13%	2%	0%	#DIV/0!	0%	#DIV/0!	7%	
07:30	0%	1%	17%	#DIV/0!	0%	#DIV/0!	0%		0%	3%	0%	#DIV/0!	#DIV/0!	0%	6%	
07:45	50%	1%	0%	#DIV/0!	0%	0%	0%		0%	3%	0%	#DIV/0!	0%	0%	0%	
08:00	0%	2%	0%	#DIV/0!	0%	0%	0%		5%	1%	0%	#DIV/0!	0%	0%	0%	
08:15	#DIV/0!	1%	0%	0%	0%	#DIV/0!	0%		0%	1%	0%	0%	0%	0%	0%	
08:30	0%	2%	0%	#DIV/0!	20%	0%	0%		0%	2%	0%	0%	0%	#DIV/0!	0%	
08:45	0%	2%	0%	#DIV/0!	0%	0%	0%		0%	2%	0%	0%	0%	0%	0%	
09:00	0%	2%	0%	#DIV/0!	0%	#DIV/0!	0%		0%	1%	0%	0%	0%	#DIV/0!	0%	
09:15	0%	2%	13%	0%	0%	#DIV/0!	0%		0%	2%	0%	0%	0%	#DIV/0!	0%	
09:30	#DIV/0!	1%	0%	#DIV/0!	0%	0%	0%		0%	2%	0%	0%	0%	0%	0%	
09:45	#DIV/0!	3%	0%	0%	0%	#DIV/0!	0%		7%	2%	0%	0%	0%	0%	0%	
10:00																
10:15																
10:30																
10:45																
11:00																
11:15																
11:30																
11:45																
12:00	0%	1%	20%	0%	14%	#DIV/0!	0%		0%	3%	0%	0%	0%	0%	8%	
12:15	0%	2%	33%	0%	0%	#DIV/0!	0%		0%	2%	0%	0%	0%	#DIV/0!	0%	
12:30	#DIV/0!	1%	0%	#DIV/0!	0%	0%	0%		0%	1%	0%	#DIV/0!	0%	0%	13%	
12:45	0%	2%	0%	0%	0%	#DIV/0!	0%		0%	2%	0%	0%	0%	#DIV/0!	0%	
13:00	0%	1%	0%	0%	0%	#DIV/0!	0%		0%	3%	0%	0%	0%	#DIV/0!	0%	
13:15	0%	1%	0%	0%	0%	#DIV/0!	0%		0%	2%	0%	0%	0%	0%	5%	
13:30	0%	1%	0%	0%	0%	#DIV/0!	0%		0%	3%	0%	0%	0%	#DIV/0!	7%	
13:45	0%	2%	0%	0%	0%	0%	0%		0%	2%	0%	0%	0%	0%	0%	
14:00																
14:15																
14:30																
14:45																
15:00	0%	1%	0%	0%	0%	0%	0%		6%	2%	0%	0%	0%	#DIV/0!	0%	
15:15	0%	1%	0%	0%	20%	#DIV/0!	0%		0%	1%	13%	0%	0%	0%	0%	
15:30	0%	1%	17%	0%	20%	0%	0%		6%	2%	10%	0%	0%	0%	10%	
15:45	0%	2%	0%	#DIV/0!	0%	#DIV/0!	0%		5%	2%	0%	0%	0%	#DIV/0!	0%	
16:00	0%	1%	0%	#DIV/0!	0%	#DIV/0!	0%		7%	0%	0%	0%	0%	0%	0%	
16:15	0%	1%	0%	#DIV/0!	0%	0%	0%		0%	2%	0%	0%	0%	0%	0%	
16:30	0%	1%	0%	#DIV/0!	0%	0%	0%		0%	1%	5%	0%	0%	0%	0%	
16:45	0%	1%	0%	#DIV/0!	0%	0%	0%		2%	1%	0%	0%	#DIV/0!	#DIV/0!	0%	
17:00	0%	2%	0%	#DIV/0!	17%	#DIV/0!	0%		0%	1%	0%	0%	0%	0%	0%	
17:15	0%	0%	0%	50%	0%	#DIV/0!	#DIV/0!		0%	0%	0%	0%	100%	0%	0%	
17:30	0%	1%	0%	#DIV/0!	0%	#DIV/0!	#DIV/0!		0%	2%	0%	0%	#DIV/0!	0%	0%	
17:45	0%	1%	0%	#DIV/0!	0%	0%	#DIV/0!		0%	4%	0%	#DIV/0!	0%	0%	0%	

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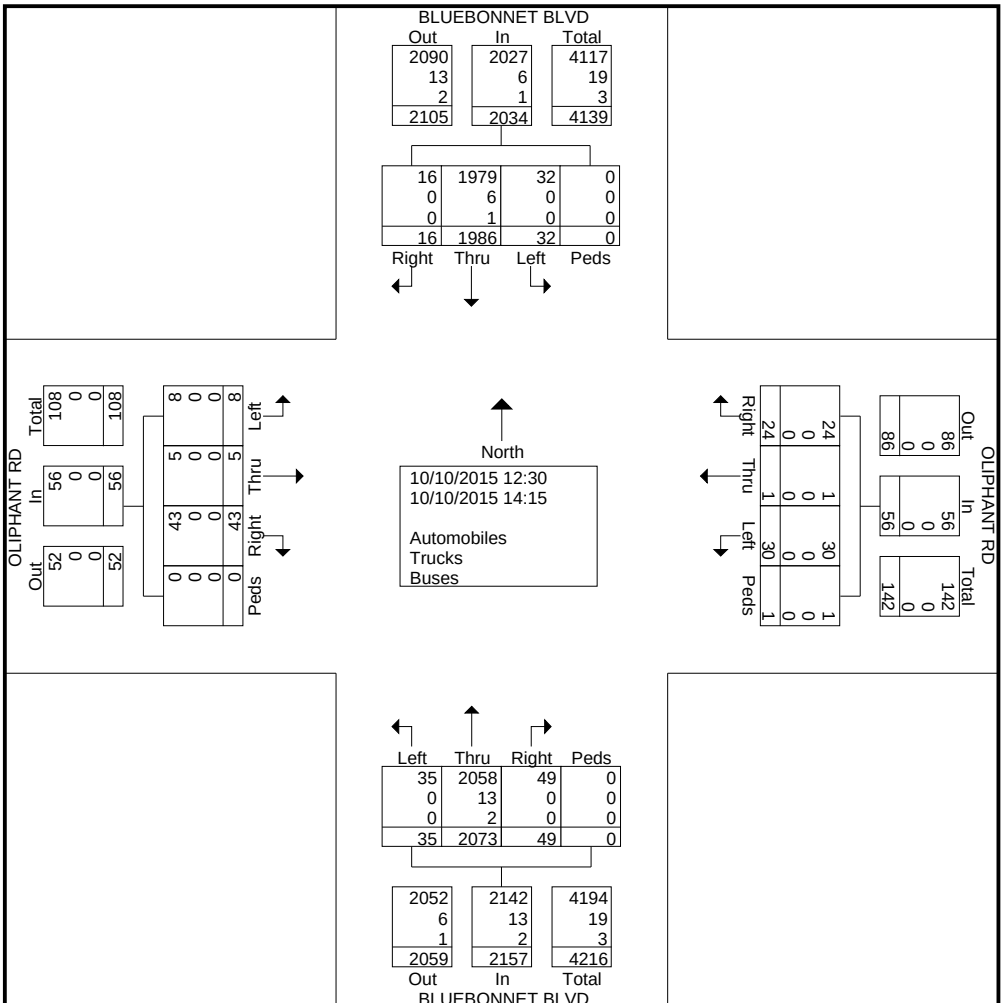
BLUEBONNET BLVD @ OLIPHANT RD
BATON ROUGE, LOUISIANA

File Name : 15076-11 SAT BLUEBONNET BLVD@ OLIPHANT RD
Site Code : 15076-11
Start Date : 10/10/2015
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

	BLUEBONNET BLVD Southbound				OLIPHANT RD Westbound				BLUEBONNET BLVD Northbound				OLIPHANT RD Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
12:30	1	230	1	0	5	1	3	0	3	272	6	0	2	0	8	0	532
12:45	10	254	3	0	1	0	3	0	6	274	11	0	0	0	5	0	567
Total	11	484	4	0	6	1	6	0	9	546	17	0	2	0	13	0	1099
13:00	5	216	2	0	3	0	4	1	4	247	7	0	1	0	6	0	496
13:15	2	248	3	0	2	0	6	0	3	248	7	0	0	0	6	0	525
13:30	2	282	2	0	4	0	1	0	2	296	2	0	1	1	1	0	594
13:45	3	252	0	0	6	0	1	0	7	247	6	0	0	1	8	0	531
Total	12	998	7	0	15	0	12	1	16	1038	22	0	2	2	21	0	2146
14:00	4	254	5	0	3	0	3	0	7	256	5	0	4	3	6	0	550
14:15	5	250	0	0	6	0	3	0	3	233	5	0	0	0	3	0	508
Grand Total	32	1986	16	0	30	1	24	1	35	2073	49	0	8	5	43	0	4303
Apprch %	1.6	97.6	0.8	0	53.6	1.8	42.9	1.8	1.6	96.1	2.3	0	14.3	8.9	76.8	0	
Total %	0.7	46.2	0.4	0	0.7	0	0.6	0	0.8	48.2	1.1	0	0.2	0.1	1	0	
Automobiles	32	1979	16	0	30	1	24	1	35	2058	49	0	8	5	43	0	4281
% Automobiles	100	99.6	100	0	100	100	100	100	100	99.3	100	0	100	100	100	0	99.5
Trucks	0	6	0	0	0	0	0	0	0	13	0	0	0	0	0	0	19
% Trucks	0	0.3	0	0	0	0	0	0	0	0.6	0	0	0	0	0	0	0.4
Buses	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	3
% Buses	0	0.1	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0.1



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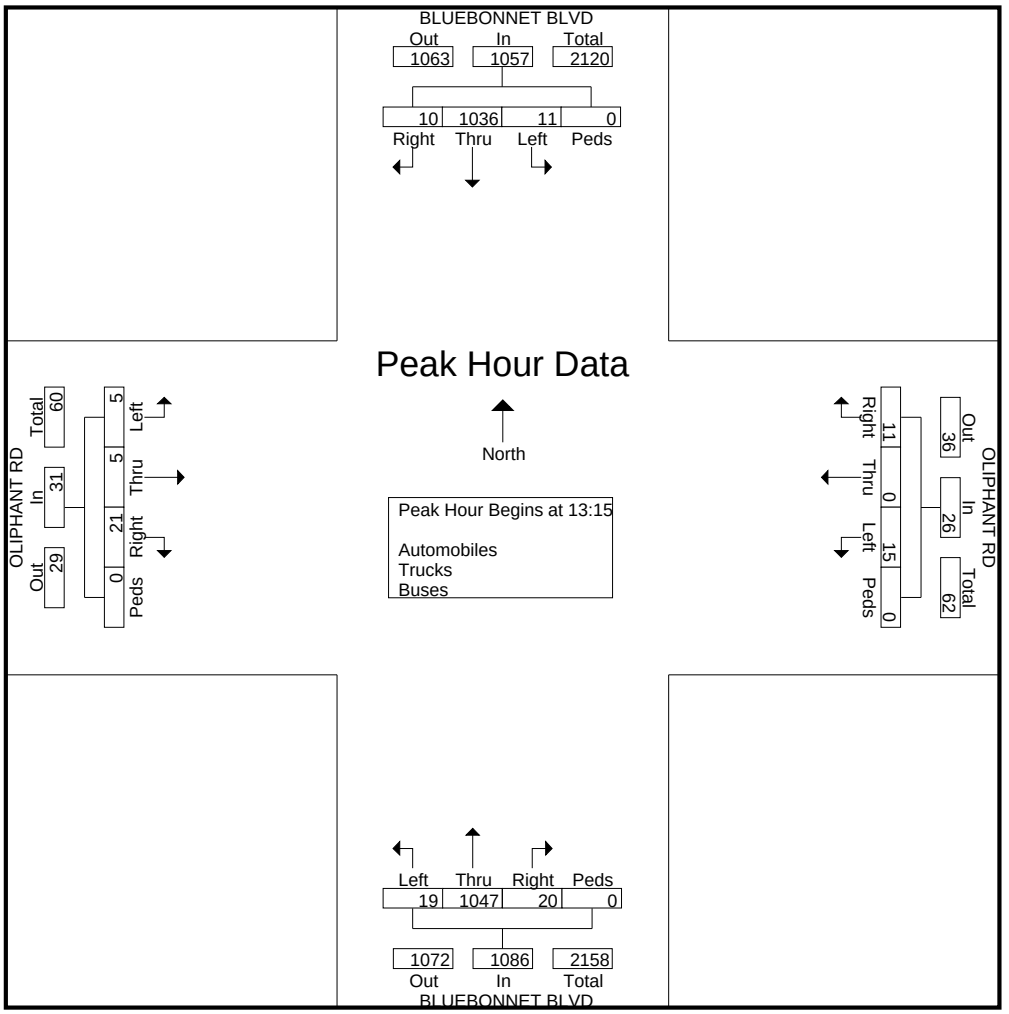
BLUEBONNET BLVD @ OLIPHANT RD
BATON ROUGE, LOUISIANA

File Name : 15076-11 SAT BLUEBONNET BLVD@ OLIPHANT RD
Site Code : 15076-11
Start Date : 10/10/2015
Page No : 2

	BLUEBONNET BLVD Southbound					OLIPHANT RD Westbound					BLUEBONNET BLVD Northbound					OLIPHANT RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:30 to 14:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 13:15																					
13:15	2	248	3	0	253	2	0	**6**	0	**8**	3	248	**7**	0	258	0	0	6	0	6	525
13:30	2	**282**	2	0	**286**	4	0	1	0	5	2	**296**	2	0	**300**	1	1	1	0	3	**594**
13:45	3	252	0	0	255	**6**	0	1	0	7	**7**	247	6	0	260	0	1	**8**	0	9	531
14:00	**4**	254	**5**	0	263	3	0	3	0	6	7	256	5	0	268	**4**	**3**	6	0	**13**	550
Total Volume	11	1036	10	0	1057	15	0	11	0	26	19	1047	20	0	1086	5	5	21	0	31	2200
% App. Total	1	98	0.9	0		57.7	0	42.3	0		1.7	96.4	1.8	0		16.1	16.1	67.7	0		
PHF	.688	.918	.500	.000	.924	.625	.000	.458	.000	.813	.679	.884	.714	.000	.905	.313	.417	.656	.000	.596	.926



File Name: G:\DATA\2015\Private\15076\15076-11 SAT BLUEBONNET BLVD@ OLIPHANT RD.ppd
Start Date: 10/10/2015
Start Time: 12:30:00 PM
Site Code: 15076-11
Comment 1: BLUEBONNET BLVD @ OLIPHANT RD
Comment 2: BATON ROUGE, LOUISIANA
Comment 3:
Comment 4:

HGV % by Movement

	BLUEBONNET BLVD				OLIPHANT RD				BLUEBONNET BLVD				OLIPHANT RD			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
12:30	0%	0%	0%		0%	0%	0%		0%	1%	0%		0%	#DIV/0!	0%	
12:45	0%	1%	0%		0%	#DIV/0!	0%		0%	0%	0%		#DIV/0!	#DIV/0!	0%	
13:00	0%	0%	0%		0%	#DIV/0!	0%		0%	0%	0%		0%	#DIV/0!	0%	
13:15	0%	1%	0%		0%	#DIV/0!	0%		0%	0%	0%		#DIV/0!	#DIV/0!	0%	
13:30	0%	0%	0%		0%	#DIV/0!	0%		0%	0%	0%		0%	0%	0%	
13:45	0%	0%	#DIV/0!		0%	#DIV/0!	0%		0%	2%	0%		#DIV/0!	0%	0%	
14:00	0%	0%	0%		0%	#DIV/0!	0%		0%	2%	0%		0%	0%	0%	
14:15	0%	0%	#DIV/0!		0%	#DIV/0!	0%		0%	0%	0%		#DIV/0!	#DIV/0!	0%	

Appendix C: TURNING MOVEMENT COUNTS

Figure C-1: 2015 Essen Lane Turning Movement Counts

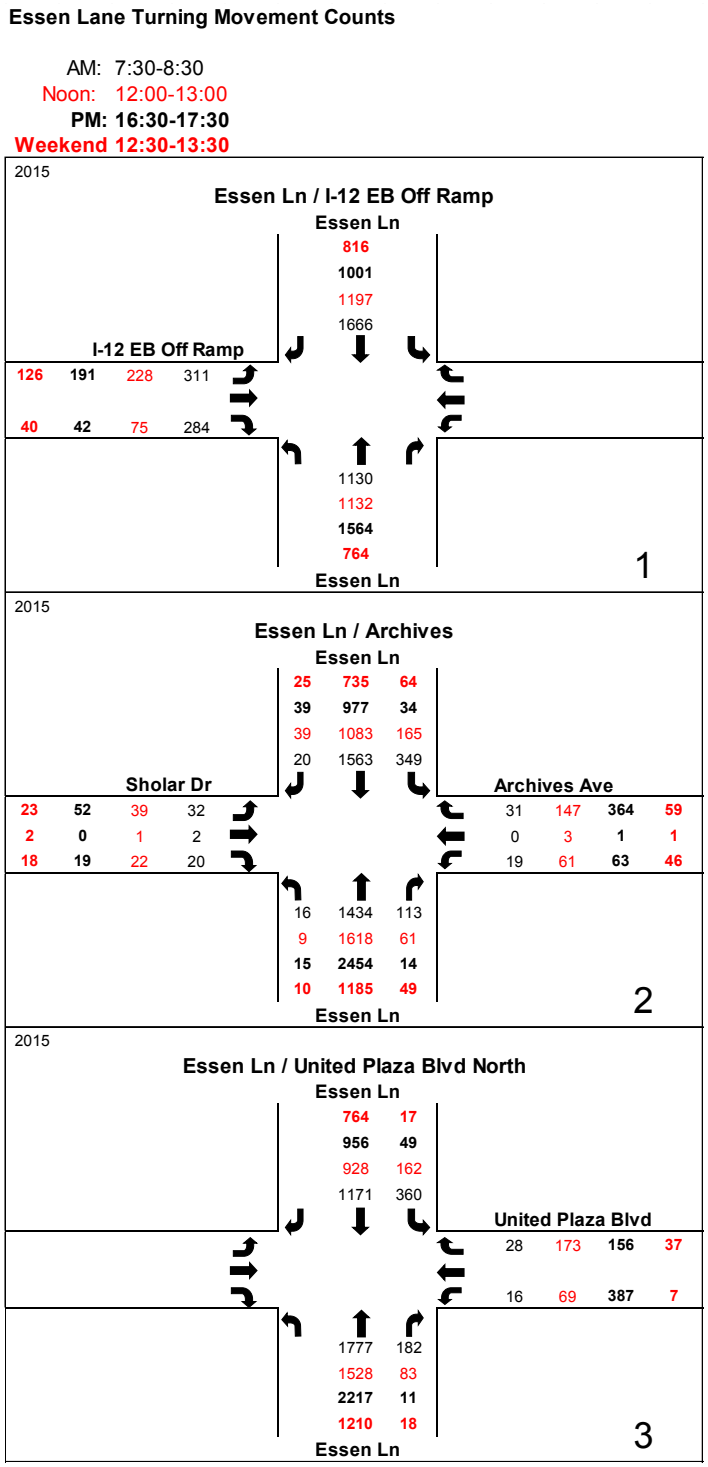


Figure C-2: 2015 Bluebonnet Boulevard Turning Movement Counts

Bluebonnet Boulevard Turning Movement Counts

AM: 7:30-8:30
Noon: 12:15-13:15
PM: 16:30-17:30
Weekend: 12:45-1:45

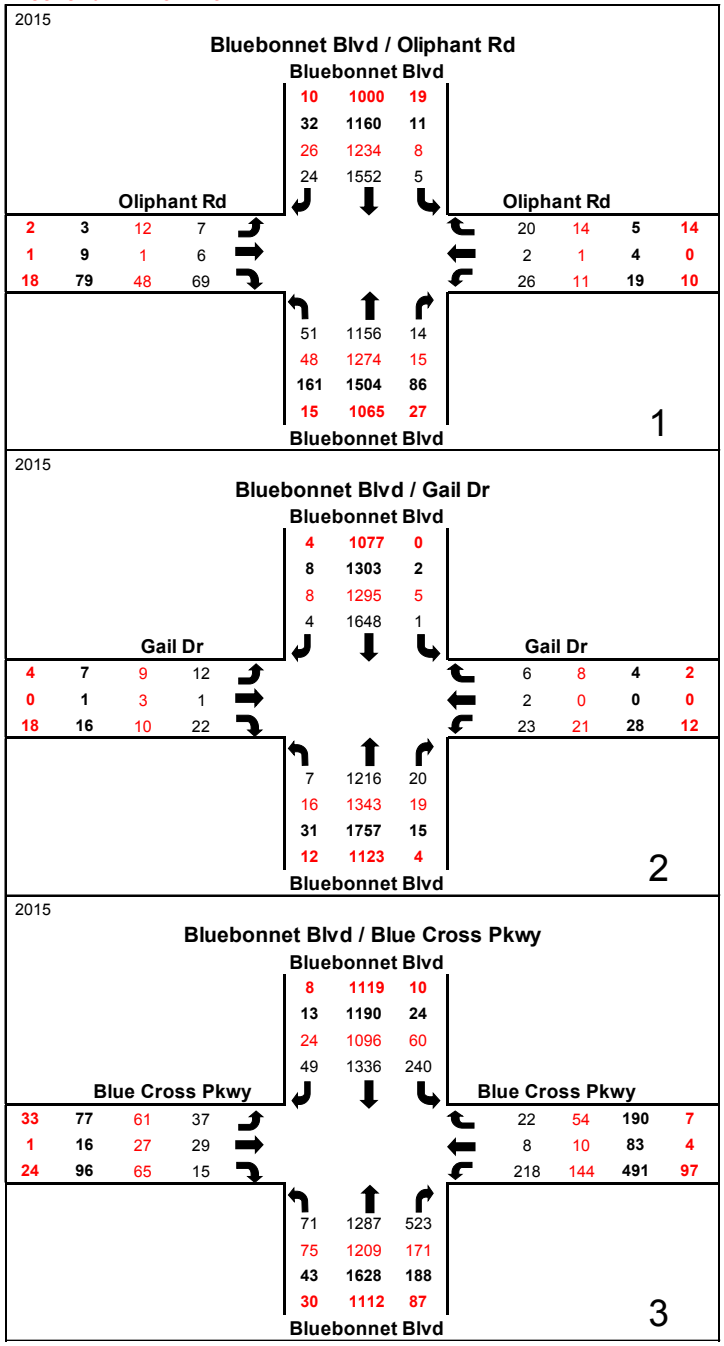


Figure C-3: 2015 Bluebonnet Boulevard Turning Movement Counts

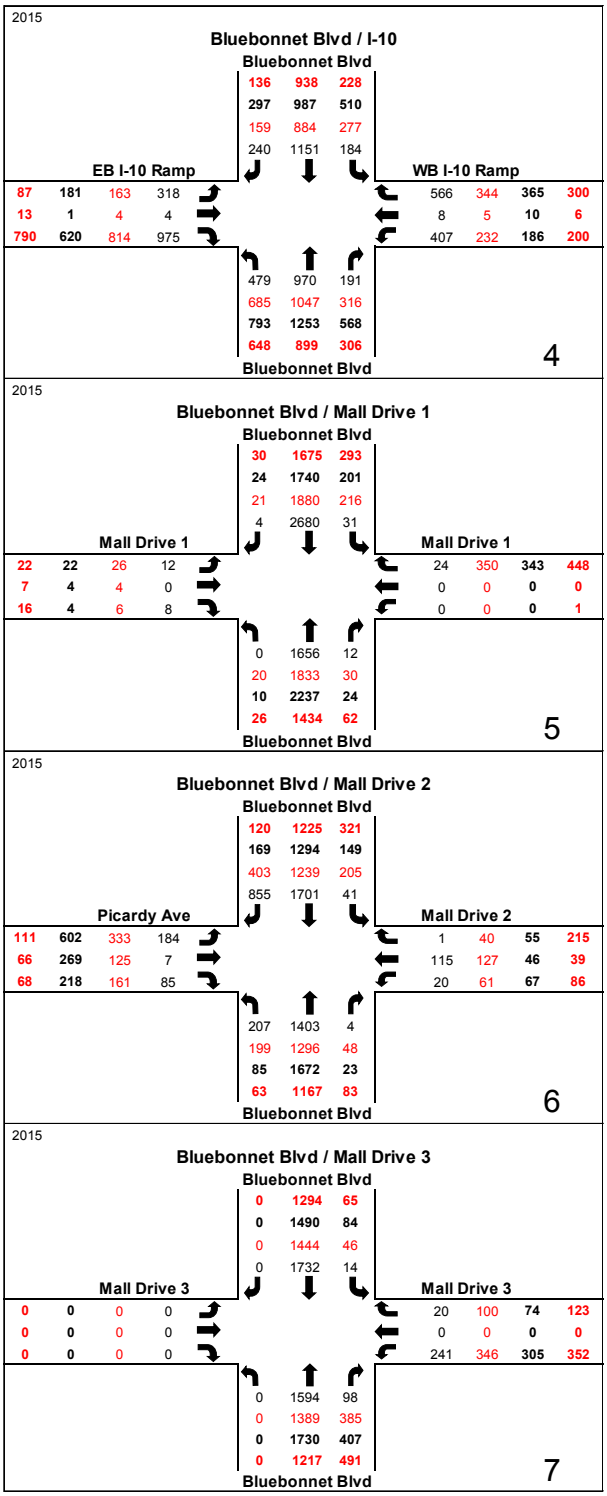
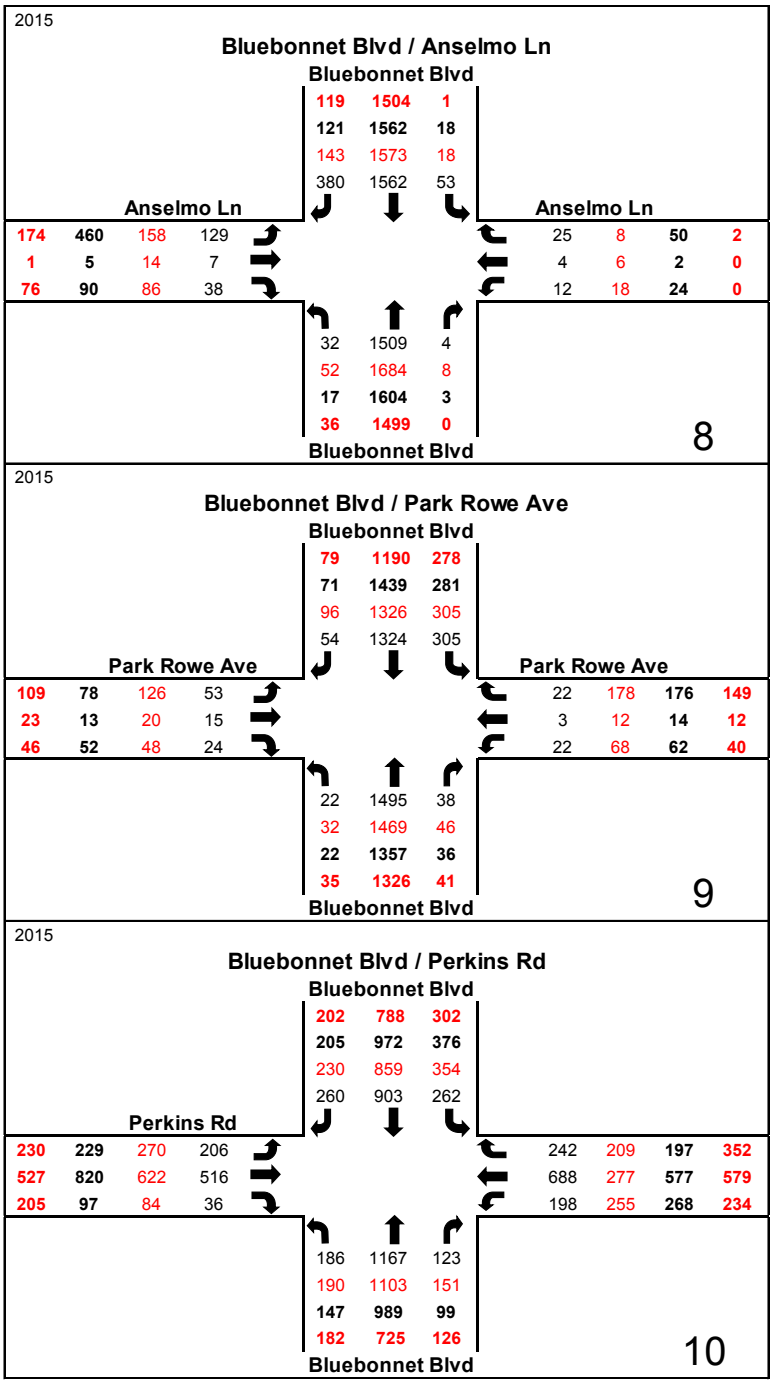


Figure C-4: 2015 Bluebonnet Boulevard Turning Movement Counts



Appendix D : UNMET DEMAND COUNTS

Figure D-1: 2015 Essen Lane Unmet Demand

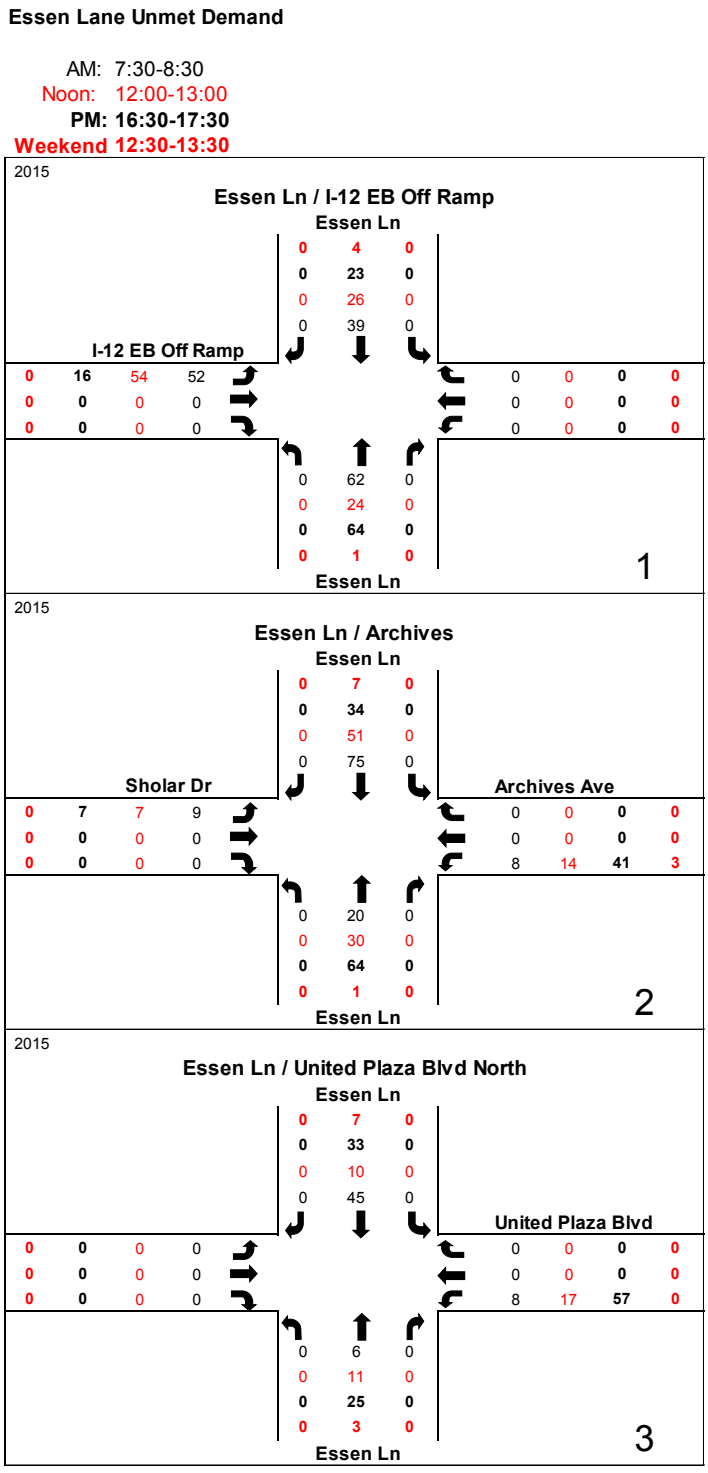


Figure D-2: 2015 Bluebonnet Boulevard Unmet Demand

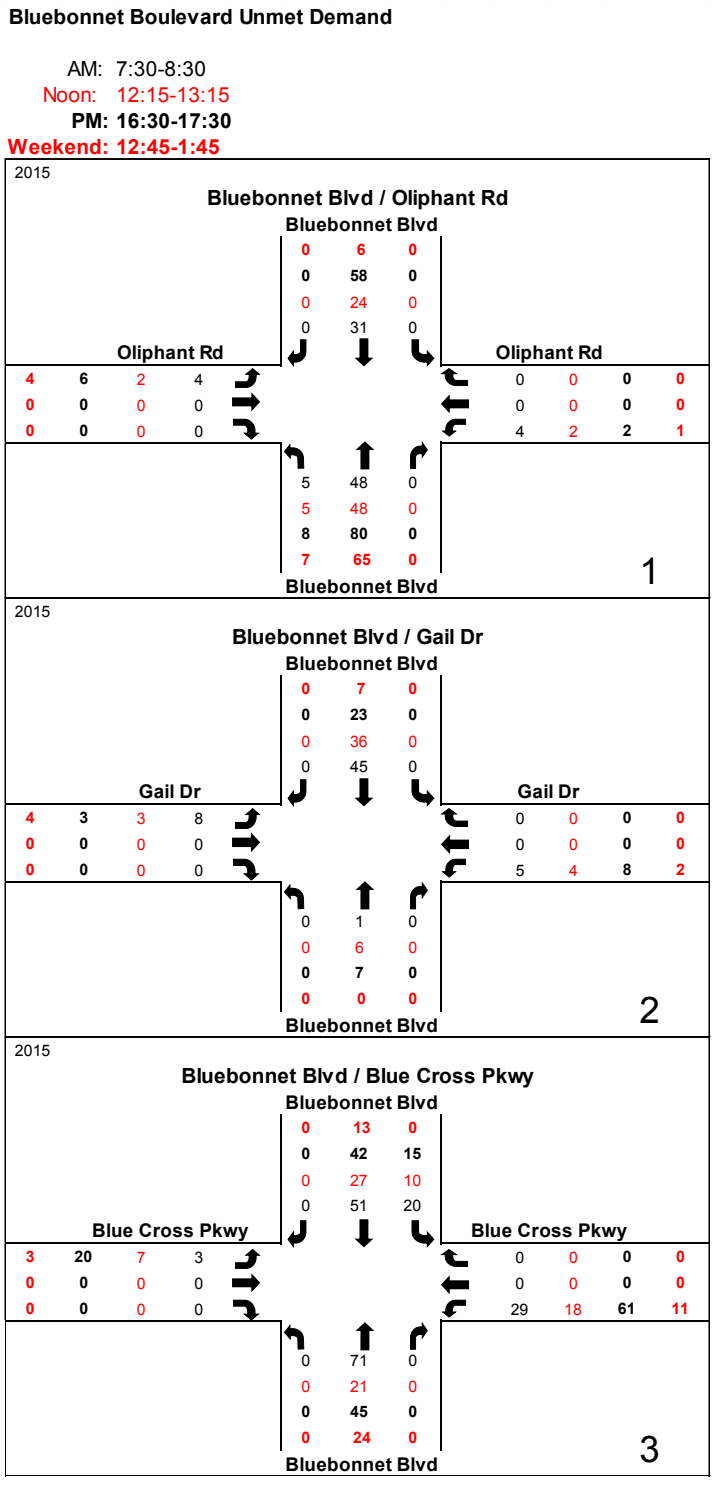


Figure D-3: 2015 Bluebonnet Boulevard Unmet Demand

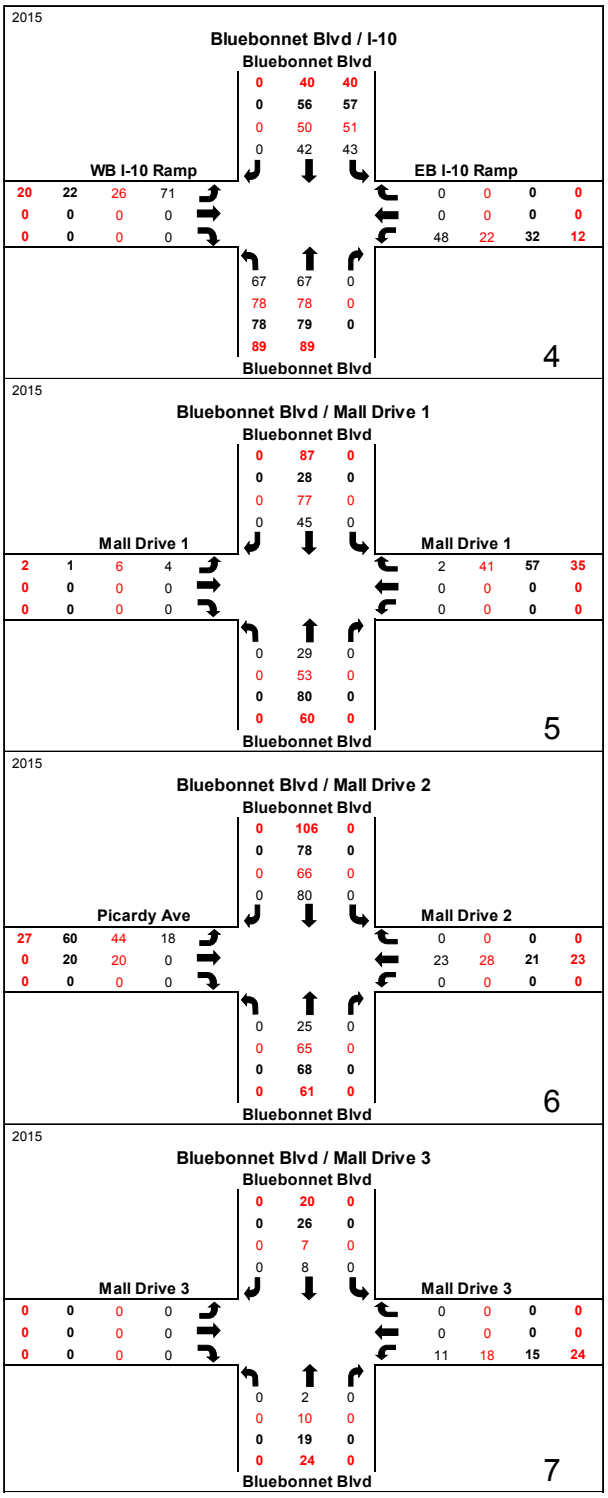
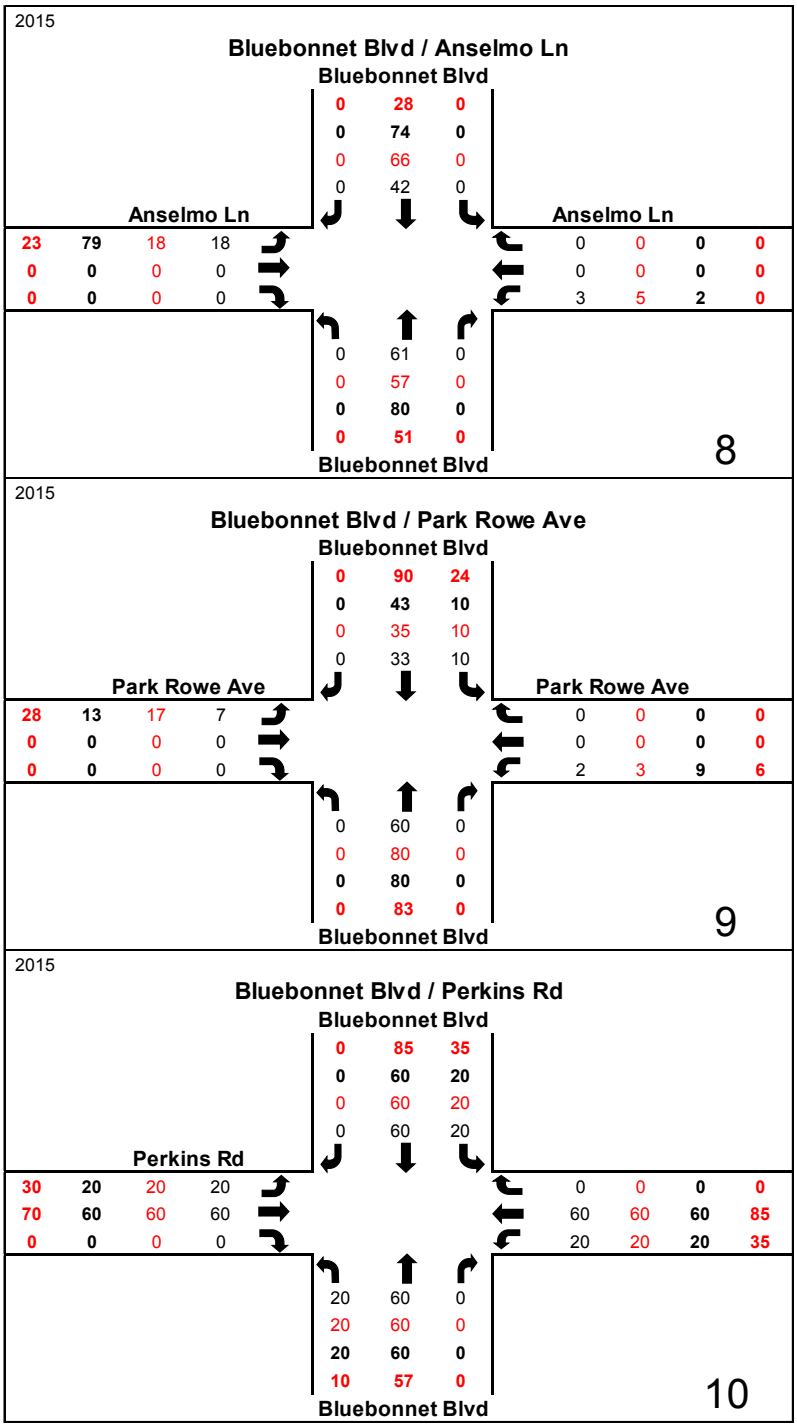


Figure D-4: 2015 Bluebonnet Boulevard Unmet Demand



Appendix E : ESSEN LANE WIDENING TRAFFIC COUNTS

Figure E-1: 2011 Essen Lane Widening Traffic Counts

Essen Lane Turning Movement Counts

Existing Raw Count Data
AM: 7:30-8:30
Noon: 12:00-13:00
PM: 16:30-17:30

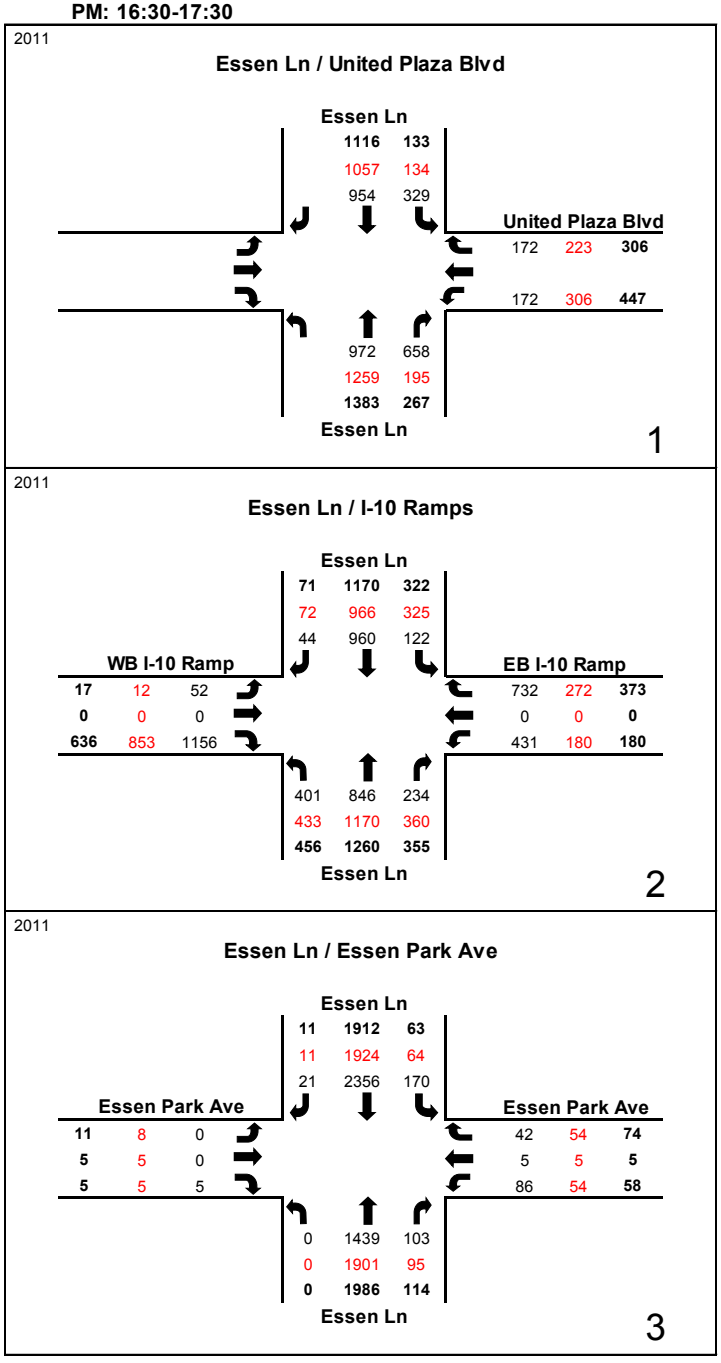


Figure E-2: 2011 Essen Lane Widening Traffic Counts Continued

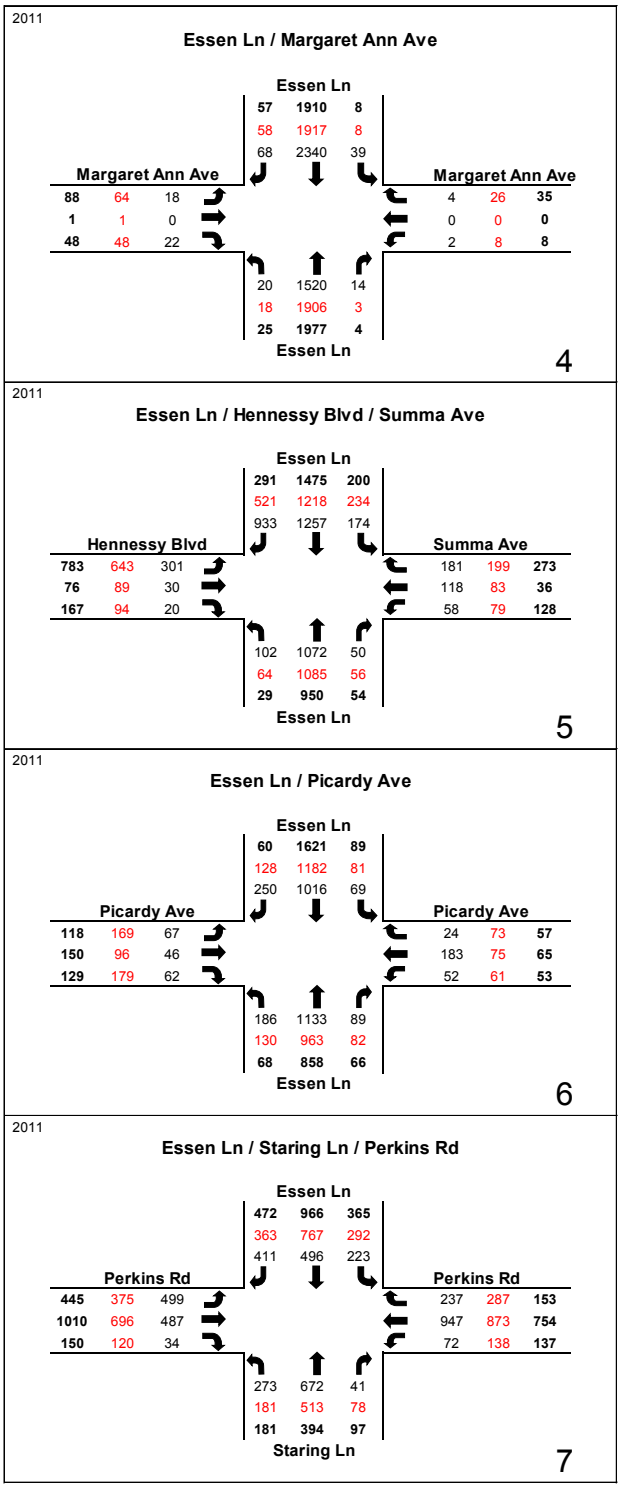


Figure E-3: 2011 Essen Lane Widening Unmet Demand

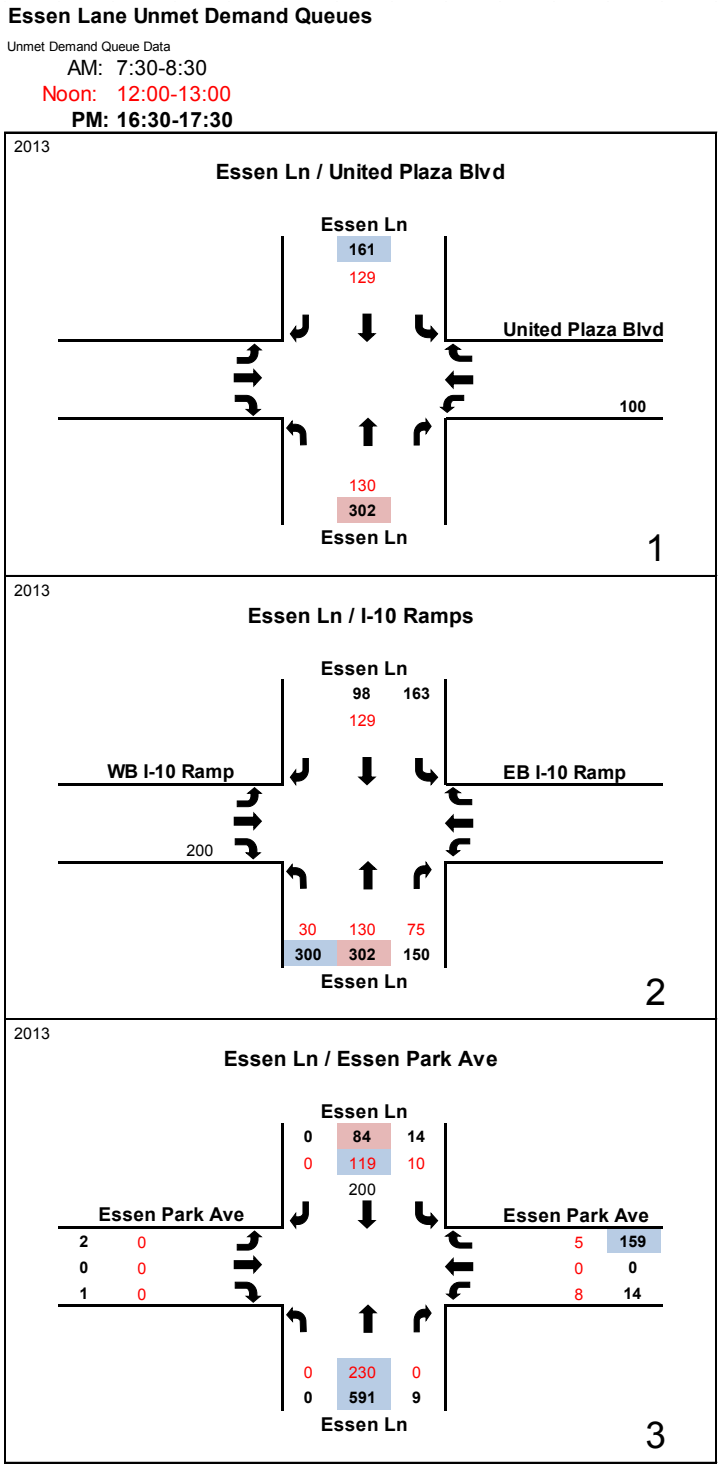
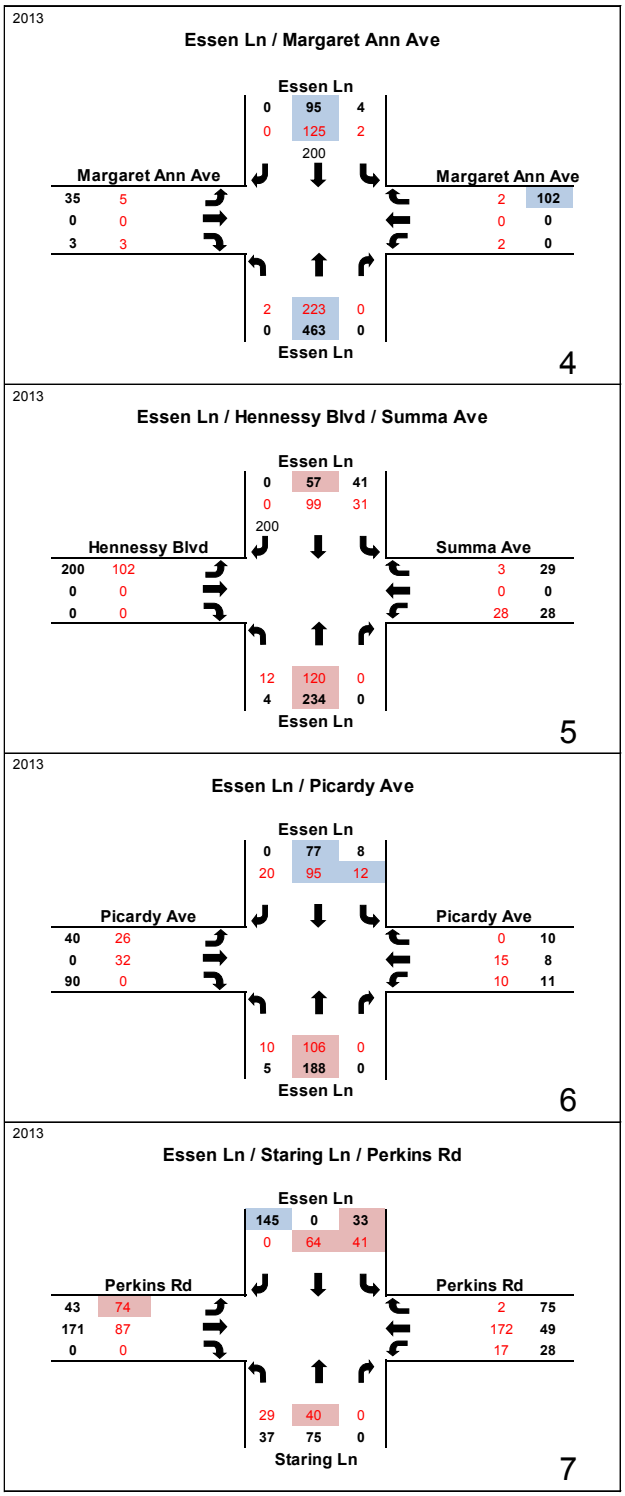


Figure E-4: 2011 Essen Lane Widening Unmet Demand Continued



Appendix F : FIELD OBSERVATIONS

Bluebonnet Boulevard AM Peak Period

- Overall, Bluebonnet Boulevard was observed without much congestion during the morning peak period; however, there is a noticeable area of disruption southbound on Bluebonnet between I-10 and Mall Drive 2/Picardy Avenue. This disruption seems to occur due to southbound vehicles on Bluebonnet trying to weave across traffic coming from the I-10 EB off ramp to turn right at Picardy Avenue, which is about ¼ mile downstream. Queues appeared to clear every cycle at each intersection apart from the southbound left movement from Bluebonnet to Blue Cross Parkway. Significant queueing occurs with this movement; however, the southbound through lanes were not obstructed as there is a two-way left turn lane of about 600 feet for cars to queue in.

Bluebonnet Boulevard Noon Peak Period

- Bluebonnet Boulevard was also found to operate mostly free of congestion during the noon peak period. There was still a bit of an issue with weaving between the I-10 EB off-ramp and Mall Drive 2/Picardy Avenue; however, during the noon peak period this seemed to stem more from vehicles from I-10 attempting to turn left at Mall Drive 2. There was a little bit more queuing northbound on Bluebonnet at Jefferson Highway, but the queues did clear each cycle.

Bluebonnet Boulevard PM Peak Period

- Much more significant congestion was observed on Bluebonnet Boulevard during the evening peak period than during the morning and noontime periods. Slow-moving traffic was located on Bluebonnet Boulevard northbound at multiple locations as well as on Bluebonnet Boulevard southbound. Specifically, queuing was observed on Bluebonnet Boulevard northbound between Park Rowe Avenue and Anselmo Drive, between Mall Drive 2/Picardy Avenue and I-10, and between Oliphant Road and Jefferson Highway. In the southbound direction of Bluebonnet Boulevard, queueing was observed between Blue Cross Parkway and I-10 in the left lane due to high demand of vehicles aiming to turn left onto I-10 EB.

Bluebonnet Boulevard Weekend Peak Period

- During our observations, Bluebonnet operated with very little to no congestion during the weekend peak period. There was no significant queueing or disruption observed within the study area.

Essen Lane AM Peak Period

- Essen Lane displayed a few different areas of congestion during our observations in the morning peak period. Northbound, there was congestion south of Anselmo Lane to Picardy Avenue which seemed to be caused by queuing from left turn vehicles at Picardy Avenue as well as vehicles traveling from Essen Lane southbound to Anselmo Lane, blocking the left lane of northbound Essen Lane traffic. The queueing generated by left turns at Picardy Avenue seems like it can be blamed on the current construction which has eliminated the two-way left turn lane that would have allowed vehicles to queue up in. Those vehicles now queue up in the left through lane. There was also congestion present northbound around I-10, which also seemed to be due to the current construction at the interchange that caused vehicles to travel slowly through the area. In the southbound direction of Essen Lane some congestion occurred around I-10, most likely due to construction once again. Also, there was some congestion generated by the previously described situation at Anselmo Lane. The situation at Anselmo Lane caused queuing that blocked the left-most through lane on Essen Lane.

Essen Lane Noon Peak Period

- During the noon peak period, there was congestion observed in the Our Lady of the Lake area of the corridor, between Picardy Avenue and Margret Ann Avenue in both the northbound and southbound directions. Traffic through this area moved slowly and queues did not clear every cycle, specifically at Hennessey Boulevard. The Essen Lane at Hennessey Boulevard intersection appears to be over capacity, thus creating the congestion that was observed. The issue present at Anselmo Lane during the morning peak period was found to once again be a problem during the noon peak period.

Essen Lane PM Peak Period

- The evening peak period was found to present significant congestion and delay along Essen Lane, primarily in the northbound direction. In the southbound direction some queuing and congestion was observed at the I-10 interchange from the southbound left turn lane queueing back into the southbound through lanes on Essen. Another small area of congestion in the southbound direction of Essen Lane occurred once again at Anselmo Lane; however, this is less of an issue than during the morning and noontime due to severe congestion in the northbound direction of Essen Lane providing more gaps to allow vehicles onto Anselmo Lane. As for the northbound direction of Essen Lane, the congestion is quite severe as vehicles queue from I-10 back to Perkins Road and slightly beyond. Delays are significant as our observation vehicle required about 45 minutes to traverse from Perkins Road to I-10. Some of the observed congestion could be slightly worse due to the ongoing construction, but this corridor has long been a route of congestion and delay during the evening peak period. North of I-10, Essen Lane operates freely in the northbound direction.

Essen Lane Weekend Peak Period

- During our observations, Bluebonnet operated with very little congestion during the weekend peak period. The only significant queueing in the study area was observed to be for the southbound left turn lane from Essen Lane to Perkins Road where it did not clear every cycle. There was some additional queuing between intersections in the northbound direction, but this was due to the lack of a two-way left turn lane during the ongoing construction.

Appendix G: BACKGROUND GROWTH RATE

The latest Regional Travel Demand Forecasting Model (TDM) has been provided by the Capital Region Planning Commission (CRPC) for the years 2010 and 2037. The Capital Region Planning Commission has provided model runs for three scenarios: a No Build scenario with the existing roadway geometry, a Build scenario with the Dijon Extension added, and a supplemental scenario with Midway Road (a connection between Picardy Avenue and Dijon Extension just to the west of Baton Rouge General Hospital) added, but not Dijon Extension. The ADT results for the 2010 and 2037 TDM runs are shown in **Figure G-1 through Figure G-4**.

ESSEN LN
I-10
SUMMA AVE
PICARDY AVE
KENILWORTH PKWY
PERKINS RD
STARING LN
BLUEBONNET BLVD
HIGHLAND RD
SIEGEN LN

Master Traffic Concepts

Legend

#.# K - Daily Volume in Thousands (K)

V/C Ratio and Level of Service (LOS)

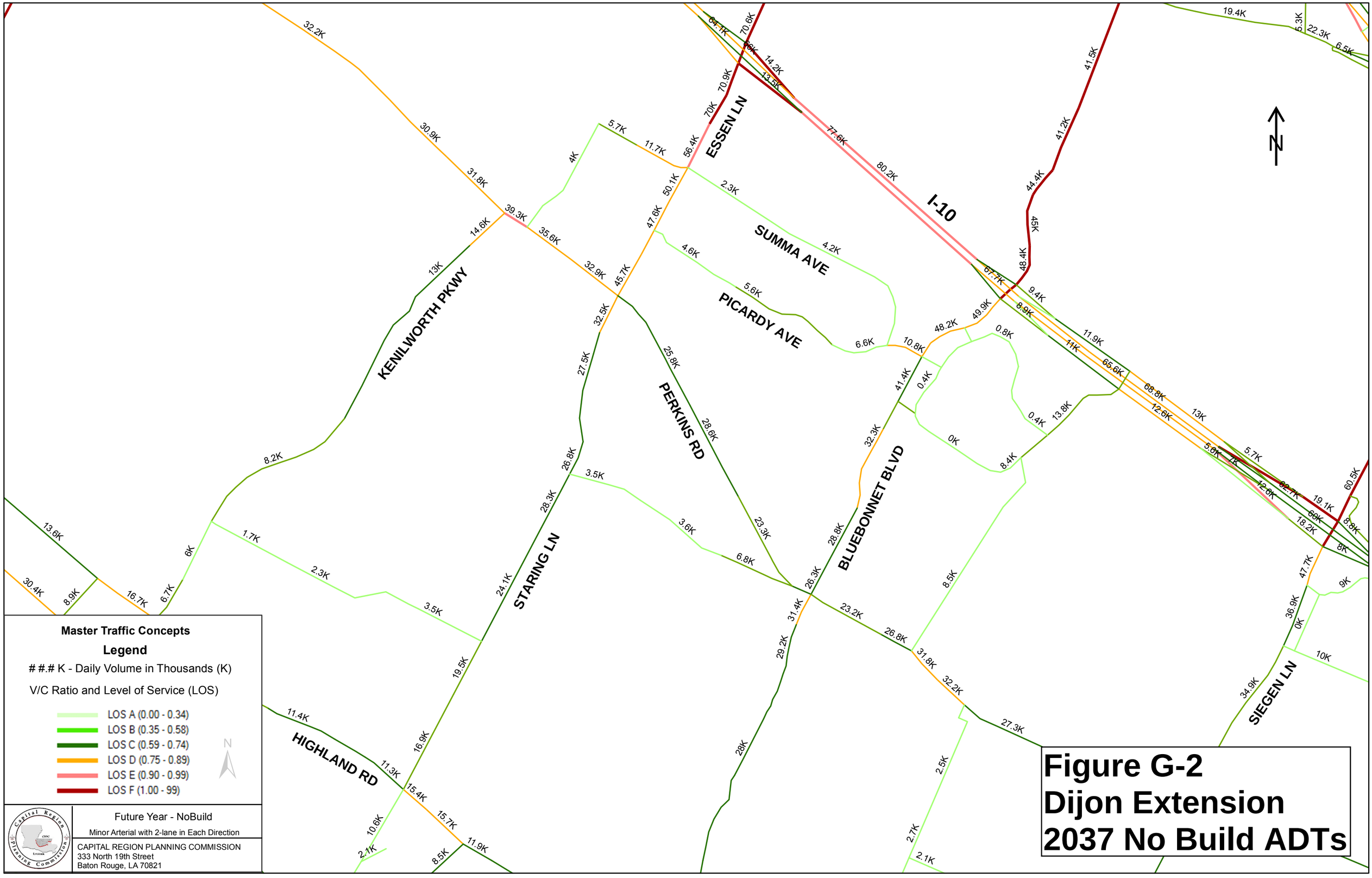
- LOS A (0.00 - 0.34)
- LOS B (0.35 - 0.58)
- LOS C (0.59 - 0.74)
- LOS D (0.75 - 0.89)
- LOS E (0.90 - 0.99)
- LOS F (1.00 - 99)

Base Year - NoBuild

Minor Arterial with 2-lane in Each Direction

CAPITAL REGION PLANNING COMMISSION
333 North 19th Street
Baton Rouge, LA 70821

Figure G-1
Dijon Extension
2010 No Build ADTs


KENILWORTH PKWY
ESSEN LN
I-10
SUMMA AVE
PICARDY AVE
PERKINS RD
STARING LN
BLUEBONNET BLVD
HIGHLAND RD
SIEGEN LN
N
Master Traffic Concepts
Legend
#.# K - Daily Volume in Thousands (K)
V/C Ratio and Level of Service (LOS)
LOS A (0.00 - 0.34)
LOS B (0.35 - 0.58)
LOS C (0.59 - 0.74)
LOS D (0.75 - 0.89)
LOS E (0.90 - 0.99)
LOS F (1.00 - 99)
Future Year - NoBuild
Minor Arterial with 2-lane in Each Direction
CAPITAL REGION PLANNING COMMISSION
333 North 19th Street
Baton Rouge, LA 70821
Figure G-2
Dijon Extension
2037 No Build ADTs

I-10
KENILWORTH PKWY
ESSEN LN
SUMMA AVE
DIJON DR EXT
PICARDY AVE
PERKINS RD
STARING LN
BLUEBONNET BLVD
HIGHLAND RD
SIEGEN LN

Master Traffic Concepts

Legend

#.# K - Daily Volume in Thousands (K)

V/C Ratio and Level of Service (LOS)

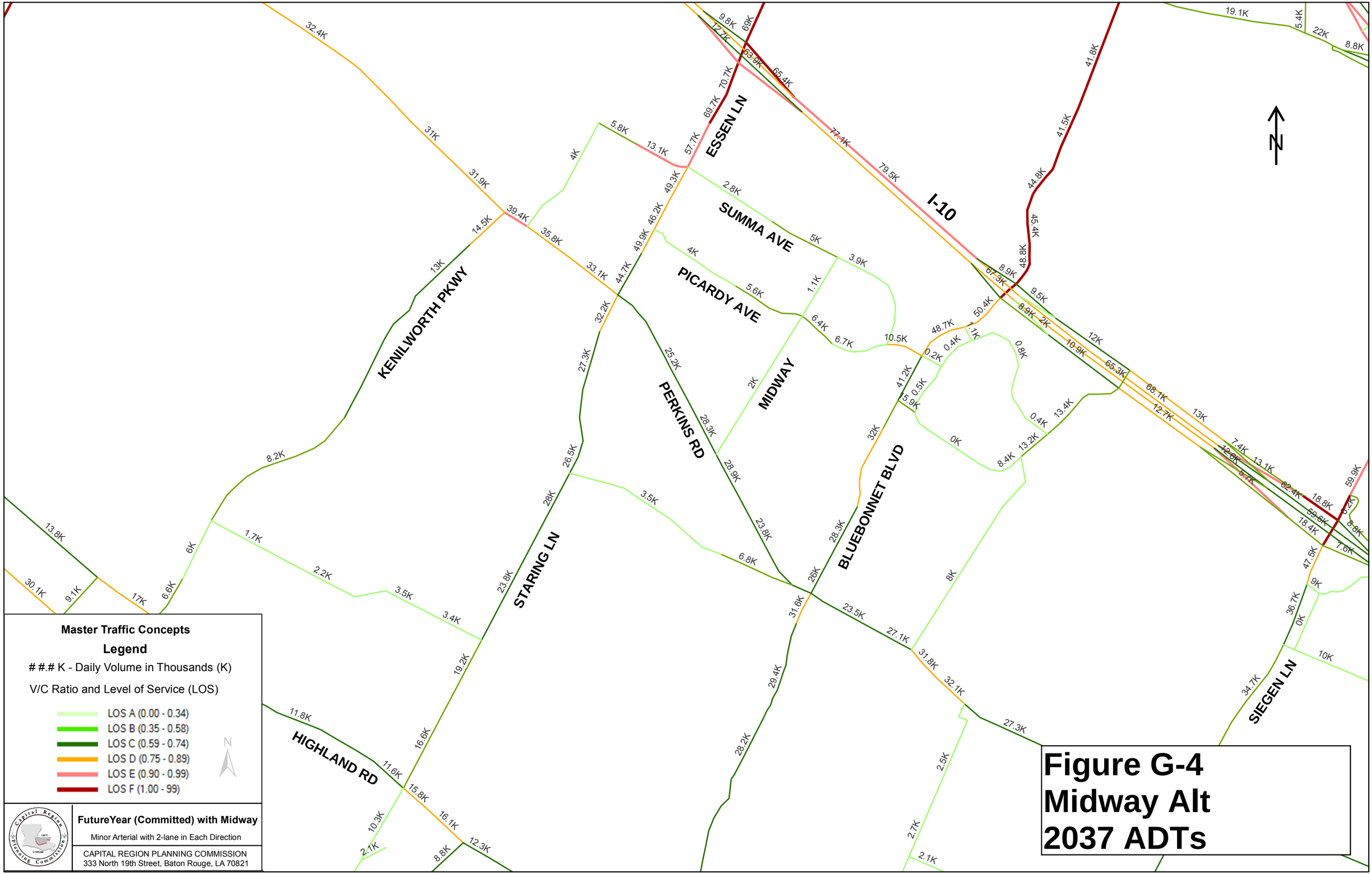
- LOS A (0.00 - 0.34)
- LOS B (0.35 - 0.58)
- LOS C (0.59 - 0.74)
- LOS D (0.75 - 0.89)
- LOS E (0.90 - 0.99)
- LOS F (1.00 - 99)

Future Year (Build) Essen To Bluebonnet

Minor Arterial with 2-lane in Each Direction)

CAPITAL REGION PLANNING COMMISSION
333 North 19th Street
Baton Rouge, LA 70821

Figure G-3
Dijon Extension
2037 Build ADTs


ESSEN LN
I-10
SUMMA AVE
PICARDY AVE
MIDWAY
PERKINS RD
KENILWORTH PKWY
BLUEBONNET BLVD
STARING LN
HIGHLAND RD
SIEGEN LN
N
Master Traffic Concepts
Legend
#.# K - Daily Volume in Thousands (K)
V/C Ratio and Level of Service (LOS)
LOS A (0.00 - 0.34)
LOS B (0.35 - 0.58)
LOS C (0.59 - 0.74)
LOS D (0.75 - 0.89)
LOS E (0.90 - 0.99)
LOS F (1.00 - 99)
FutureYear (Committed) with Midway
Minor Arterial with 2-lane in Each Direction
CAPITAL REGION PLANNING COMMISSION
333 North 19th Street, Baton Rouge, LA 70821
Figure G-4
Midway Alt
2037 ADTs

The Capital Region Planning Commission TransCAD model has been provided for the years 2010 and 2037. Based on information from the Capital Region Planning Commission's Regional Travel Demand Forecasting Model during a typical 24-hour weekday period, the 2010 base year roadway network has a total of approximately 201,389 vehicle miles traveled (VMT) within the study area as shown in **Figure G-5**, and the No Build scenario has a total of 227,195 VMT in the forecast year of 2037. This change is equal to a 0.45% annual growth rate from the year 2010 to the year 2037. In order to estimate traffic for purposes of this study, a 0.45% annual growth rate will be applied when growing the peak hour counts from 2015 to 2037 to estimate the design hour volumes for the No Build scenario.

The growth rate report calculations are presented at the end of **Appendix G**. Peak hour volumes grown using the background growth rate to the years 2017 and 2037 are presented in **Figure G-6 through Figure G-11** for Essen Lane and **Figure G-12 through Figure G-17** for Bluebonnet Boulevard.

Figure G-5: Roadway Network Map

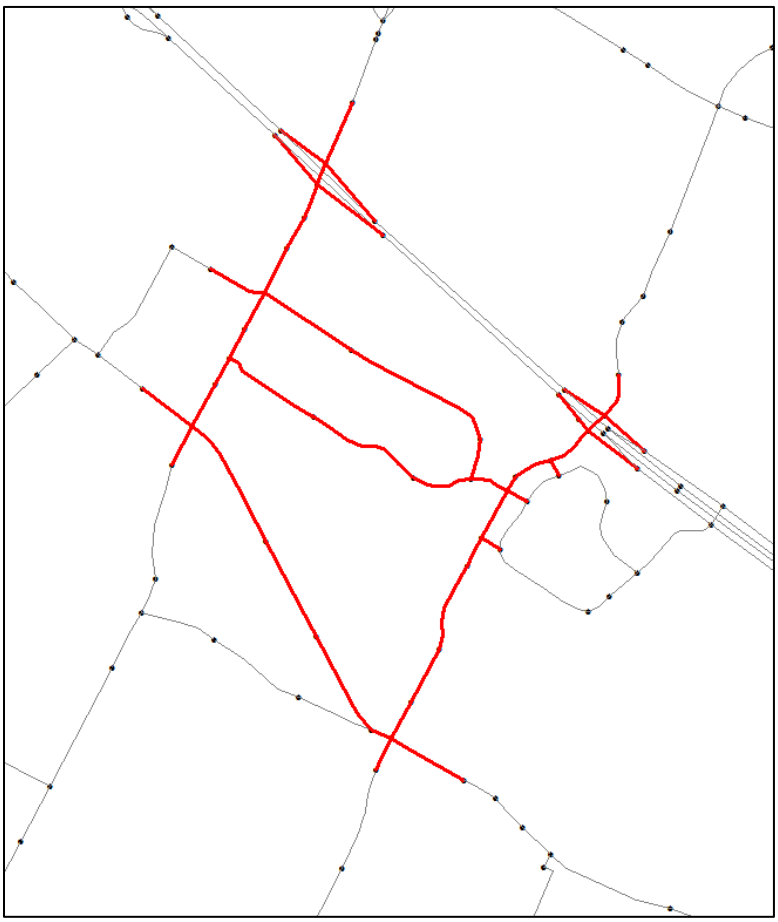


Figure G-6: Essen Lane 2017 Background Growth

Essen Lane Turning Movement Volumes

AM: 7:30-8:30
Noon: 12:00-13:00
PM: 16:30-17:30

0.45% Growth Rate
2 Years

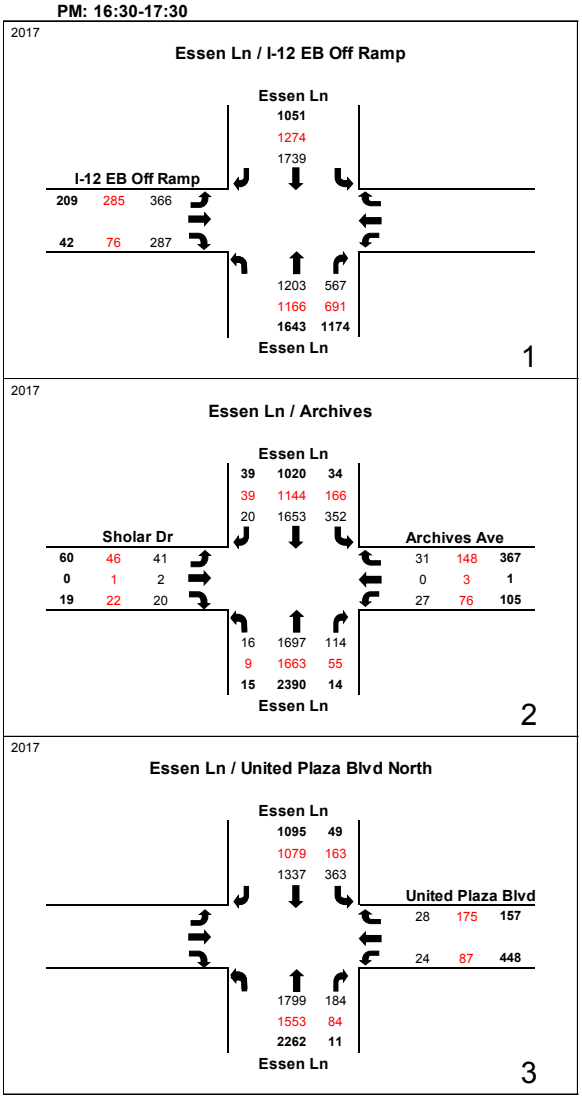


Figure G-7: Essen Lane 2017 Background Growth

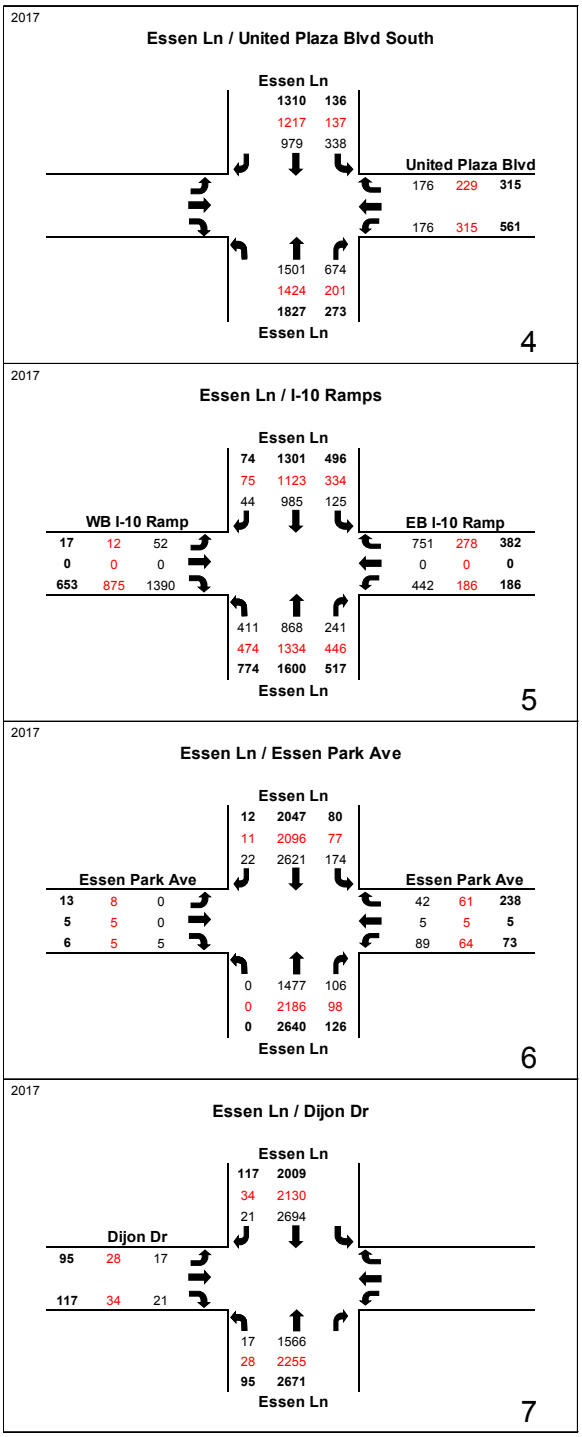


Figure G-8: Essen Lane 2017 Background Growth

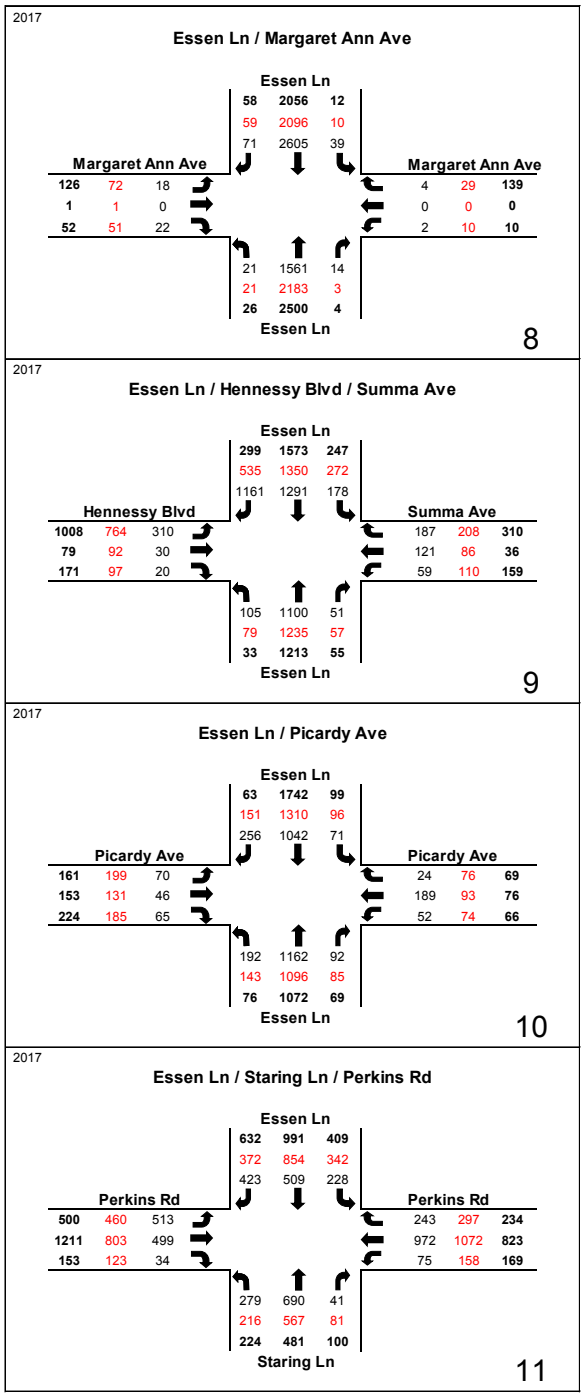


Figure G-9: Essen Lane 2037 Background Growth

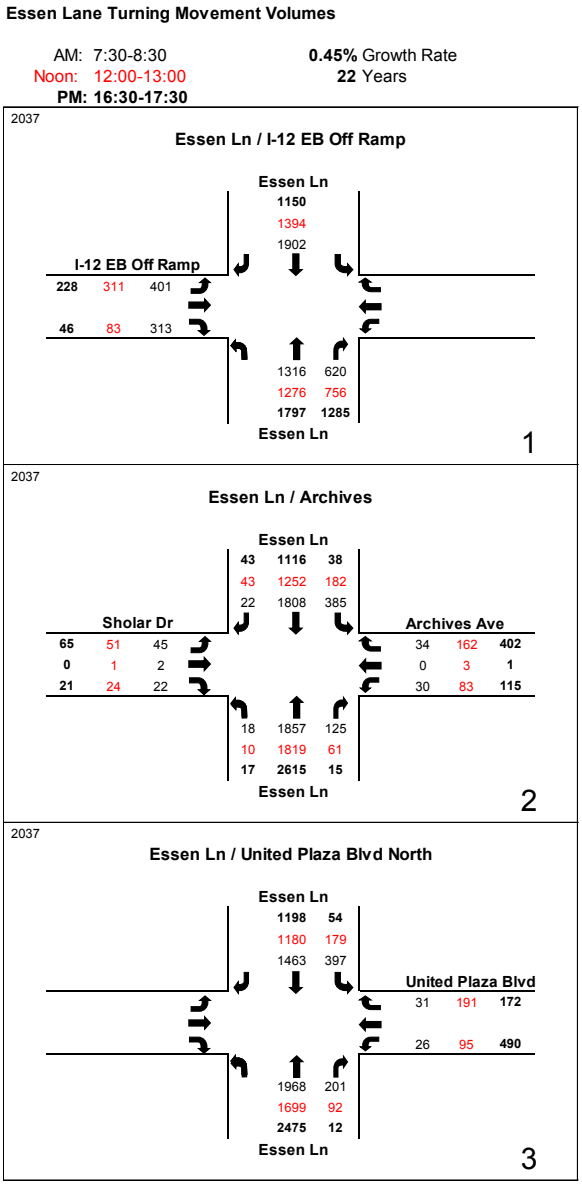


Figure G-10: Essen Lane 2037 Background Growth

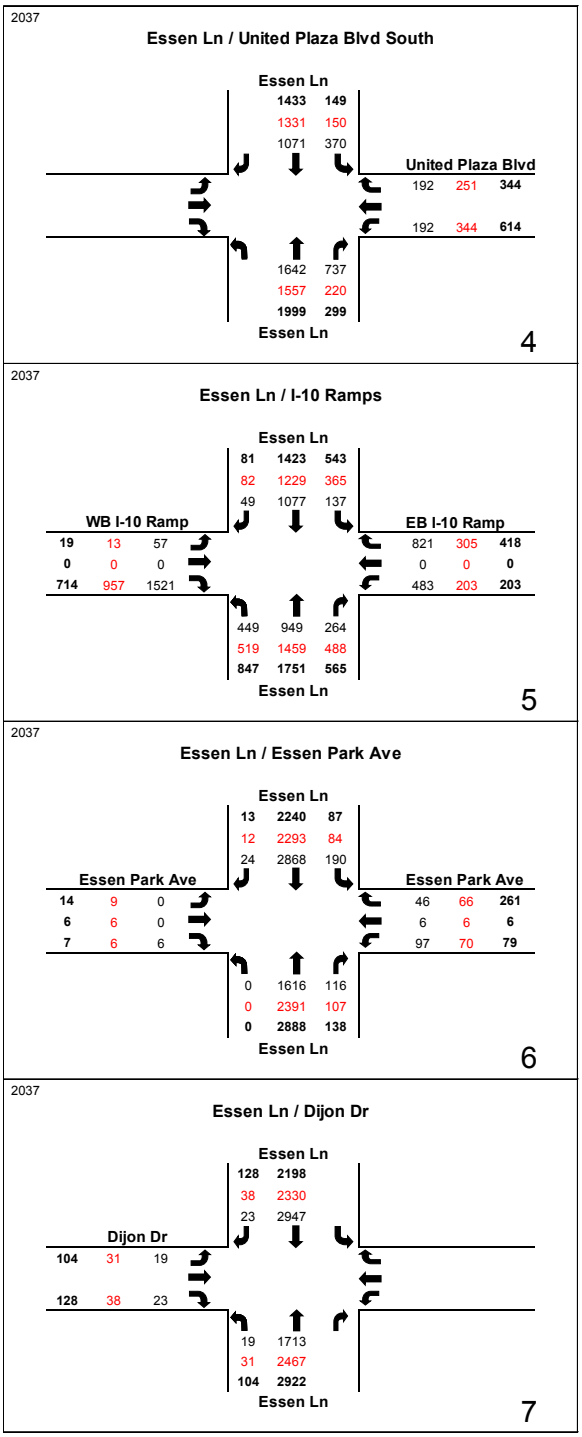


Figure G-11: Essen Lane 2037 Background Growth

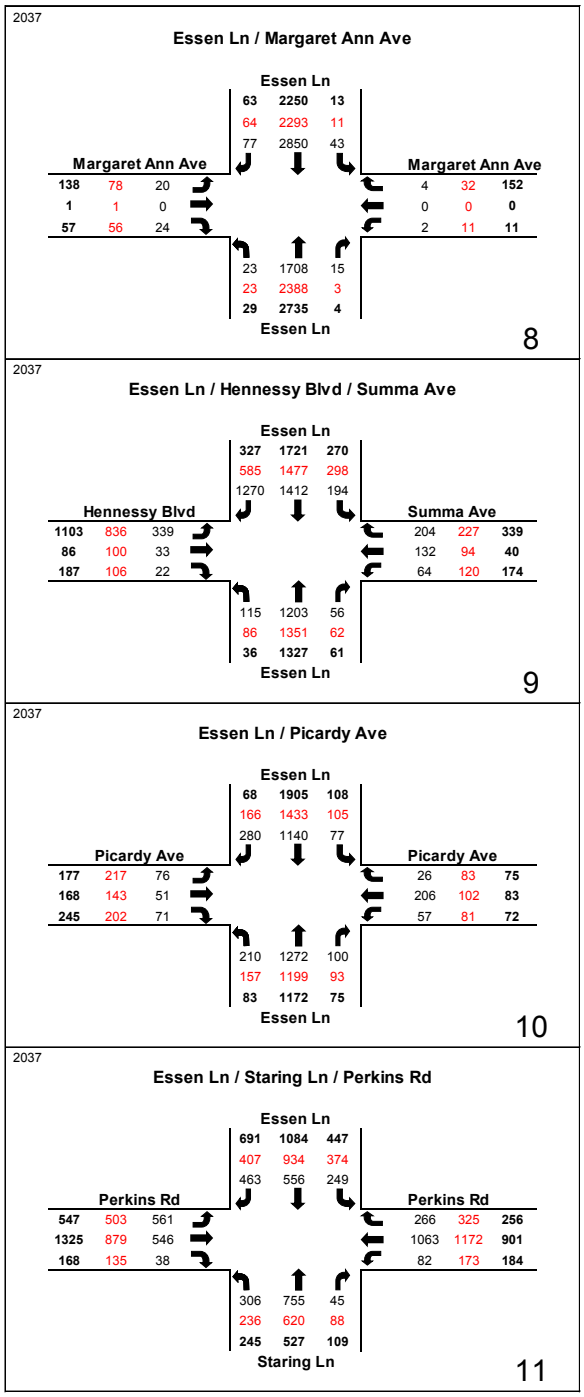


Figure G-12: Bluebonnet Blvd 2017 Background Growth

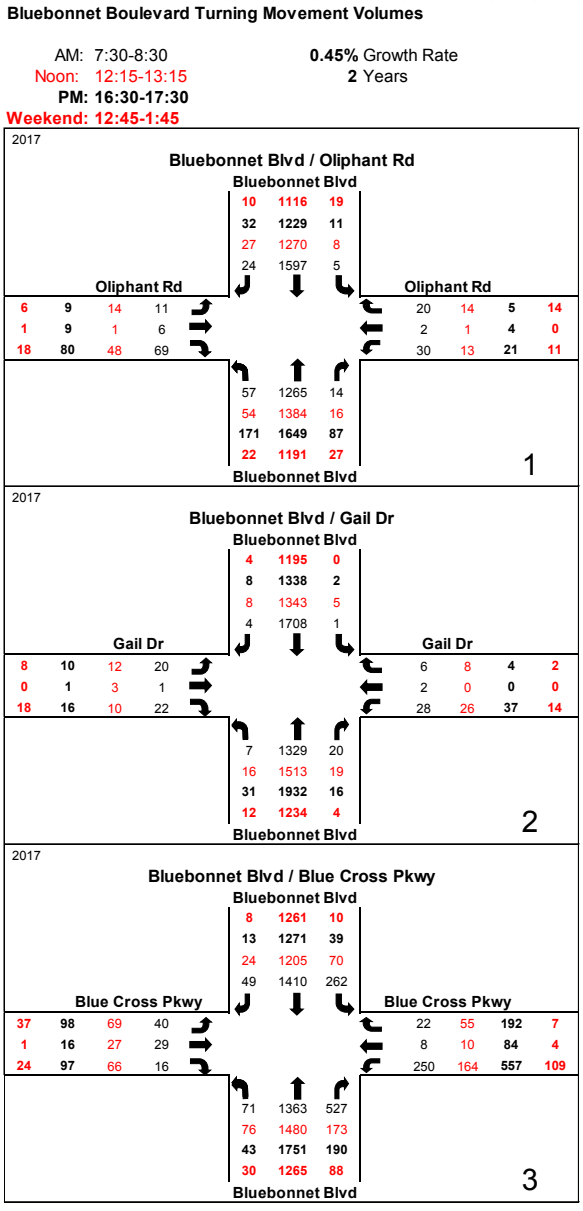


Figure G-13: Bluebonnet Blvd 2017 Background Growth

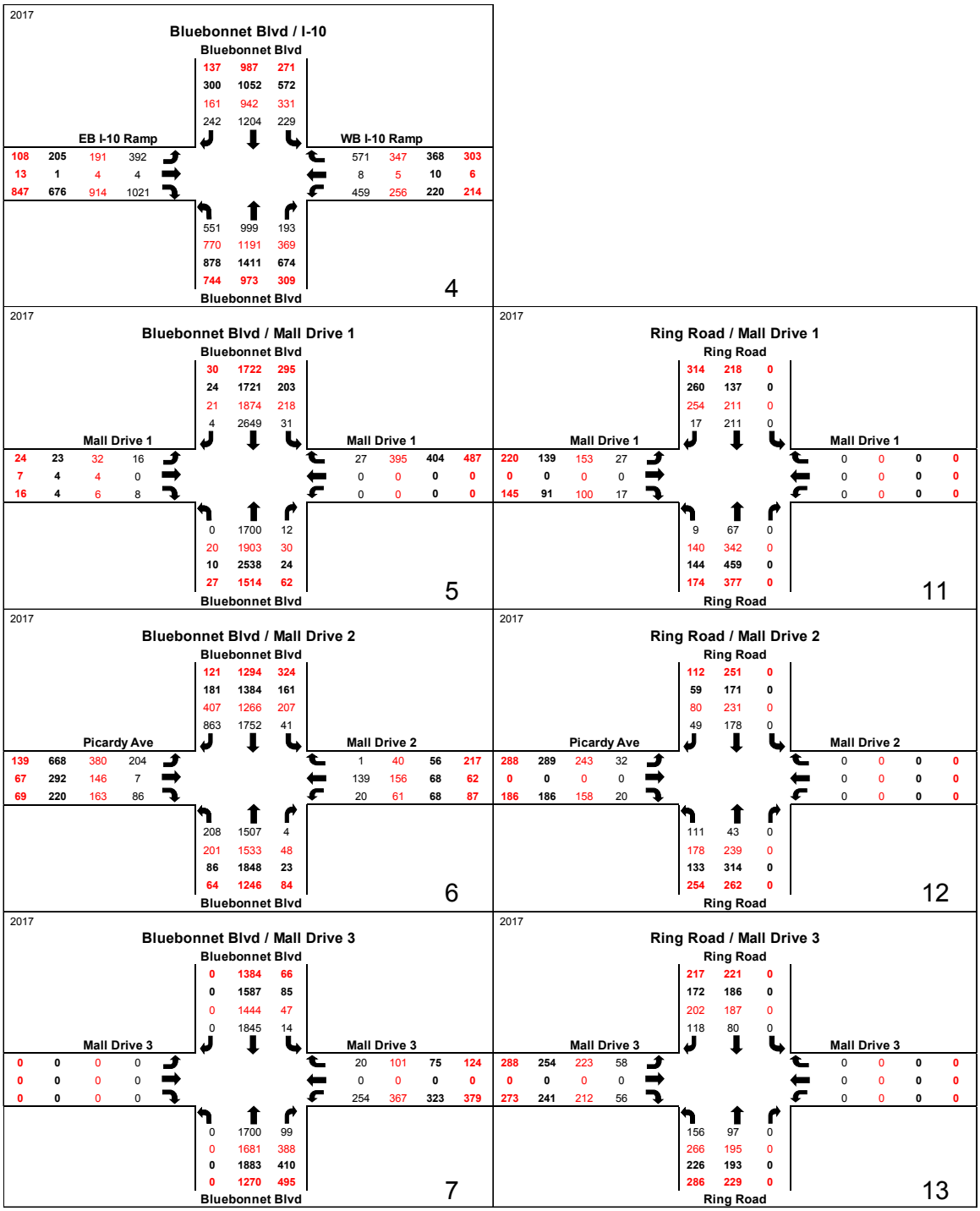


Figure G-14: Bluebonnet Blvd 2017 Background Growth

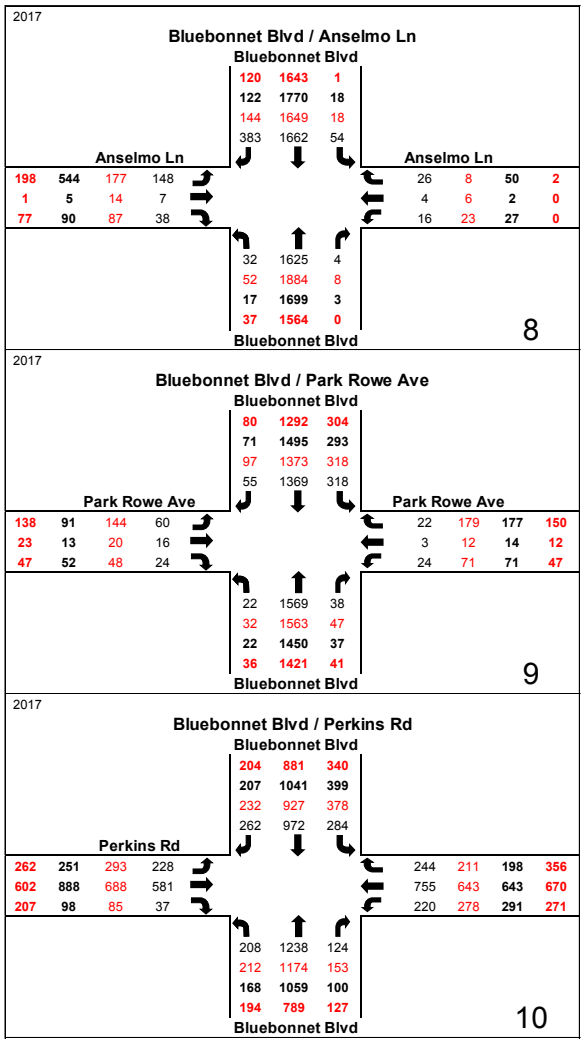


Figure G-15: Bluebonnet Blvd 2037 Background Growth

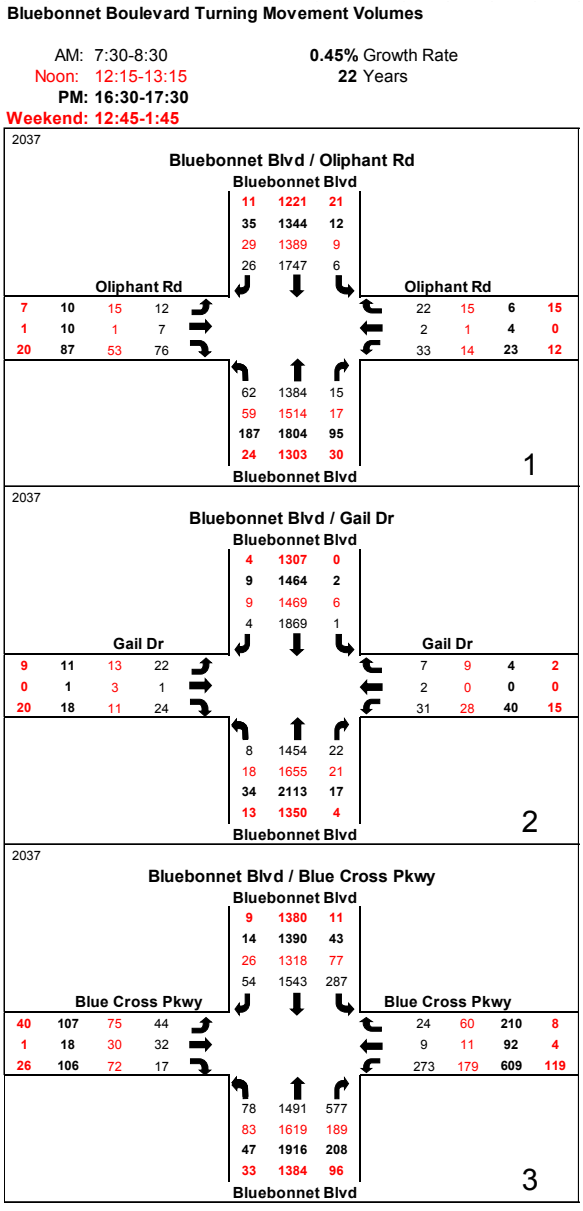


Figure G-16: Bluebonnet Blvd 2037 Background Growth

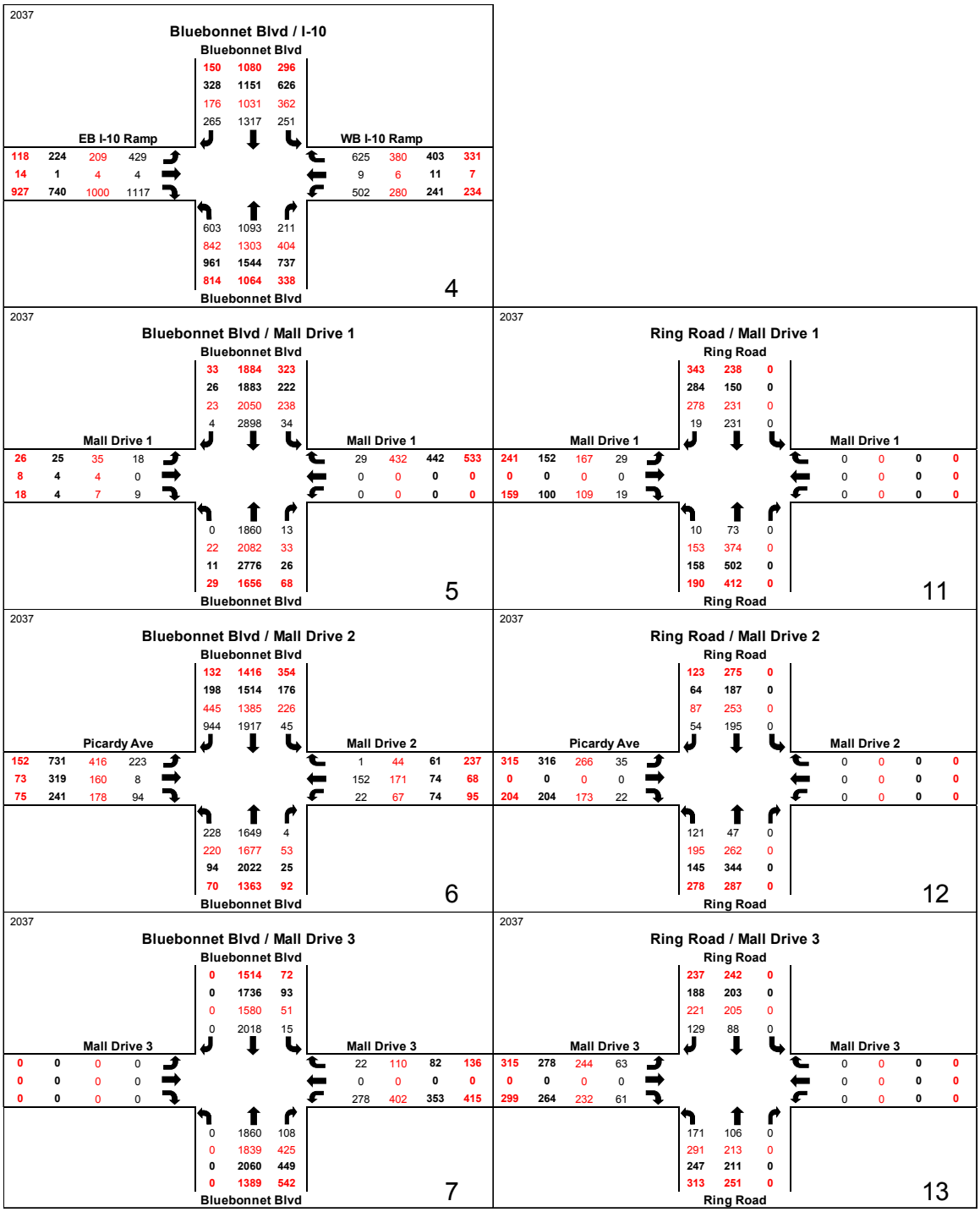
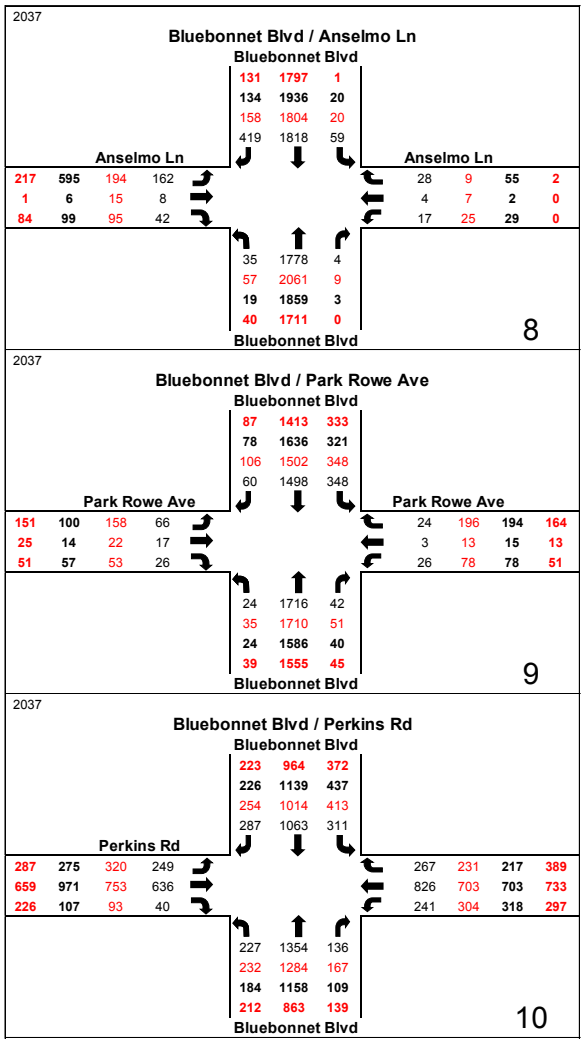


Figure G-17: Bluebonnet Blvd 2037 Background Growth



GROWTH RATE CALCULATION			
ID	Length	VMT	
		2010 Existing	2037 No Build
1219	0.076333	2137.432	2262.909
1220	0.382764	8864.752	8915.822
1221	0.172719	6164.121	7895.139
1222	0.218769	6480.975	7188.344
1223	0.150849	3400.532	4906.171
1224	0.486111	12146.199	12554.514
2117	0.079149	3751.344	5406.904
2118	0.193269	1546.648	1879.343
2119	0.233728	11917.548	16500.018
2120	0.292701	2809.394	3955.987
2121	0.124230	6969.536	8807.779
2124	0.170279	1512.444	1516.338
2125	0.077876	3474.215	3738.144
2126	0.159497	7032.404	7727.223
2127	0.172410	8118.830	8597.594
2430	0.313942	10086.154	10146.281
2494	0.213792	6170.772	6147.722
2546	0.294528	7010.296	6836.521
2547	0.124065	3677.282	3896.155
2588	0.100649	4138.937	5145.381
2653	0.227037	3397.687	2698.130
2655	0.267166	3362.699	3792.171
2660	0.111302	973.818	1106.252
2970	0.143195	5707.143	7179.666
5193	0.059428	2726.062	2865.820
5676	0.185766	7286.390	7687.710
5678	0.137776	6320.000	6644.009
5679	0.080320	13.191	12.406
5680	0.178131	8431.163	10052.340
5681	0.365001	609.113	836.772
5718	0.137648	1316.968	1483.096
5891	0.377843	10346.234	10808.344
6757	0.218727	1571.932	1953.180
6764	0.187934	1276.180	1771.126
6803	0.117210	4375.731	5576.957
6908	0.366958	1699.149	1690.192
8658	0.209369	2667.734	2444.661
8661	0.122662	6776.198	8582.563
8741	0.568391	2105.098	2392.329
8742	0.424758	2185.940	2398.037
8743	0.210426	1243.062	1392.925
8744	0.144975	533.844	606.146
8781	0.142987	3800.911	3755.223
10220	0.112071	3600.553	3622.017
10222	0.056124	44.663	60.225
10223	0.077380	1150.457	1238.710
10376	0.052245	457.109	519.273
	TOTAL	**201388.844**	**227194.571**
	GROWTH RATE	**0.45%**	

Appendix H : TRIP GENERATION – OUR LADY OF THE LAKE CHILDREN'S HOSPITAL

The Institute of Transportation Engineers (ITE) Trip Generation, 9th Edition was used to estimate site-related traffic generation for the Our Lady of the Lake Children's Hospital. The projected numbers of 100 hospital beds and roughly 95,000 square feet of medical office space were used to run the trip generation formula. A summary of the projected generated trips for the site are presented in **Table H-1** below. These trips are used to estimate future build traffic volumes.

Table H-1: Our Lady of the Lake Children's Hospital Trip Generation

A.M. Peak Period

LAND USE	Formula / Avg. Rate	Beds/ KSF	Generated Trips	Entering	Exiting	New Trips		
						Entering	Exiting	Total
ITE: Land Use 610 Hospital	T = 1.32(X)	100	132	72% 95	28% 37	95	37	132
ITE: Land Use 720 Medical-Dental Office Building	T = 2.39(X)	95.08	227	79% 179	21% 48	179	48	227
Totals			**359**			**274**	**85**	**359**

P.M. Peak Period

LAND USE	Formula / Avg. Rate	Beds/ KSF	Generated Trips	Entering	Exiting	New Trips		
						Entering	Exiting	Total
ITE: Land Use 610 Hospital	T = 1.42(X)	100	142	33% 47	67% 95	47	95	142
ITE: Land Use 720 Medical-Dental Office Building	T = 3.57(X)	95.08	339	28% 95	72% 244	95	244	339
Totals			**481**			**142**	**339**	**481**

Weekday

LAND USE	Formula / Avg. Rate	Beds/ KSF	Generated Trips	Entering	Exiting	New Trips		
						Entering	Exiting	Total
ITE: Land Use 610 Hospital	T = 7.33(X) + 2213.85	100	2,947	50%	50%	1473	1473	2947
ITE: Land Use 720 Medical-Dental Office Building	T = 40.89(X) - 214.97	95.08	3,673	50%	50%	1836	1836	3673
Totals			**6,620**			**3310**	**3310**	**6620**

The distributions of trips related to the Children's Hospital development are presented in **Figure H-1 through Figure H-9** for Essen Lane and **Figure H-10 through Figure H-15** for Bluebonnet Boulevard. The No Build analysis assumes two access driveways, one on Essen Lane at Margaret Ann Avenue and one on Summa Avenue near Mancuso Lane. The Dijon Extension Phase 1 analysis assumes that Essen will be accessed from the hospital via Dijon Extension and Summa Avenue while Bluebonnet will be accessed via Picardy Avenue only. The Build analysis assumes that Essen will be accessed from the hospital via Dijon Extension and Summa Avenue while Bluebonnet will be accessed via Dijon Extension and Picardy. The Bluebonnet Boulevard analysis is identical between the No Build and Phase 1 analysis. Therefore, Phase 1 analysis will only be performed along Essen Lane, with the understanding that Bluebonnet Boulevard would perform equally under both scenarios.

Figure H-1: Essen Lane No Build Children's Hospital Trip Distribution

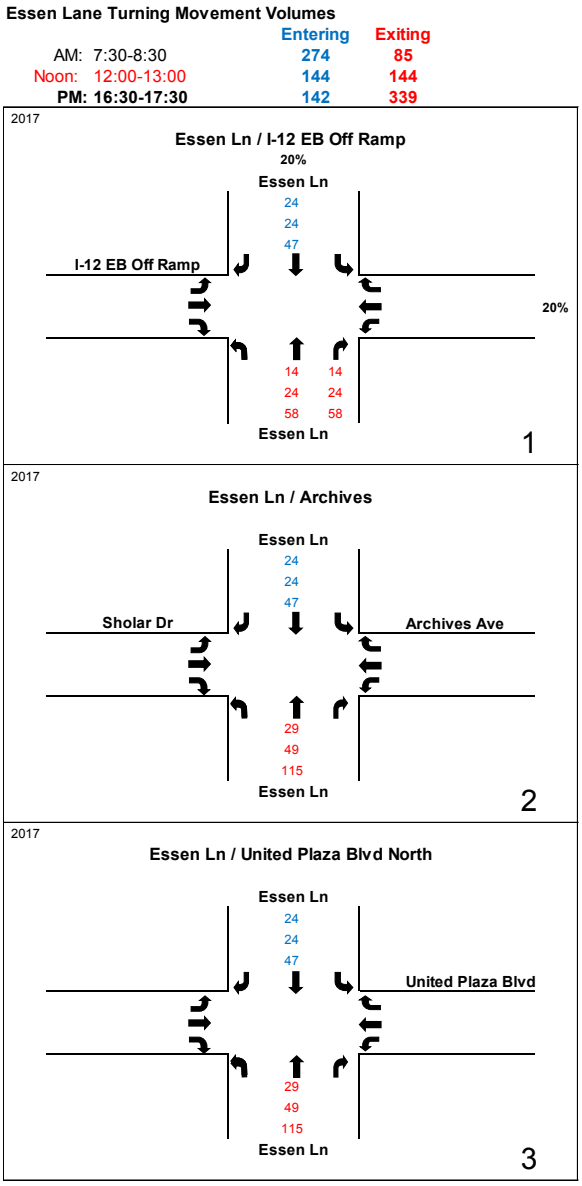


Figure H-2: Essen Lane No Build Children's Hospital Trip Distribution

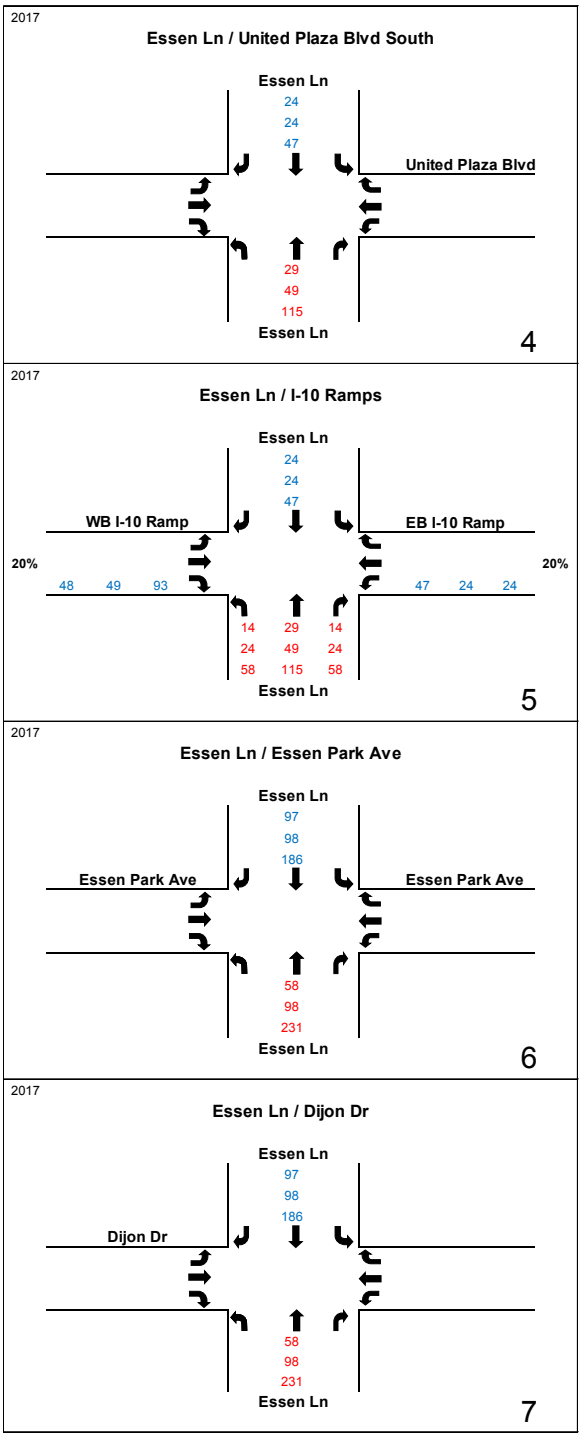


Figure H-3: Essen Lane No Build Children's Hospital Trip Distribution

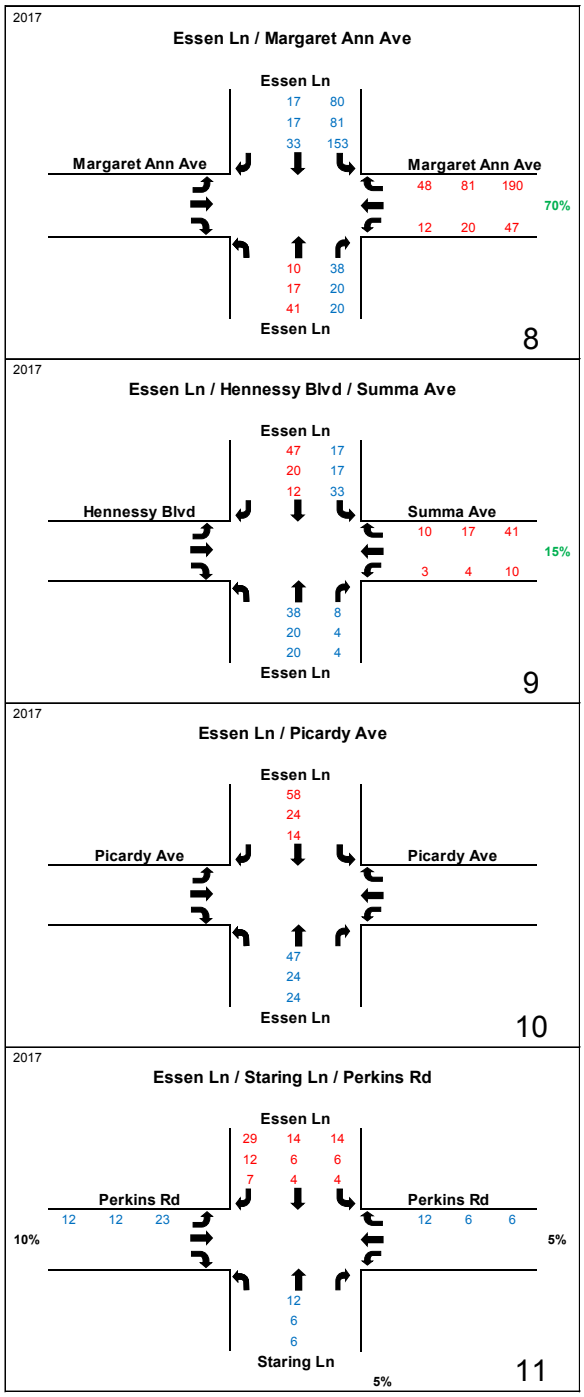


Figure H-4: Essen Lane Phase 1 Children's Hospital Trip Distribution

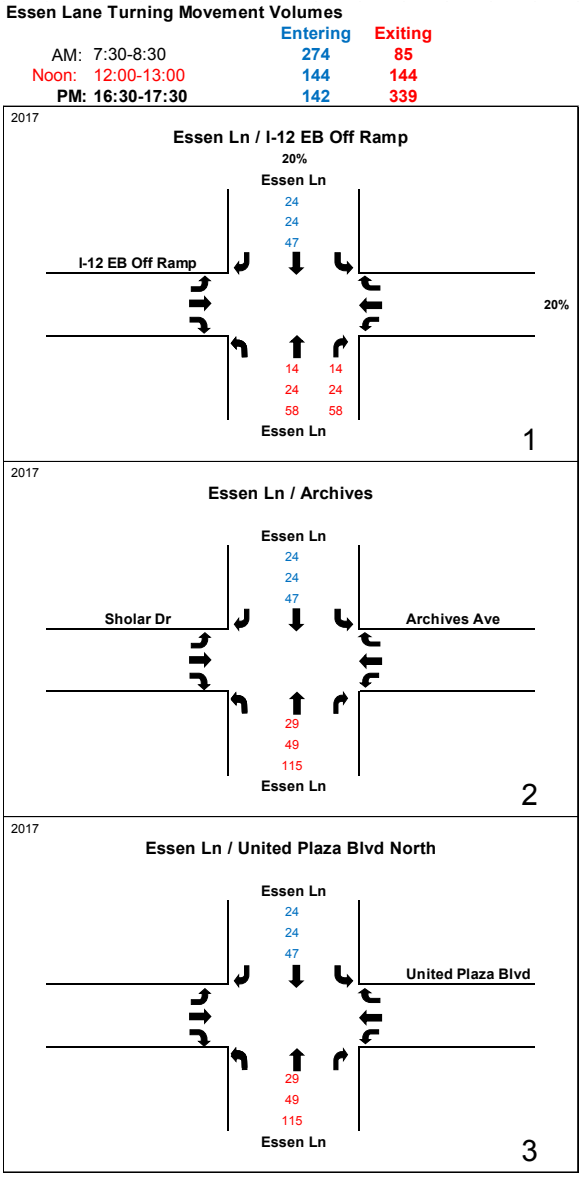


Figure H-5: Essen Lane Phase 1 Children's Hospital Trip Distribution

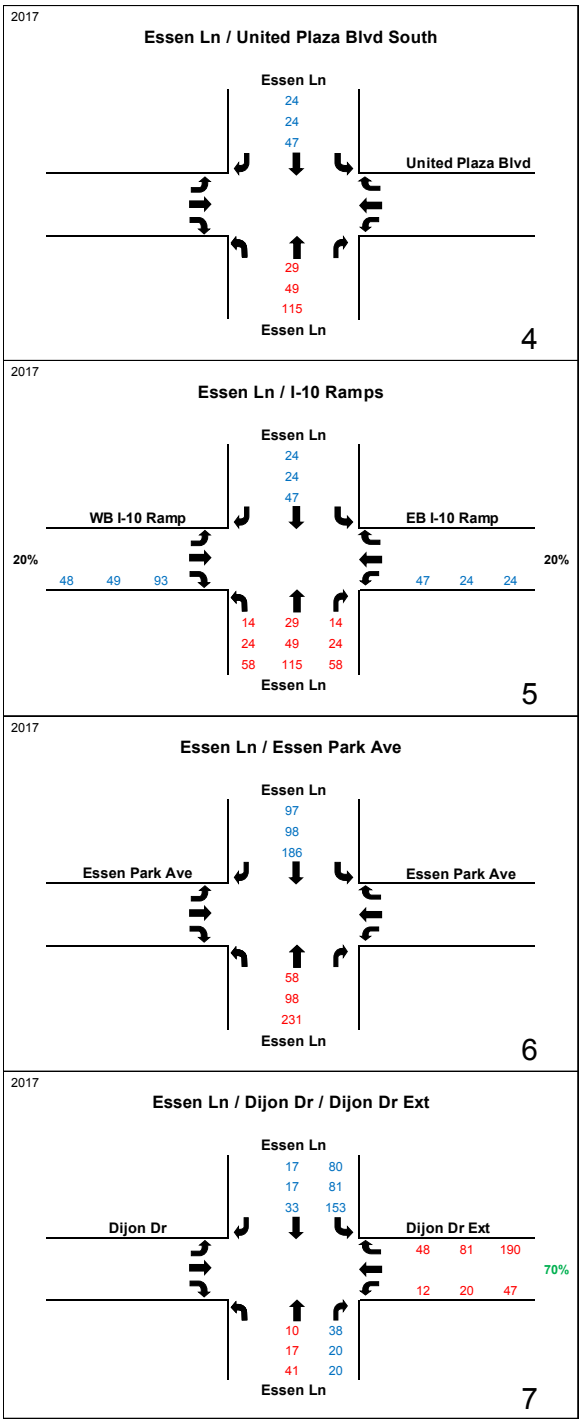


Figure H-6: Essen Lane Phase 1 Children's Hospital Trip Distribution

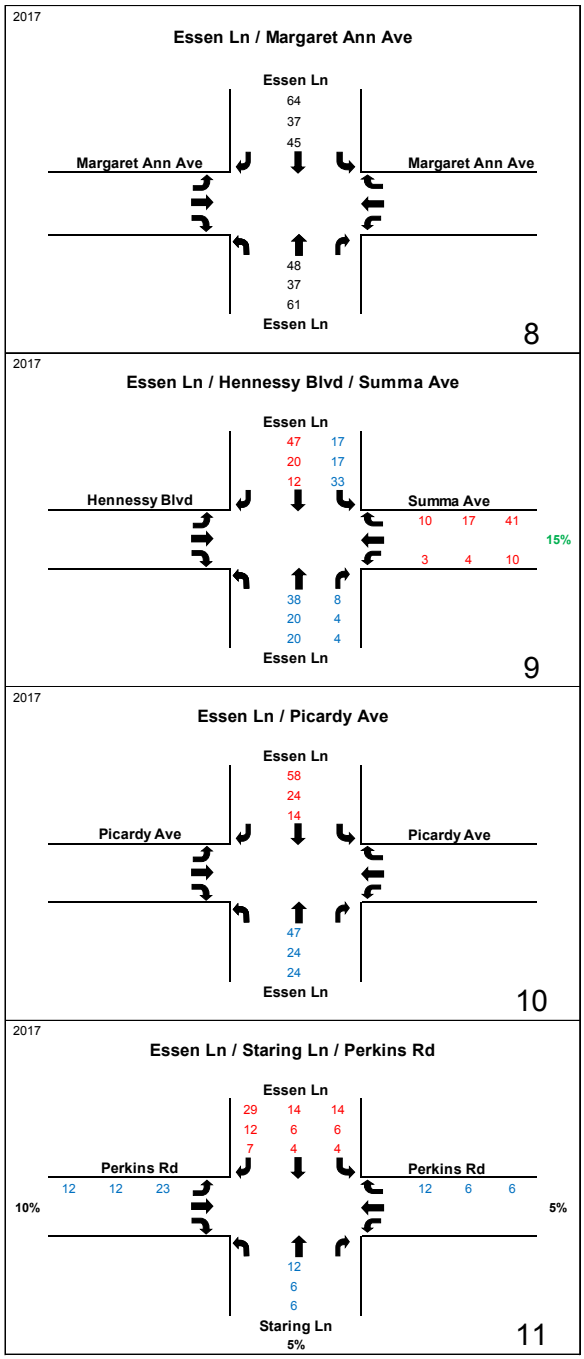


Figure H-7: Essen Lane Build Children's Hospital Trip Distribution

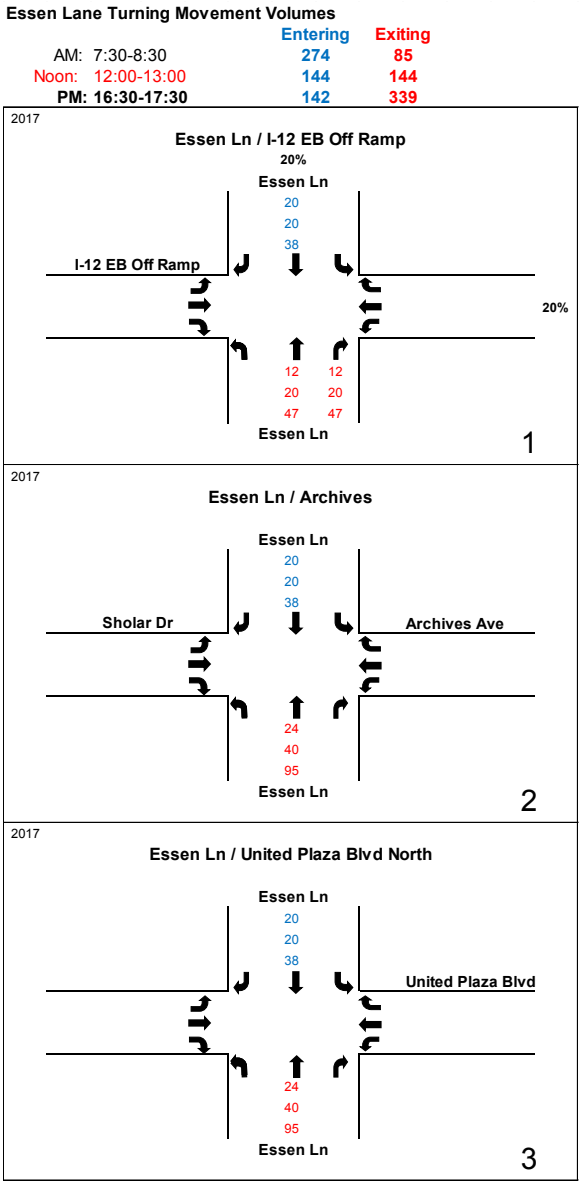


Figure H-8: Essen Lane Build Children's Hospital Trip Distribution

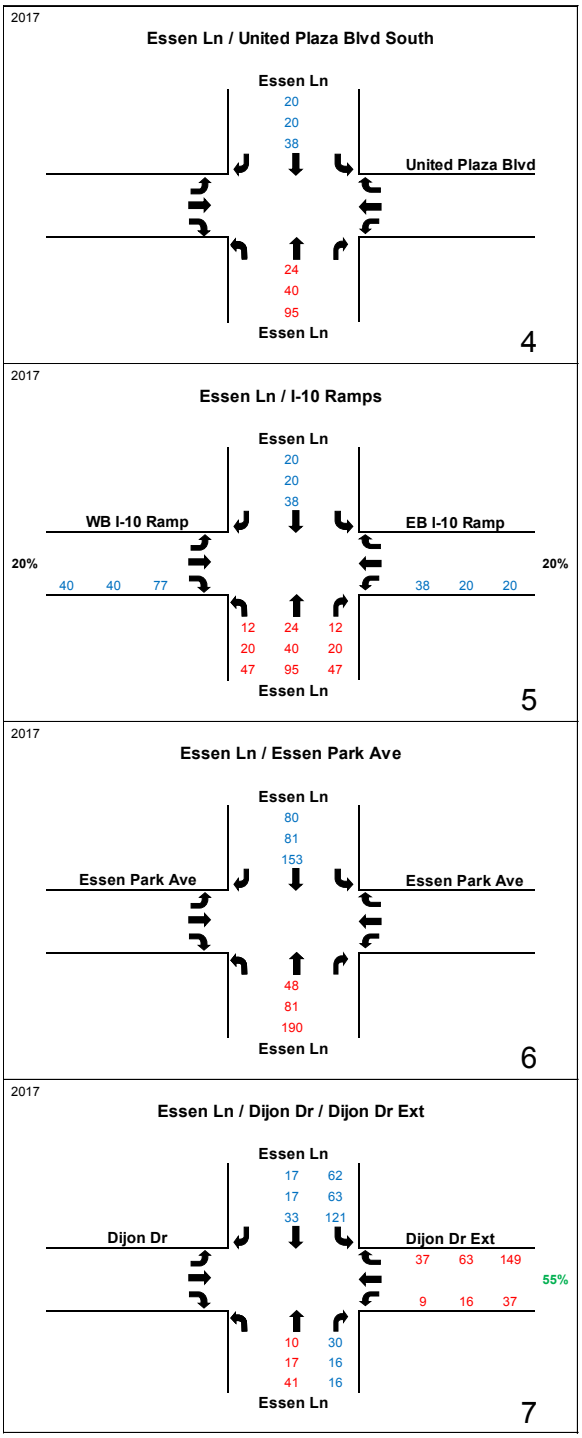


Figure H-9: Essen Lane Build Children's Hospital Trip Distribution

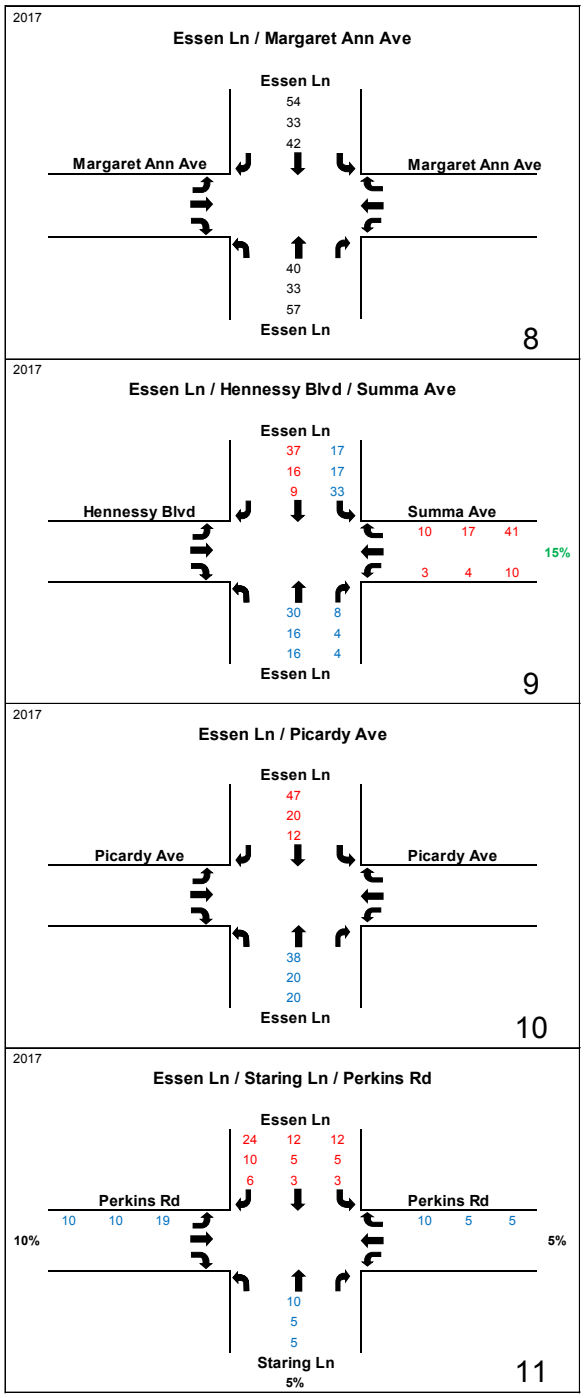


Figure H-10: Bluebonnet Blvd No Build Children's Hospital Trip Distribution

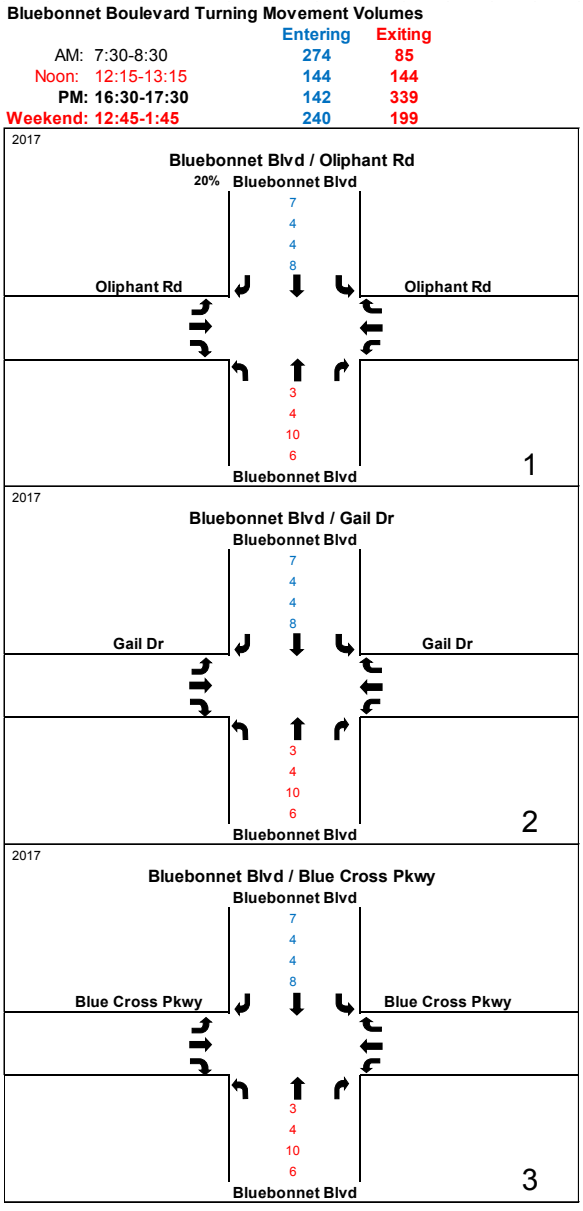


Figure H-11: Bluebonnet Blvd No Build Children's Hospital Trip Distribution

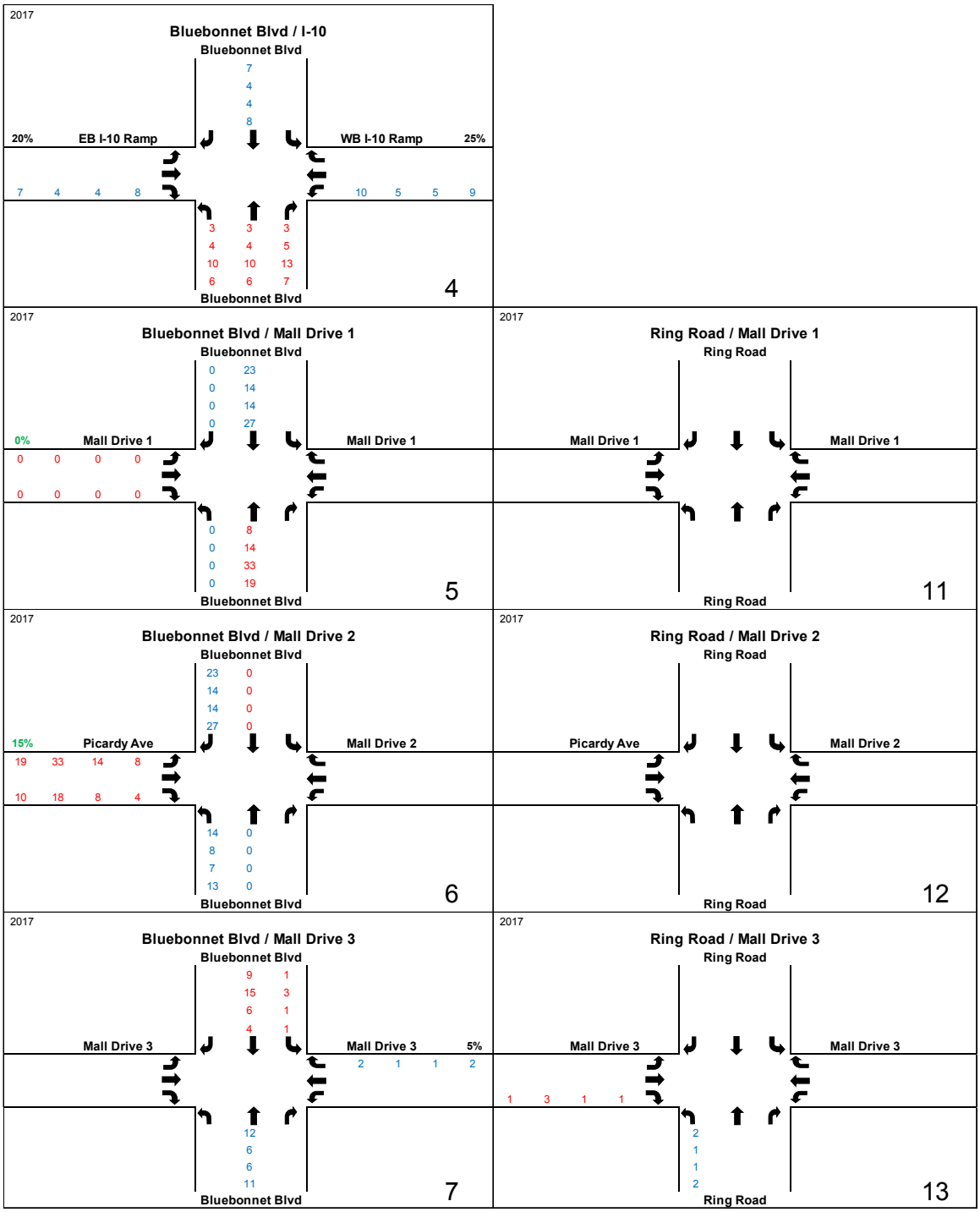


Figure H-12: Bluebonnet Blvd No Build Children's Hospital Trip Distribution

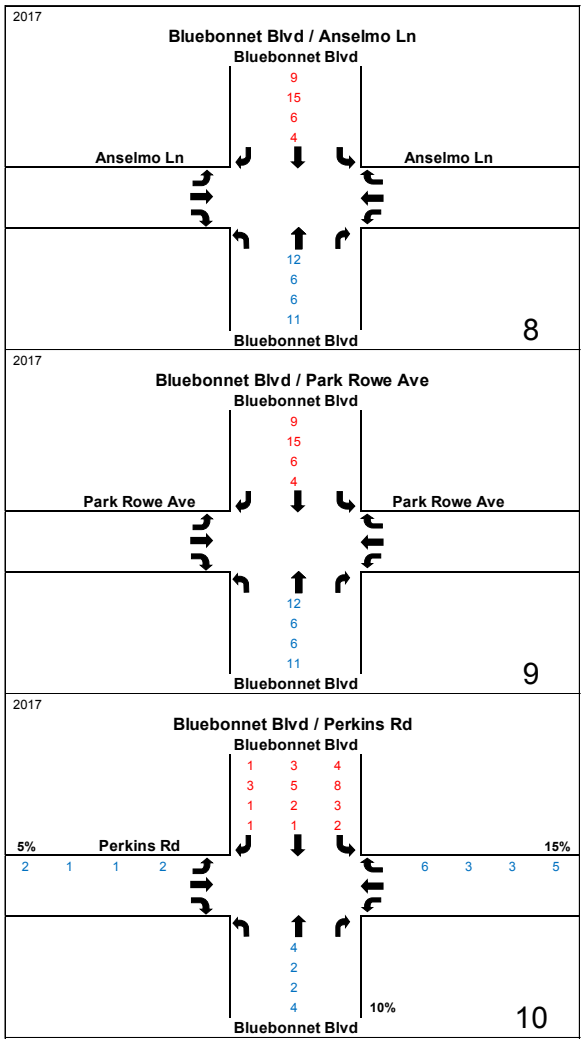


Figure H-13: Bluebonnet Blvd Build Children's Hospital Trip Distribution

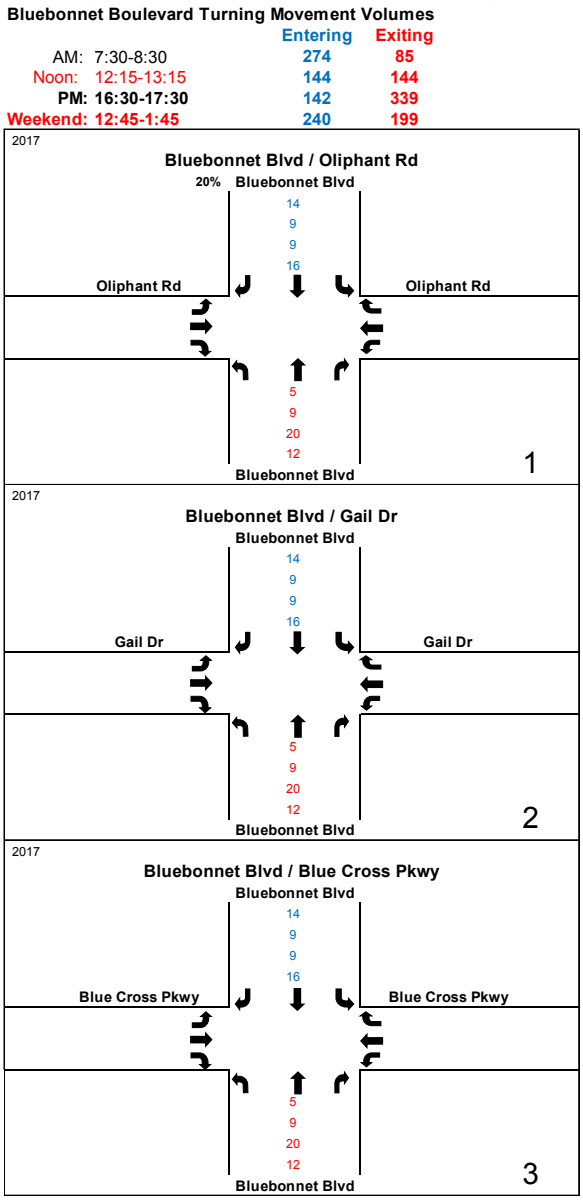


Figure H-14: Bluebonnet Blvd Build Children's Hospital Trip Distribution

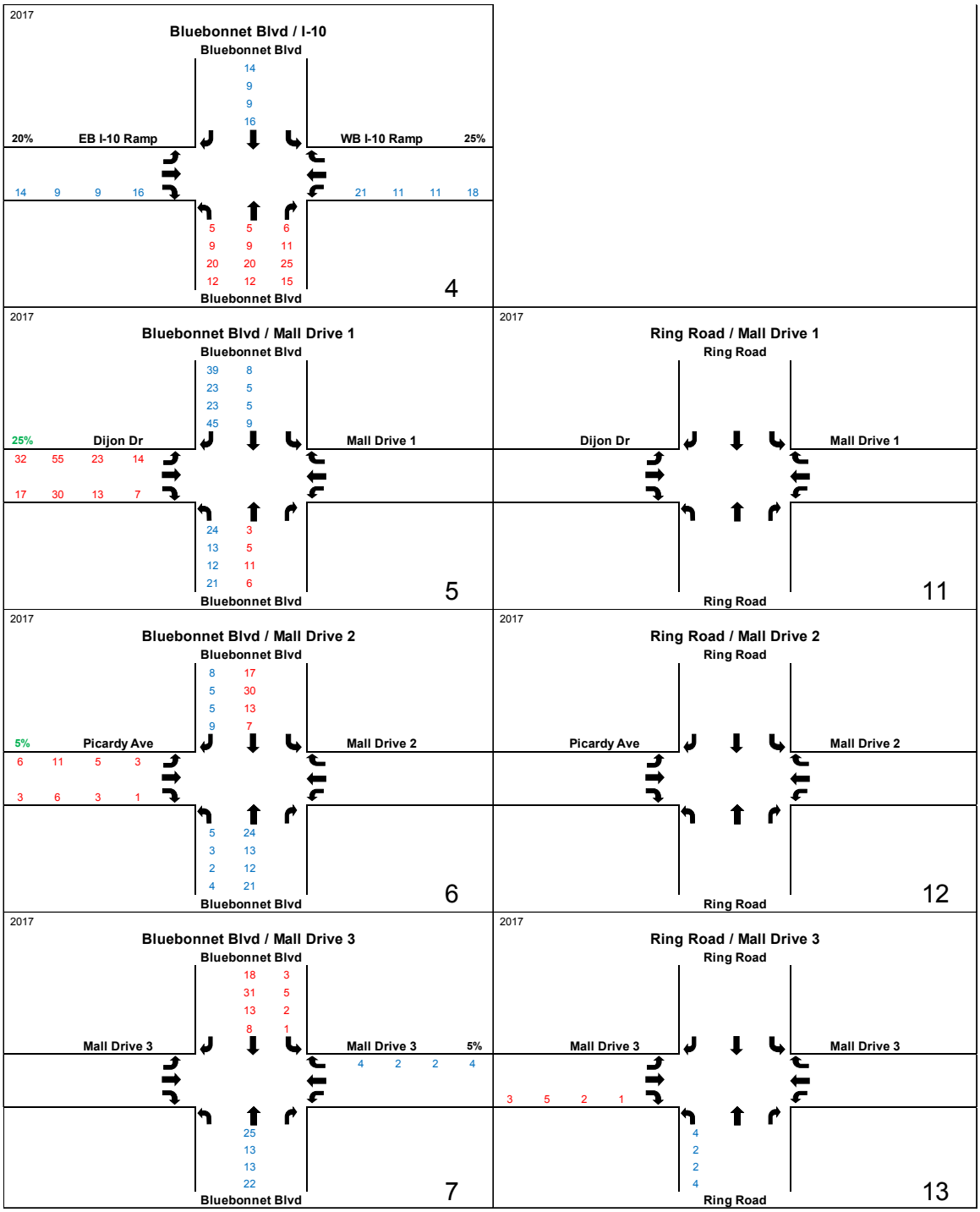
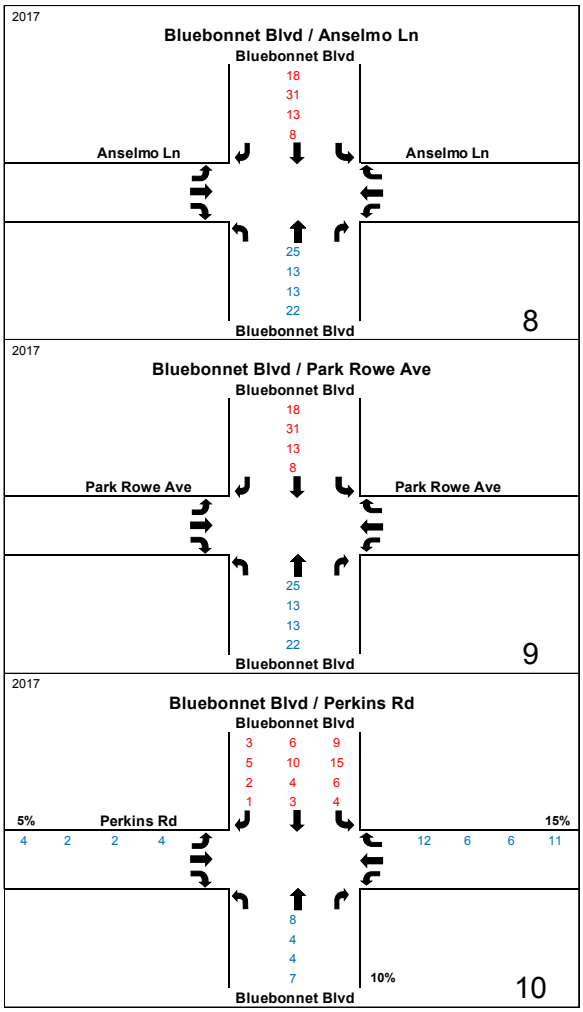


Figure H-15: Bluebonnet Blvd Build Children's Hospital Trip Distribution



Appendix I : TRIP REDISTRIBUTION – ESSEN LANE WIDENING

While vehicles were once allowed to turn left from Dijon Drive eastbound to Essen Lane northbound, the current Essen Lane widening project construction and final design restricts that movement. Due to this restriction, many exiting vehicles have been observed to turn onto Margaret Ann Avenue and make a U-Turn to proceed northbound along Essen Lane. This rerouting has been assumed in all future year models and the redistributed trips associated with these travel pattern changes are presented in **Figure I-1 and Figure I-2**.

Figure I-1: Essen Lane – 2017 Background Traffic Redistribution due to Essen Lane Widening

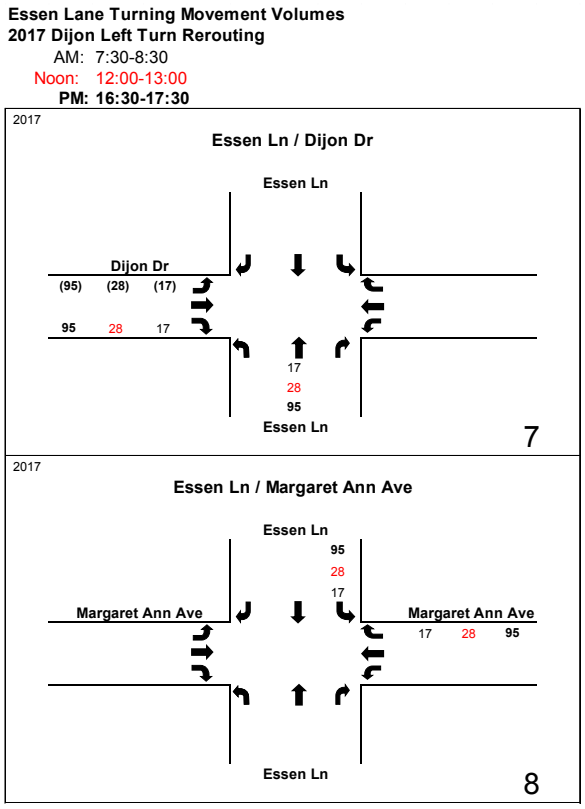
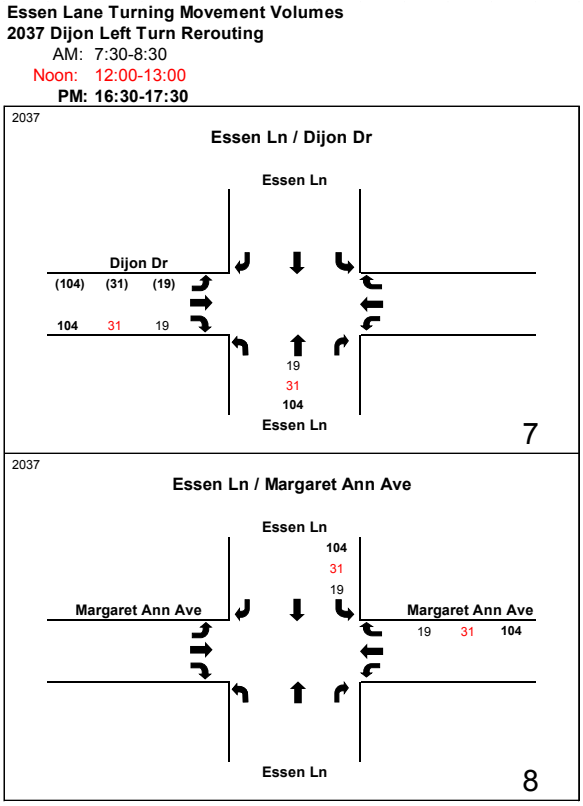


Figure I-2: Essen Lane – 2037 Background Traffic Redistribution due to Essen Lane Widening



Appendix J : TRIP REDISTRIBUTION – PICARDY-PERKINS CONNECTOR

The peak hour redistribution caused by the addition of the Picardy-Perkins Connector was taken from the Stage 0 Study results presented in the Traffic Projections Report. The Stage 0 study included projected traffic volumes for the year 2032 along Bluebonnet Boulevard at I-10, Mall Drive 3, and Perkins Road. These volumes were grown to the year 2037 using the 0.45% annual growth rate discussed in **Appendix G**. The remaining intersections have been filled in using data from the grown counts presented in **Figure G-12 through Figure G-17**.

LADOTD assisted by providing additional suggestions for the redistribution of traffic, as shown at the end of **Appendix J**. These adjustments affected the 2037 AM and PM peak hour volumes. The background trips along Bluebonnet Boulevard with the Picardy-Perkins Connector project adjustments in place are presented in **Figure J-1 through Figure J-6**.

Figure J-1: Bluebonnet Blvd – 2017 Background Traffic with Picardy-Perkins Connector Redistribution

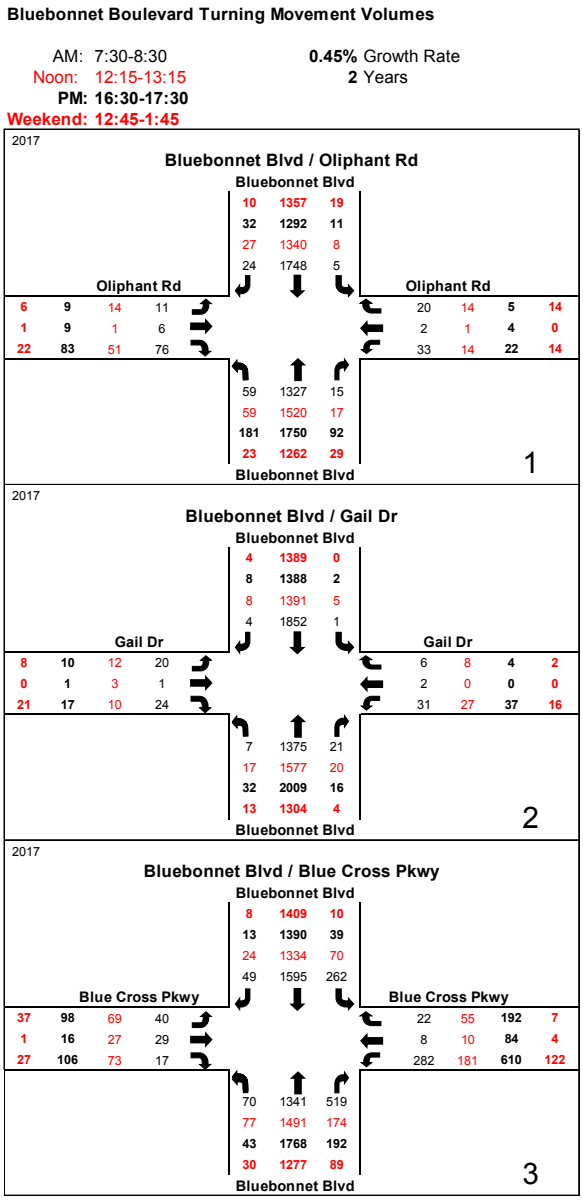


Figure J-2: Bluebonnet Blvd – 2017 Background Traffic with Picardy-Perkins Connector Redistribution

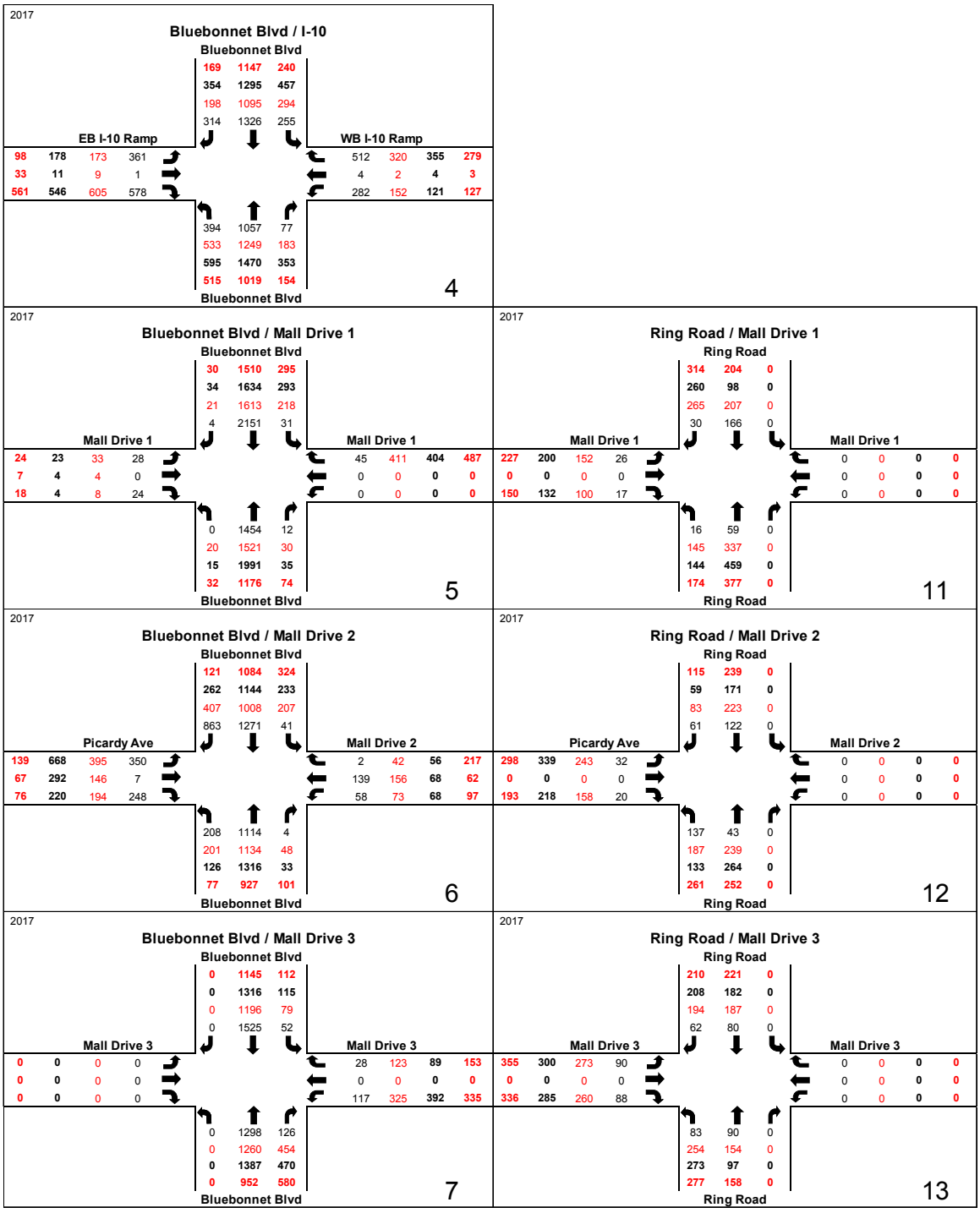


Figure J-3: Bluebonnet Blvd – 2017 Background Traffic with Picardy-Perkins Connector Redistribution

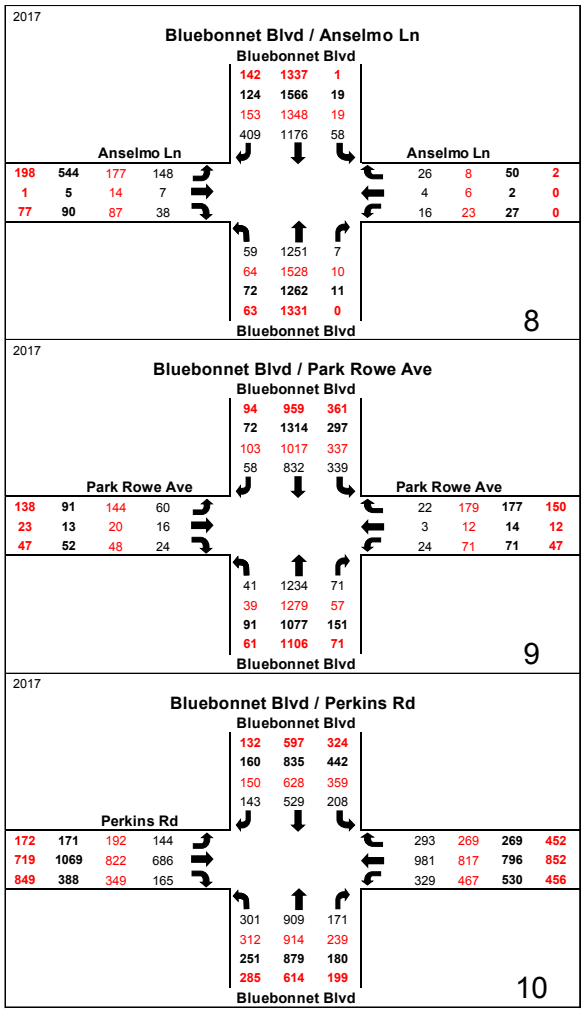


Figure J-4: Bluebonnet Blvd – 2037 Background Traffic with Picardy-Perkins Connector Redistribution

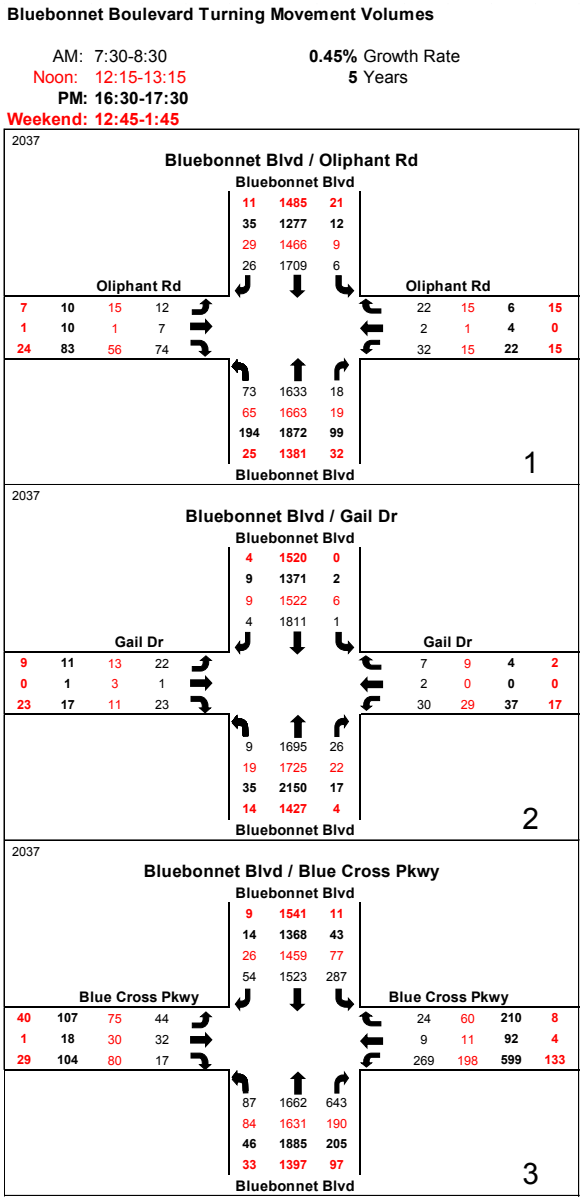


Figure J-5: Bluebonnet Blvd – 2037 Background Traffic with Picardy-Perkins Connector Redistribution

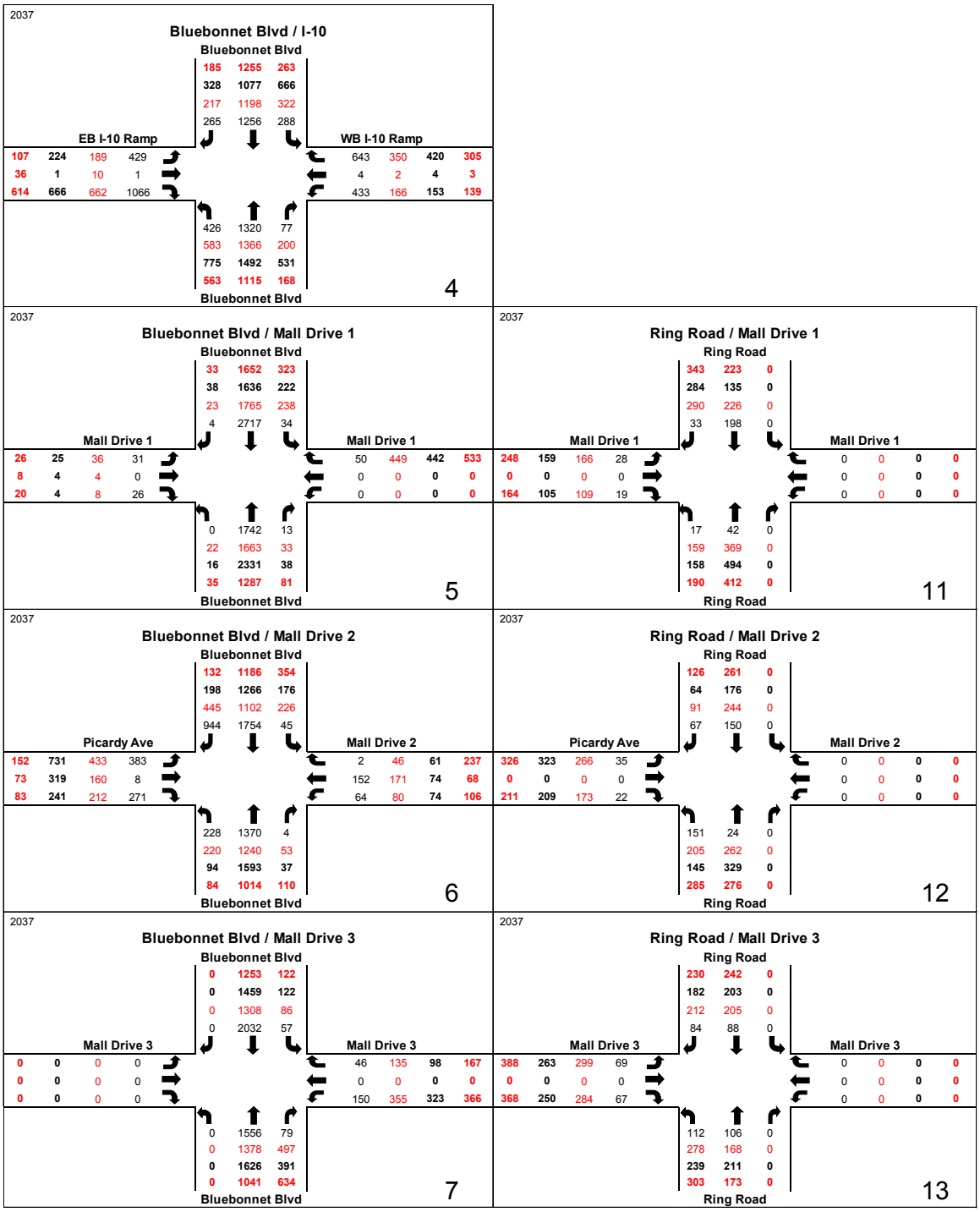
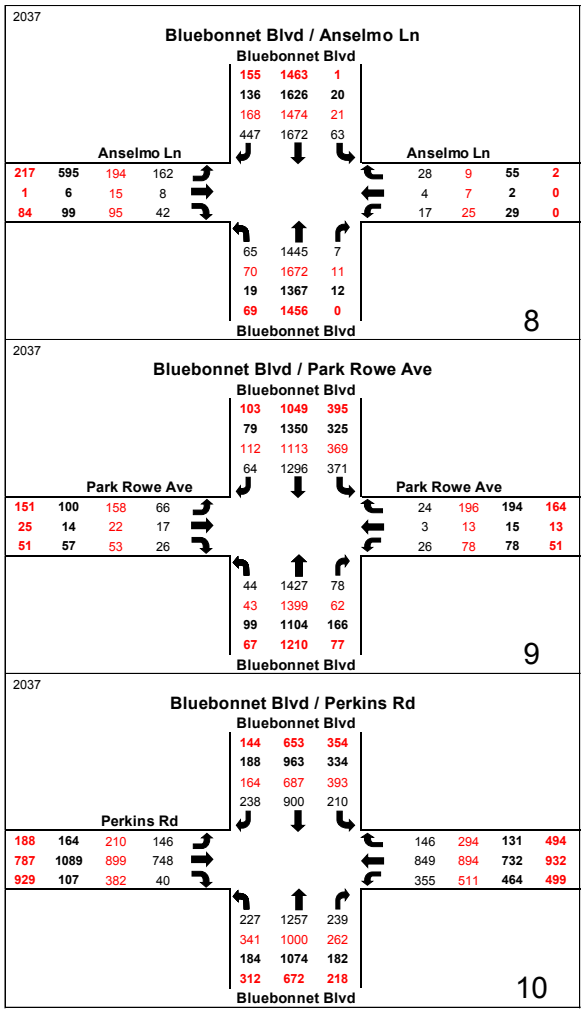


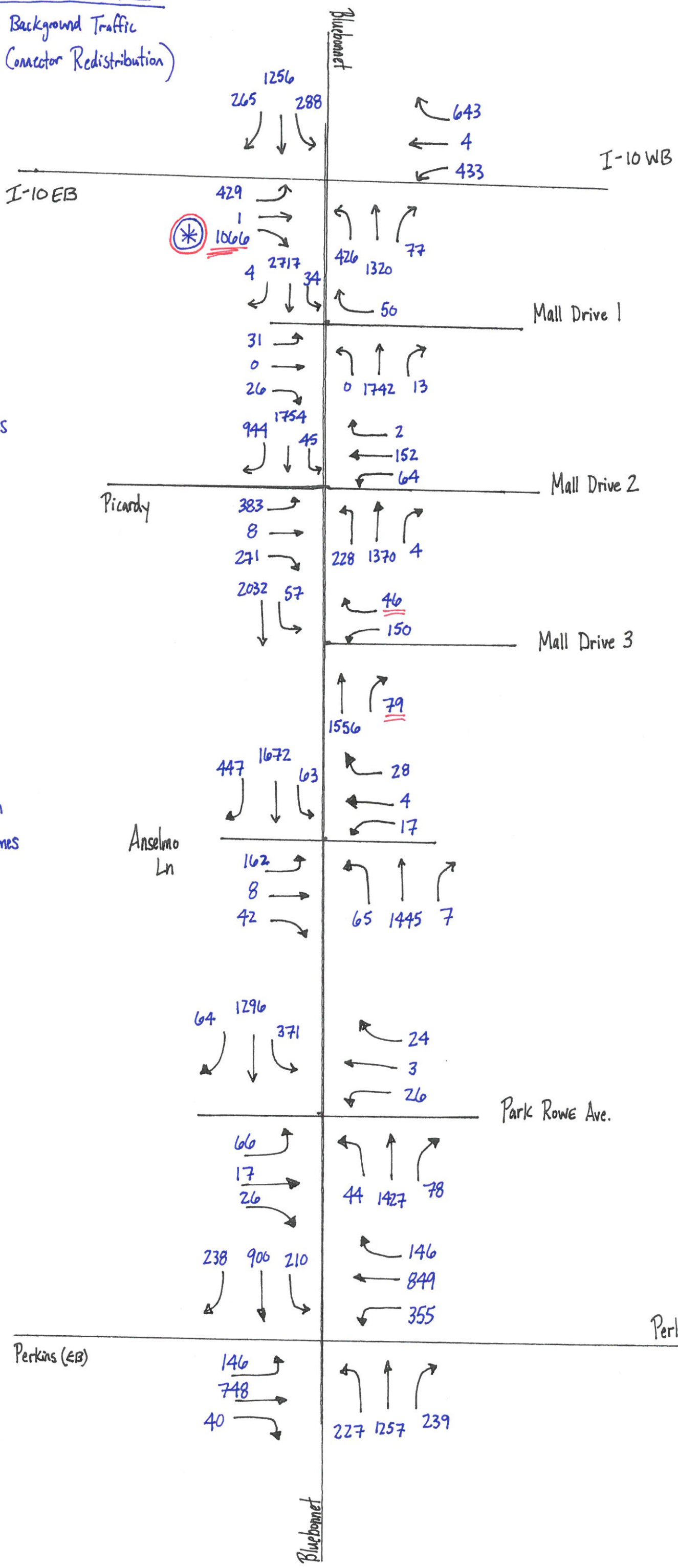
Figure J-6: Bluebonnet Blvd – 2037 Background Traffic with Picardy-Perkins Connector Redistribution



Volumes to be changed in Stantec's Report

(Bluebonnet Blvd. - 2037 Background Traffic with Picardy - Perkins Connector Redistribution)

AM



SB *

+364 more vehicles than shown in consultant volumes

NB

+152 more vehicles than shown in consultant volumes

SB *

+376 more vehicles than shown in consultant volumes

NB

+77 more vehicles than shown in consultant volumes

Volumes to be changed in Stantec's Report

* Bluebonnet Blvd - 2037 Background Traffic with Picardy - Perkins Connector Redistributions

PM

N

↓ +15 more vehicles than shown in consultant volumes

↑ +153 more vehicles than shown in consultant volumes

↓ -87 less vehicles than shown in consultant volumes

↑ -74 less vehicles than shown in consultant volumes

↓ + 50 more vehicles than shown in consultant volumes

Appendix K : TRIP REDISTRIBUTION - DIJON DRIVE EXTENSION

The results of the Travel Demand Models presented in **Figure G-2 and Figure G-3** were used to determine the peak hour redistribution caused by the addition of the Dijon Drive Extension. The redistribution described here does not concern additional trips generated by development along the proposed Dijon Extension. The new generated trips are discussed in **Appendix H**. Additionally, the new trips along Midway between Picardy Avenue and Summa Avenue were taken from the results presented in **Figure G-4**. **Figure G-4** projects that Midway will carry a volume of only 1,100 ADT on the segment between Picardy Avenue and Summa Avenue. Since this number includes the connection to Perkins Road—a segment which is not included in the Dijon Extension proposal—it can be considered a conservative estimate for the usage of the new roadway.

In addition to the 24-hour results presented in **Figure G-1 through Figure G-4**, the Travel Demand Model included results for each peak period. In order to estimate peak hourly volumes, a factor was applied to the peak period volumes to achieve the correct K factor relative to the 24-hour volumes. LADOTD traffic counts along Essen Lane collected in 2013 indicated a K factor of 7.5% for both AM and PM peak hours. The 2013 LADOTD counts are included at the end of **Appendix K**.

The below calculations used a goal of an 8% K factor, which provides a conservative estimate of redistribution onto the Dijon Extension. In order to achieve the K factor of 8%, the AM peak period volumes were multiplied by a factor of 0.34 and the PM peak period volumes were multiplied by a factor of 0.29.

Table K-1: Proportion of Peak Period Volumes Occurring During the Peak Hour

		2037 TransCAD Results		
		24-Hour	AM Peak Period	PM Peak Period
Dijon East of Mancuso	EB	3179	510	1030
	WB	3361	1031	770
	TOTAL	6541	1541	1800
Peak Hour Bi-Directional ADT (using 8% K Factor)			523	523
Proportion of Peak Period Volumes During Peak Hour			0.34	0.29

Maps showing the peak hour adjusted redistributed trips are presented in **Figure K-1 through Figure K-4** on the following pages. Additional figures detailing the process of deriving the number of peak hour redistributed trips from the TransCAD model runs are presented at the end of **Appendix K.**

Figure K-1: Dijon Extension Phase 1 Trip Redistribution, 2037 AM Peak Hour

Figure K-2: Dijon Extension Phase 1 Trip Redistribution, 2037 PM Peak Hour

Figure K-3: Dijon Extension Build Trip Redistribution, 2037 AM Peak Hour

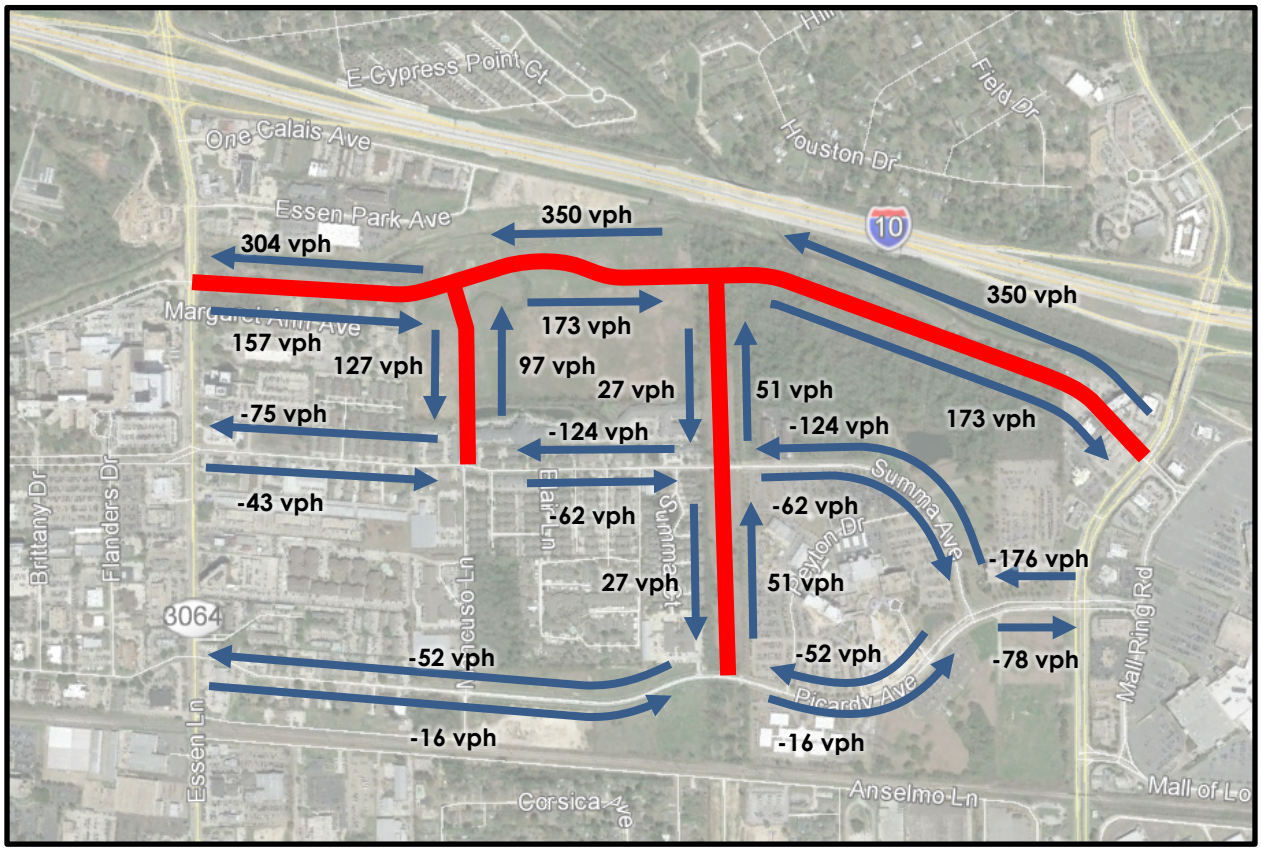
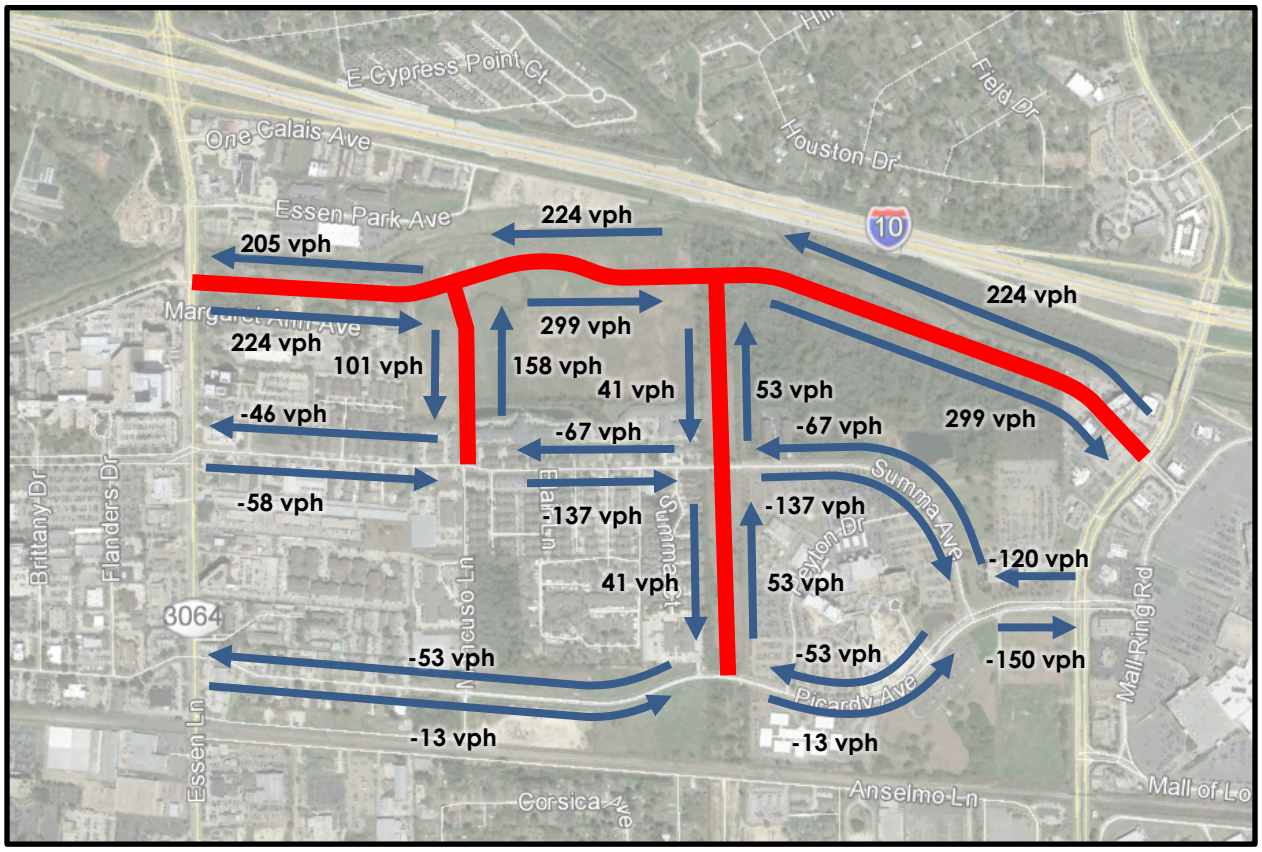


Figure K-4: Dijon Extension Build Trip Redistribution, 2037 PM Peak Hour



The redistributed trips associated with the Dijon Drive Extension project are further detailed in **Figure K-5 through Figure K-13** for Essen Lane and **Figure K-14 through Figure K-19** for Bluebonnet Boulevard.

Figure K-5: Essen Lane 2017 Dijon Drive Extension Phase 1 Diverted Trips

Essen Lane Turning Movement Volumes

AM: 7:30-8:30
Noon: 12:00-13:00
PM: 16:30-17:30

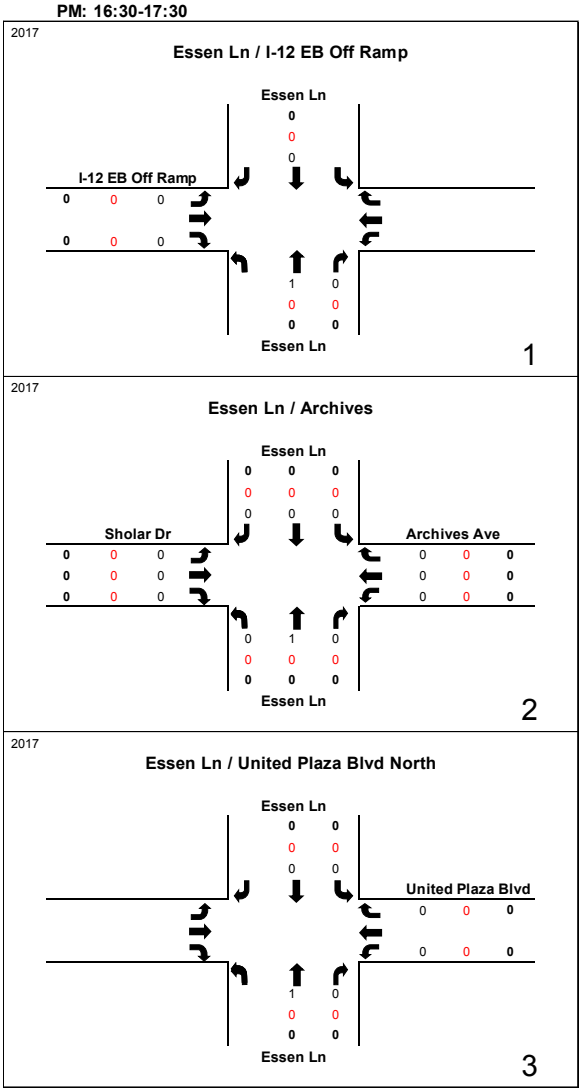


Figure K-6: Essen Lane 2017 Dijon Drive Extension Phase 1 Diverted Trips

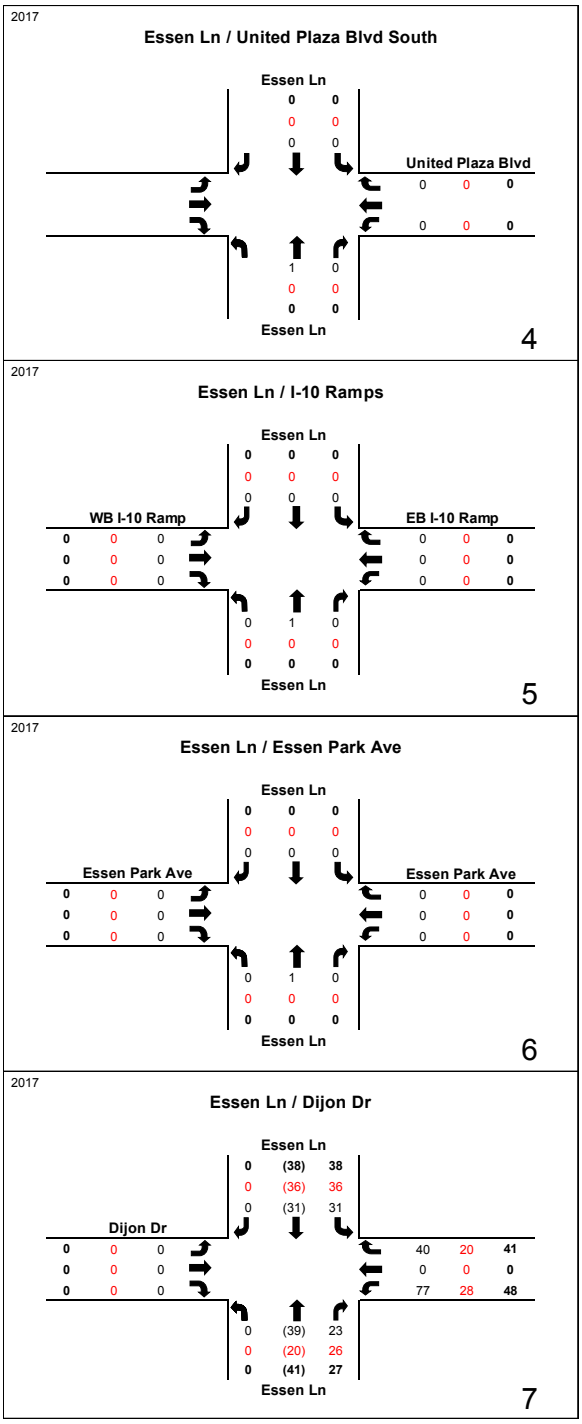


Figure K-7: Essen Lane 2017 Dijon Drive Extension Phase 1 Diverted Trips

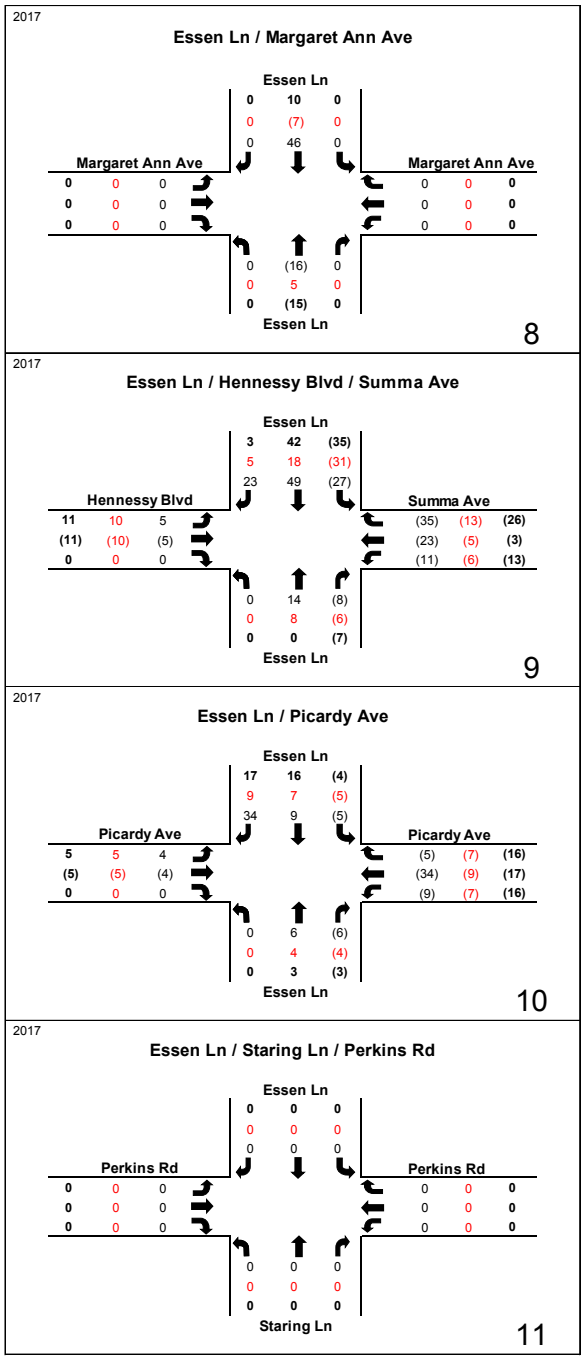


Figure K-8: Essen Lane 2017 Dijon Drive Extension Full Build Diverted Trips

Essen Lane Turning Movement Volumes

AM: 7:30-8:30
Noon: 12:00-13:00
PM: 16:30-17:30

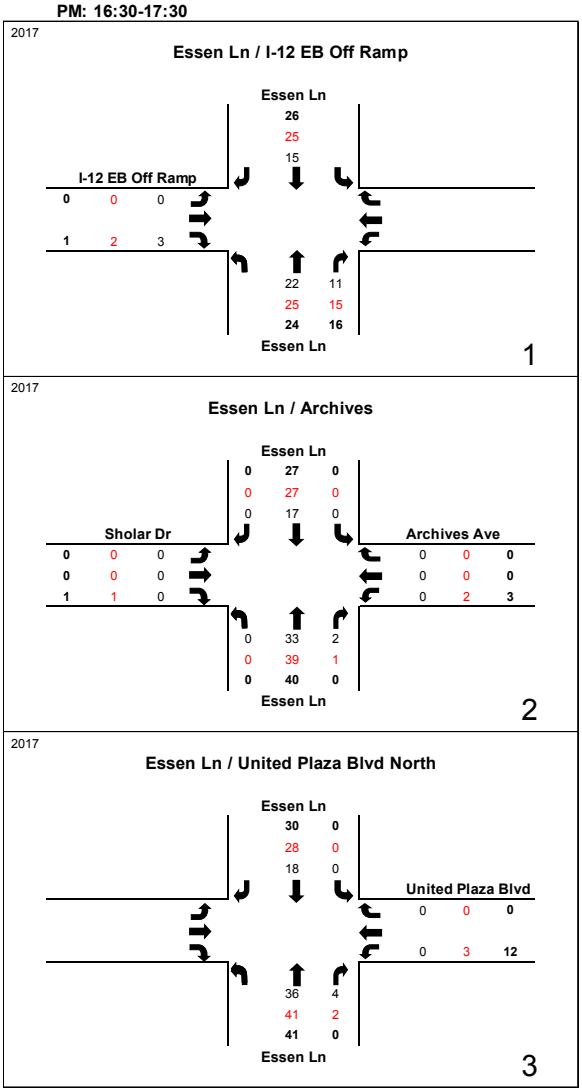


Figure K-9: Essen Lane 2017 Dijon Drive Extension Full Build Diverted Trips

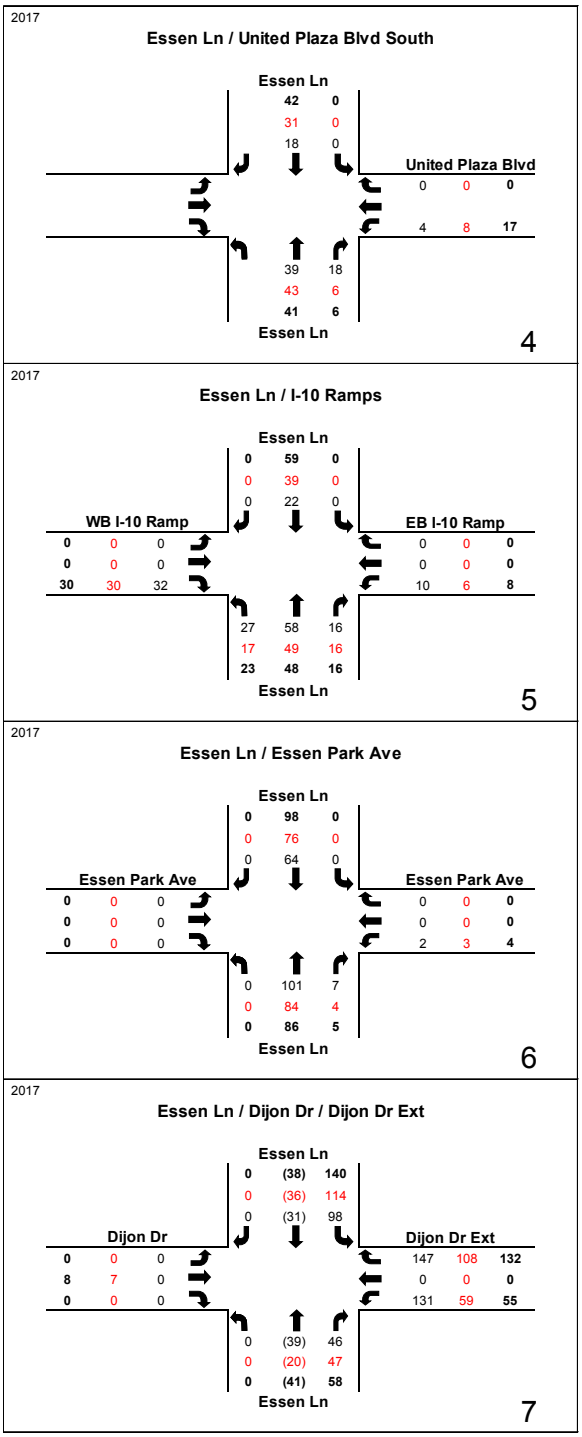


Figure K-10: Essen Lane 2017 Dijon Drive Extension Full Build Diverted Trips

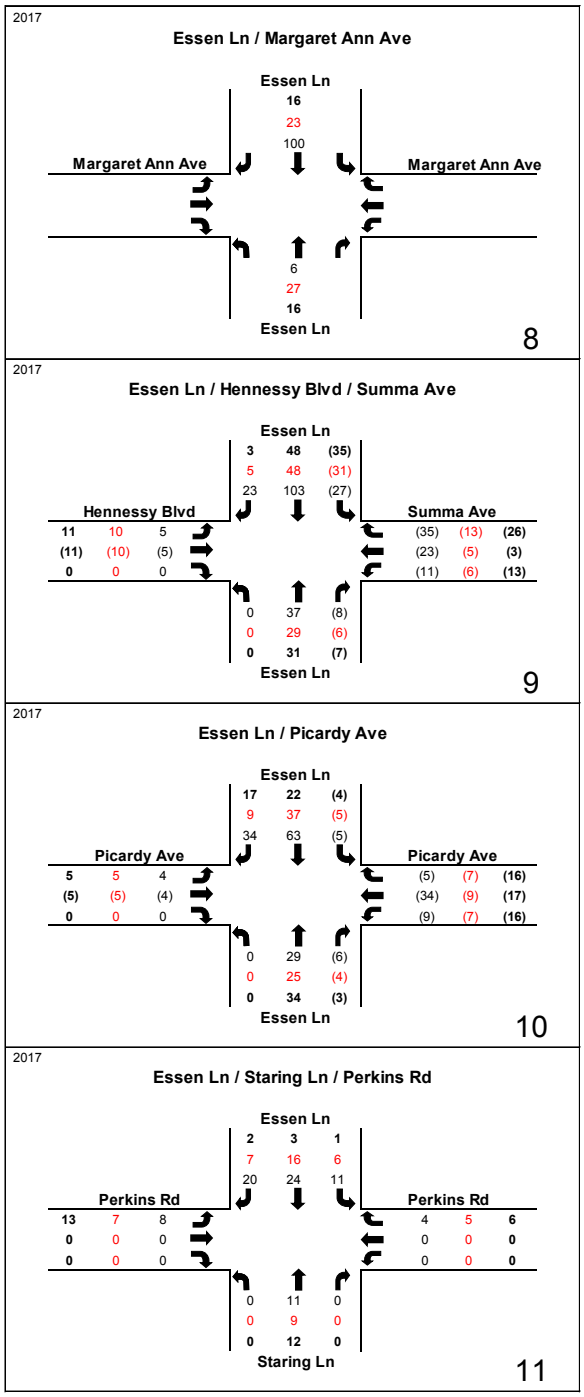


Figure K-11: Essen Lane 2037 Dijon Drive Extension Full Build Diverted Trips

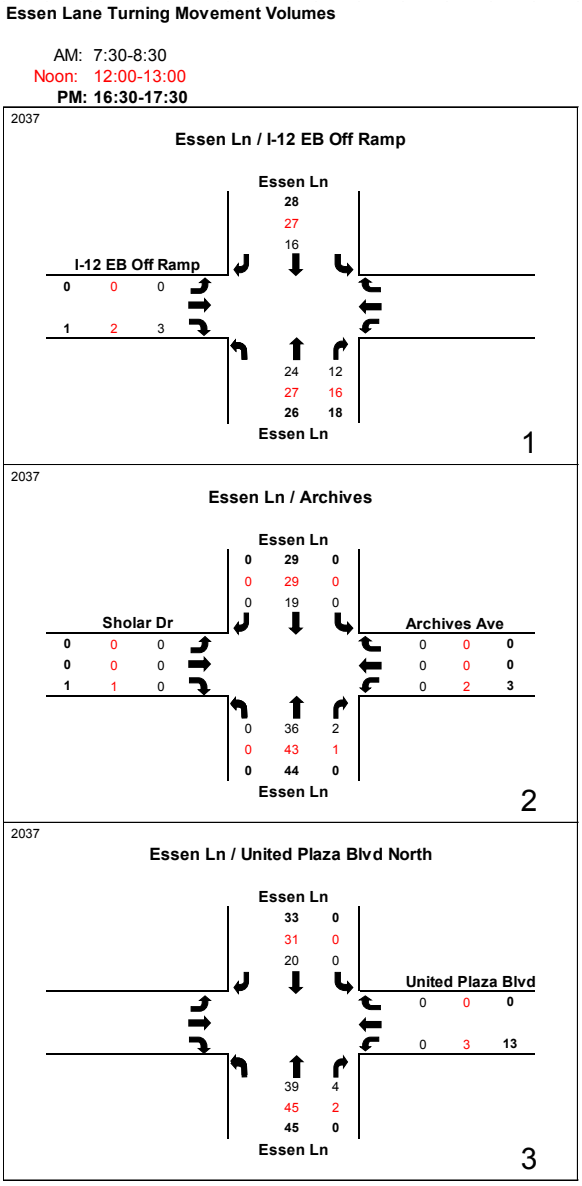


Figure K-12: Essen Lane 2037 Dijon Drive Extension Full Build Diverted Trips

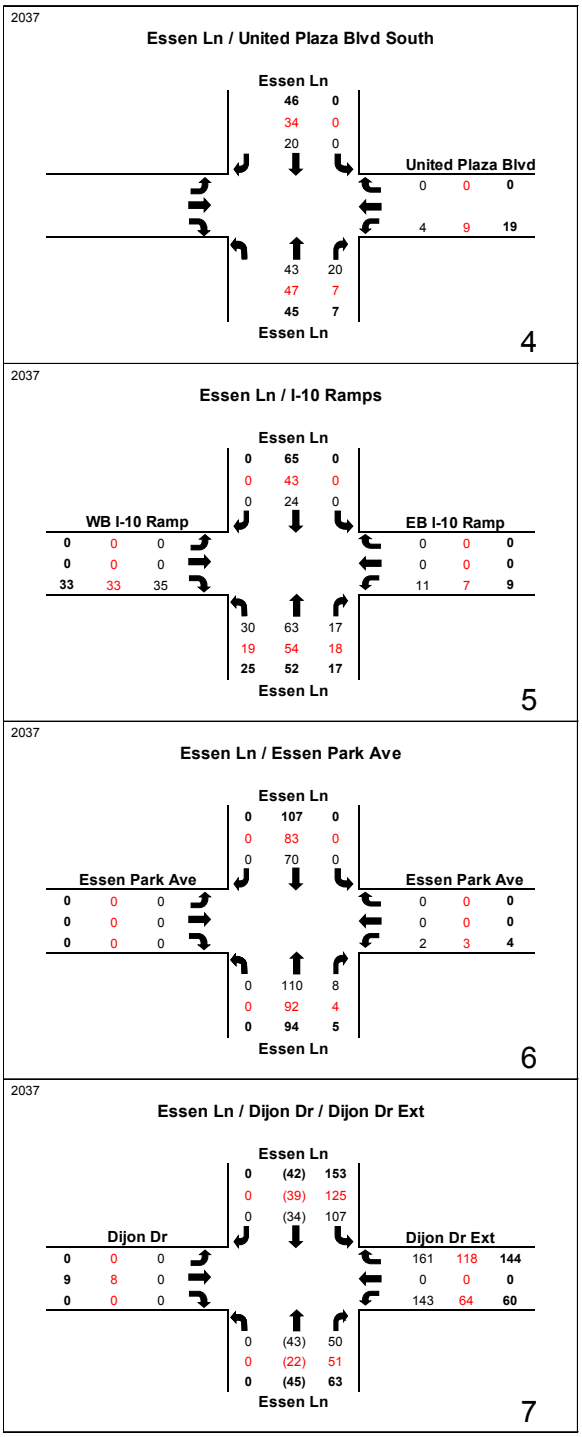


Figure K-13: Essen Lane 2037 Dijon Drive Extension Full Build Diverted Trips

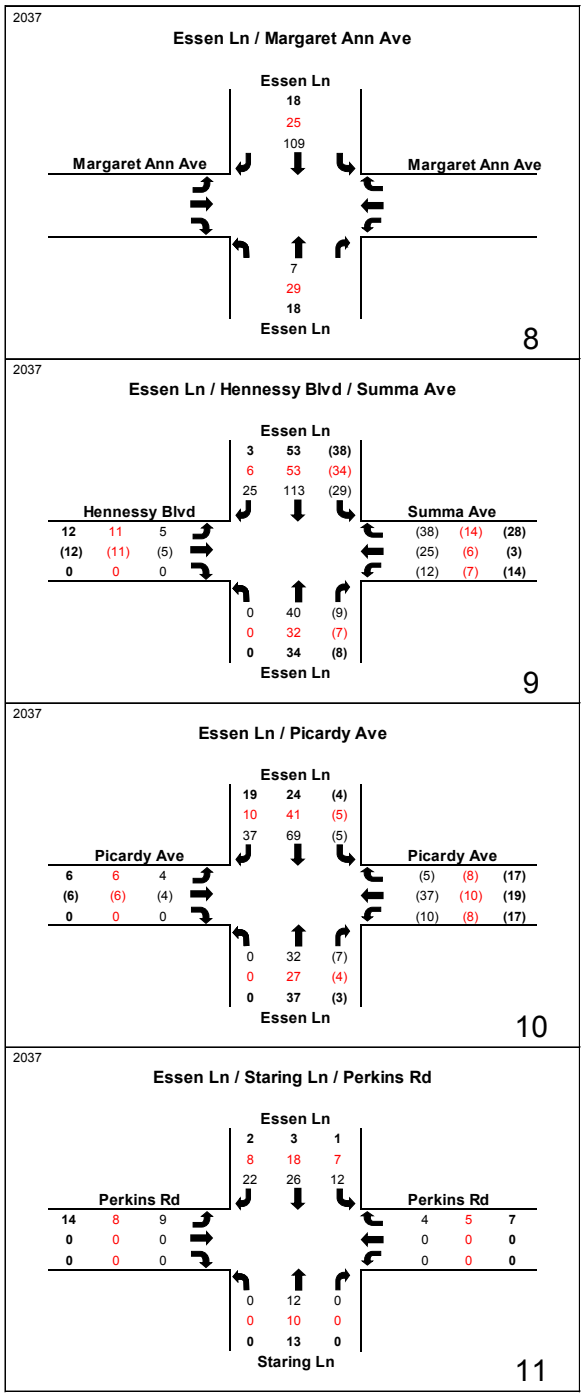


Figure K-14: Bluebonnet Blvd 2017 Dijon Drive Extension Full Build Diverted Trips

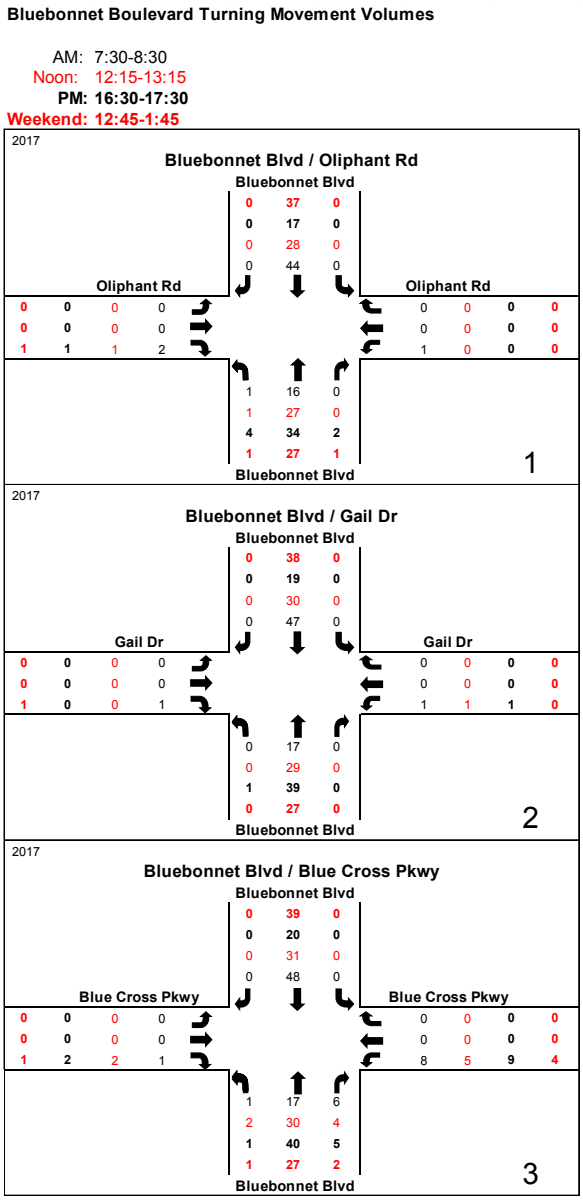


Figure K-15: Bluebonnet Blvd 2017 Dijon Drive Extension Full Build Diverted Trips

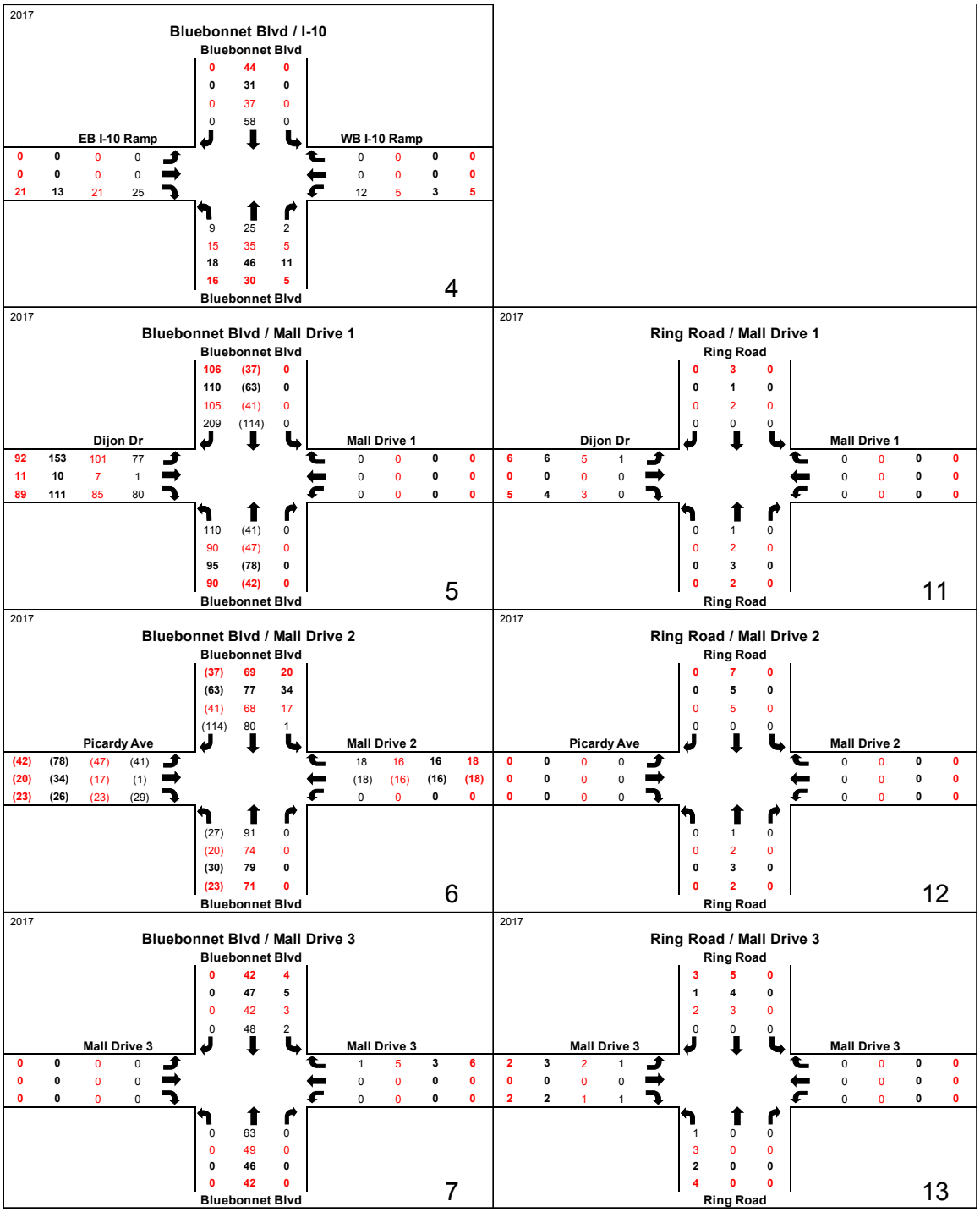


Figure K-16: Bluebonnet Blvd 2017 Dijon Drive Extension Full Build Diverted Trips

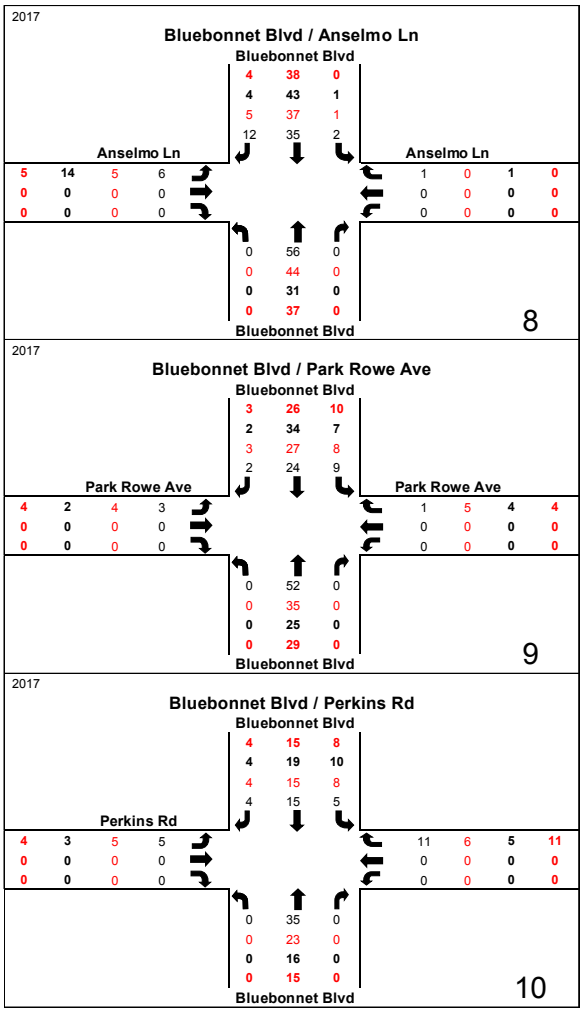


Figure K-17: Bluebonnet Blvd 2037 Dijon Drive Extension Full Build Diverted Trips

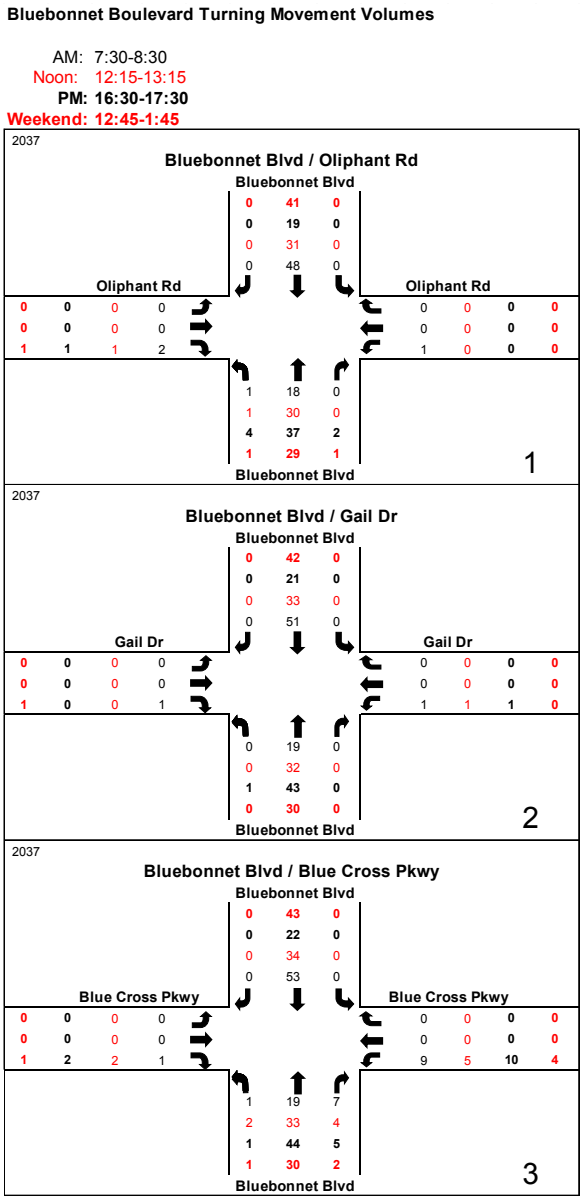


Figure K-18: Bluebonnet Blvd 2037 Dijon Drive Extension Full Build Diverted Trips

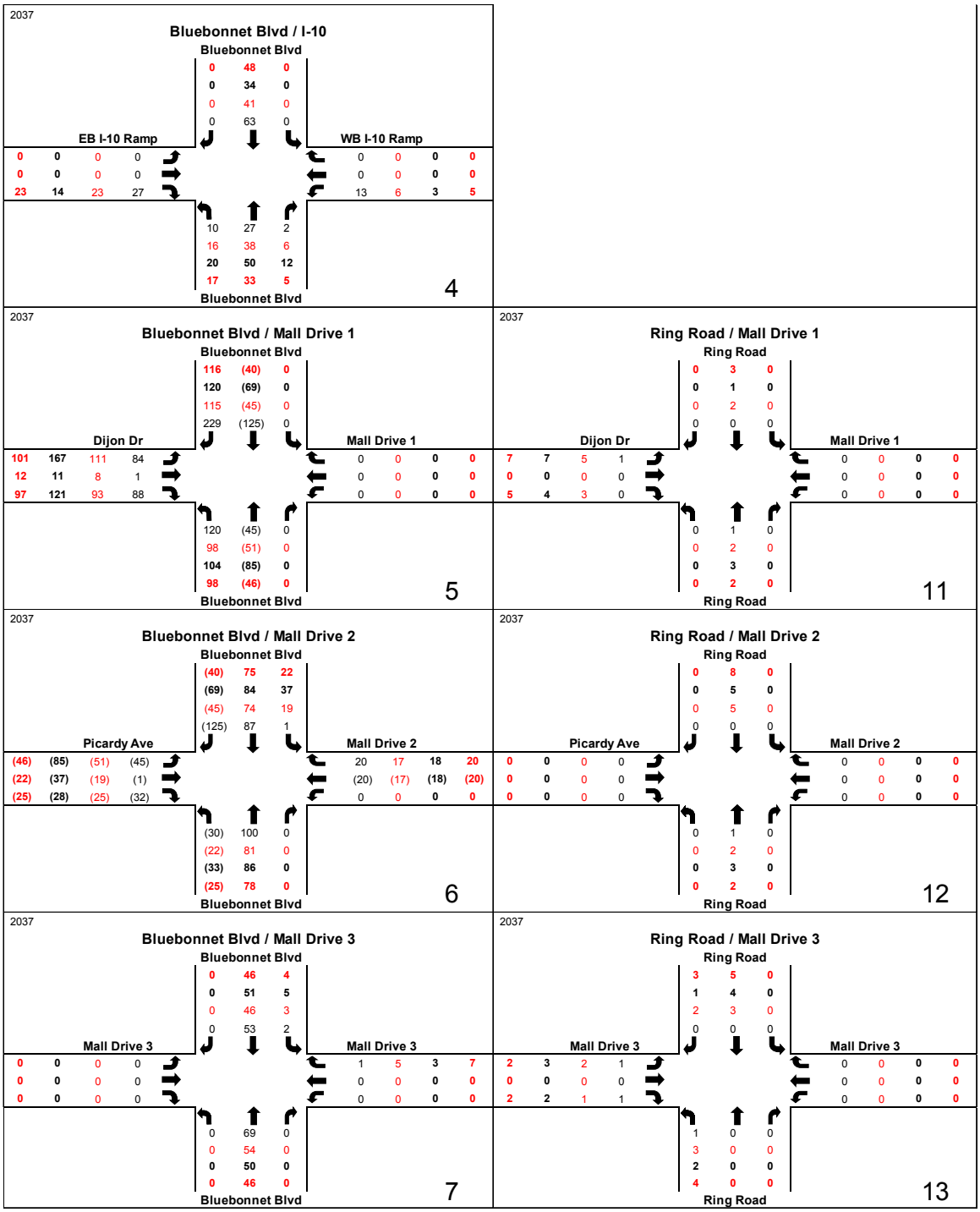
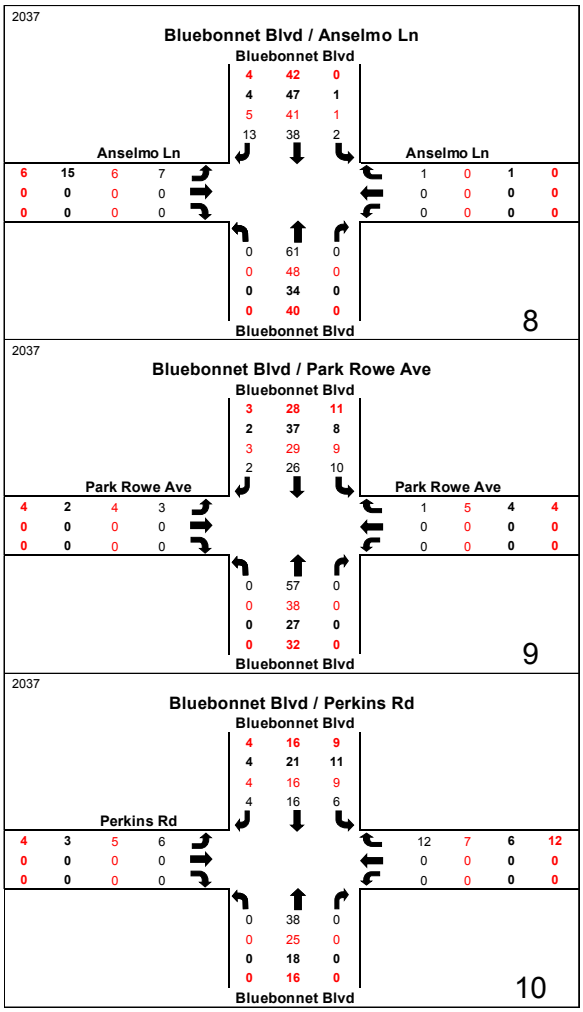


Figure K-19: Bluebonnet Blvd 2037 Dijon Drive Extension Full Build Diverted Trips



2013 LADOTD 24-HOUR COUNTS

	NB	SB	TOTAL	K	D
AM Peak	1781.5	2678.5	4460	0.075	0.60
Noon Peak	1901	1972.5	3873.5	0.065	0.51
PM Peak	2590	1953	4543	0.075	0.57
ADT	29582	29802	59384	1	0.50

Growth Rate	0.45%

ADT	**2013**	59384
	2033	64963
D		60%
K		7.5%
T		

2013 LADOTD 24-HOUR COUNTS

ESSEN LANE NORTH OF HENNESSY BLVD NB

Start	1/29/2013	2:00				
End	1/31/2013	2:00			**Hour Total**	
01	01	1	0215	0020		
01	01	1	0230	0004		
01	01	1	0245	0019		
01	01	1	0300	0023	66	
01	01	1	0315	0027	73	
01	01	1	0330	0043	112	
01	01	1	0345	0034	127	
01	01	1	0400	0036	140	
01	01	1	0415	0043	156	
01	01	1	0430	0044	157	
01	01	1	0445	0065	188	
01	01	1	0500	0059	211	
01	01	1	0515	0055	223	
01	01	1	0530	0080	259	
01	01	1	0545	0121	315	
01	01	1	0600	0108	364	
01	01	1	0615	0156	465	
01	01	1	0630	0196	581	
01	01	1	0645	0281	741	
01	01	1	0700	0326	959	
01	01	1	0715	0355	1158	
01	01	1	0730	0439	1401	
01	01	1	0745	0427	1547	
01	01	1	0800	0462	1683	
01	01	1	0815	0383	1711	
01	01	1	0830	0372	1644	
01	01	1	0845	0367	1584	
01	01	1	0900	0406	1528	
01	01	1	0915	0383	1528	
01	01	1	0930	0432	1588	
01	01	1	0945	0415	1636	
01	01	1	1000	0405	1635	
01	01	1	1015	0440	1692	
01	01	1	1030	0436	1696	
01	01	1	1045	0493	1774	
01	01	1	1100	0497	1866	
01	01	1	1115	0531	1957	
01	01	1	1130	0483	2004	
01	01	1	1145	0459	1970	
01	01	1	1200	0465	1938	
01	01	1	1215	0479	1886	
01	01	1	1230	0474	1877	
01	01	1	1245	0477	1895	
01	01	1	1300	0470	1900	
01	01	1	1315	0475	1896	
01	01	1	1330	0437	1859	
01	01	1	1345	0513	1895	
01	01	1	1400	0520	1945	

AM Peak	1711	7:30-8:30
Noon Peak	1895	12:00-1:00
PM Peak	2456	4:45-5:45
AM Peak	1781.5	7:30-8:30
Noon Peak	1901	12:00-1:00
PM Peak	2590	4:45-5:45
ADT	29582	12:00-12:00

2013 LADOTD 24-HOUR COUNTS

01	01	1	1415	0509	1979
01	01	1	1430	0539	2081
01	01	1	1445	0549	2117
01	01	1	1500	0630	2227
01	01	1	1515	0641	2359
01	01	1	1530	0618	2438
01	01	1	1545	0640	2529
01	01	1	1600	0601	2500
01	01	1	1615	0694	2553
01	01	1	1630	0684	2619
01	01	1	1645	0662	2641
01	01	1	1700	0617	2657
01	01	1	1715	0575	2538
01	01	1	1730	0602	2456
01	01	1	1745	0673	2467
01	01	1	1800	0606	2456
01	01	1	1815	0491	2372
01	01	1	1830	0433	2203
01	01	1	1845	0357	1887
01	01	1	1900	0309	1590
01	01	1	1915	0317	1416
01	01	1	1930	0312	1295
01	01	1	1945	0286	1224
01	01	1	2000	0293	1208
01	01	1	2015	0250	1141
01	01	1	2030	0283	1112
01	01	1	2045	0217	1043
01	01	1	2100	0196	946
01	01	1	2115	0213	909
01	01	1	2130	0146	772
01	01	1	2145	0130	685
01	01	1	2200	0144	633
01	01	1	2215	0127	547
01	01	1	2230	0109	510
01	01	1	2245	0112	492
01	01	1	2300	0072	420
01	01	1	2315	0102	395
01	01	1	2330	0105	391
01	01	1	2345	0087	366
01	01	1	2400	0053	347
01	01	1	0015	0048	293
01	01	1	0030	0043	231
01	01	1	0045	0042	186
01	01	1	0100	0020	153
01	01	1	0115	0026	131
01	01	1	0130	0019	107
01	01	1	0145	0021	86
01	01	1	0200	0019	85

2013 LADOTD 24-HOUR COUNTS

						AM Peak	1852	7:30-8:30
					Hour	**Noon Peak**	1907	12:00-1:00
					Total	**PM Peak**	2724	4:45-5:45
01	01	1	0215	0012				
01	01	1	0230	0009				
01	01	1	0245	0033				
01	01	1	0300	0021	75			
01	01	1	0315	0023	86			
01	01	1	0330	0034	111			
01	01	1	0345	0038	116			
01	01	1	0400	0035	130			
01	01	1	0415	0042	149			
01	01	1	0430	0043	158			
01	01	1	0445	0057	177			
01	01	1	0500	0050	192			
01	01	1	0515	0053	203			
01	01	1	0530	0075	235			
01	01	1	0545	0099	277			
01	01	1	0600	0131	358			
01	01	1	0615	0168	473			
01	01	1	0630	0191	589			
01	01	1	0645	0263	753			
01	01	1	0700	0341	963			
01	01	1	0715	0344	1139			
01	01	1	0730	0435	1383			
01	01	1	0745	0474	1594			
01	01	1	0800	0515	1768			
01	01	1	0815	0428	1852			
01	01	1	0830	0403	1820			
01	01	1	0845	0341	1687			
01	01	1	0900	0413	1585			
01	01	1	0915	0378	1535			
01	01	1	0930	0398	1530			
01	01	1	0945	0385	1574			
01	01	1	1000	0398	1559			
01	01	1	1015	0405	1586			
01	01	1	1030	0395	1583			
01	01	1	1045	0461	1659			
01	01	1	1100	0508	1769			
01	01	1	1115	0489	1853			
01	01	1	1130	0457	1915			
01	01	1	1145	0514	1968			
01	01	1	1200	0499	1959			
01	01	1	1215	0502	1972			
01	01	1	1230	0449	1964			
01	01	1	1245	0457	1907			
01	01	1	1300	0428	1836			
01	01	1	1315	0452	1786			
01	01	1	1330	0469	1806			
01	01	1	1345	0516	1865			
01	01	1	1400	0509	1946			
01	01	1	1415	0509	2003			

2013 LADOTD 24-HOUR COUNTS

01	01	1	1430	0559	2093
01	01	1	1445	0592	2169
01	01	1	1500	0626	2286
01	01	1	1515	0633	2410
01	01	1	1530	0627	2478
01	01	1	1545	0627	2513
01	01	1	1600	0683	2570
01	01	1	1615	0689	2626
01	01	1	1630	0743	2742
01	01	1	1645	0687	2802
01	01	1	1700	0626	2745
01	01	1	1715	0704	2760
01	01	1	1730	0707	2724
01	01	1	1745	0613	2650
01	01	1	1800	0420	2444
01	01	1	1815	0439	2179
01	01	1	1830	0400	1872
01	01	1	1845	0378	1637
01	01	1	1900	0368	1585
01	01	1	1915	0295	1441
01	01	1	1930	0331	1372
01	01	1	1945	0275	1269
01	01	1	2000	0294	1195
01	01	1	2015	0259	1159
01	01	1	2030	0257	1085
01	01	1	2045	0210	1020
01	01	1	2100	0200	926
01	01	1	2115	0204	871
01	01	1	2130	0176	790
01	01	1	2145	0167	747
01	01	1	2200	0151	698
01	01	1	2215	0138	632
01	01	1	2230	0135	591
01	01	1	2245	0113	537
01	01	1	2300	0095	481
01	01	1	2315	0123	466
01	01	1	2330	0106	437
01	01	1	2345	0090	414
01	01	1	2400	0036	355
01	01	1	0015	0050	282
01	01	1	0030	0043	219
01	01	1	0045	0037	166
01	01	1	0100	0021	151
01	01	1	0115	0033	134
01	01	1	0130	0036	127
01	01	1	0145	0037	127
01	01	1	0200	0024	130

→

2013 LADOTD 24-HOUR COUNTS

ESSEN LANE NORTH OF HENNESSY BLVD SB

Start	1/29/2013	2:00				
End	1/31/2013	2:00			**Hour Total**	
01	01	5	0215	0020		
01	01	5	0230	0021		
01	01	5	0245	0022		
01	01	5	0300	0025	88	
01	01	5	0315	0018	86	
01	01	5	0330	0019	84	
01	01	5	0345	0022	84	
01	01	5	0400	0020	79	
01	01	5	0415	0057	118	
01	01	5	0430	0037	136	
01	01	5	0445	0063	177	
01	01	5	0500	0102	259	
01	01	5	0515	0096	298	
01	01	5	0530	0128	389	
01	01	5	0545	0168	494	
01	01	5	0600	0286	678	
01	01	5	0615	0320	902	
01	01	5	0630	0483	1257	
01	01	5	0645	0497	1586	
01	01	5	0700	0557	1857	
01	01	5	0715	0549	2086	
01	01	5	0730	0686	2289	
01	01	5	0745	0701	2493	
01	01	5	0800	0699	2635	
01	01	5	0815	0667	2753	
01	01	5	0830	0637	2704	
01	01	5	0845	0596	2599	
01	01	5	0900	0576	2476	
01	01	5	0915	0520	2329	
01	01	5	0930	0506	2198	
01	01	5	0945	0518	2120	
01	01	5	1000	0536	2080	
01	01	5	1015	0425	1985	
01	01	5	1030	0460	1939	
01	01	5	1045	0461	1882	
01	01	5	1100	0439	1785	
01	01	5	1115	0441	1801	
01	01	5	1130	0477	1818	
01	01	5	1145	0438	1795	
01	01	5	1200	0435	1791	
01	01	5	1215	0466	1816	
01	01	5	1230	0428	1767	
01	01	5	1245	0545	1874	
01	01	5	1300	0508	1947	
01	01	5	1315	0436	1917	
01	01	5	1330	0491	1980	
01	01	5	1345	0469	1904	

AM Peak	2753	7:30-8:30
Noon Peak	1874	12:00-1:00
PM Peak	1987	4:15-5:15
AM Peak	2678.5	7:30-8:30
Noon Peak	1972.5	12:00-1:00
PM Peak	1953	4:45-5:45
ADT	29802	12:00-12:00

2013 LADOTD 24-HOUR COUNTS

01	01	5	1400	0512	1908
01	01	5	1415	0424	1896
01	01	5	1430	0439	1844
01	01	5	1445	0482	1857
01	01	5	1500	0476	1821
01	01	5	1515	0486	1883
01	01	5	1530	0470	1914
01	01	5	1545	0462	1894
01	01	5	1600	0453	1871
01	01	5	1615	0439	1824
01	01	5	1630	0509	1863
01	01	5	1645	0489	1890
01	01	5	1700	0517	1954
01	01	5	1715	0498	2013
01	01	5	1730	0483	1987
01	01	5	1745	0506	2004
01	01	5	1800	0466	1953
01	01	5	1815	0379	1834
01	01	5	1830	0394	1745
01	01	5	1845	0325	1564
01	01	5	1900	0276	1374
01	01	5	1915	0260	1255
01	01	5	1930	0218	1079
01	01	5	1945	0221	975
01	01	5	2000	0219	918
01	01	5	2015	0192	850
01	01	5	2030	0177	809
01	01	5	2045	0179	767
01	01	5	2100	0157	705
01	01	5	2115	0154	667
01	01	5	2130	0155	645
01	01	5	2145	0136	602
01	01	5	2200	0106	551
01	01	5	2215	0100	497
01	01	5	2230	0123	465
01	01	5	2245	0108	437
01	01	5	2300	0083	414
01	01	5	2315	0059	373
01	01	5	2330	0063	313
01	01	5	2345	0043	248
01	01	5	2400	0041	206
01	01	5	0015	0034	181
01	01	5	0030	0027	145
01	01	5	0045	0022	124
01	01	5	0100	0022	105
01	01	5	0115	0026	97
01	01	5	0130	0018	88
01	01	5	0145	0019	85
01	01	5	0200	0020	83

2013 LADOTD 24-HOUR COUNTS

						AM Peak	2604	7:30-8:30
					Hour	**Noon Peak**	2071	12:00-1:00
					Total	**PM Peak**	1919	4:15-5:15
01	01	5	0215	0017				
01	01	5	0230	0020				
01	01	5	0245	0014				
01	01	5	0300	0017	68			
01	01	5	0315	0018	69			
01	01	5	0330	0031	80			
01	01	5	0345	0031	97			
01	01	5	0400	0019	99			
01	01	5	0415	0034	115			
01	01	5	0430	0045	129			
01	01	5	0445	0063	161			
01	01	5	0500	0075	217			
01	01	5	0515	0090	273			
01	01	5	0530	0109	337			
01	01	5	0545	0169	443			
01	01	5	0600	0348	716			
01	01	5	0615	0424	1050			
01	01	5	0630	0526	1467			
01	01	5	0645	0539	1837			
01	01	5	0700	0596	2085			
01	01	5	0715	0530	2191			
01	01	5	0730	0607	2272			
01	01	5	0745	0688	2421			
01	01	5	0800	0705	2530			
01	01	5	0815	0604	2604			
01	01	5	0830	0636	2633			
01	01	5	0845	0537	2482			
01	01	5	0900	0642	2419			
01	01	5	0915	0601	2416			
01	01	5	0930	0491	2271			
01	01	5	0945	0455	2189			
01	01	5	1000	0483	2030			
01	01	5	1015	0472	1901			
01	01	5	1030	0431	1841			
01	01	5	1045	0461	1847			
01	01	5	1100	0499	1863			
01	01	5	1115	0426	1817			
01	01	5	1130	0454	1840			
01	01	5	1145	0471	1850			
01	01	5	1200	0625	1976			
01	01	5	1215	0549	2099			
01	01	5	1230	0429	2074			
01	01	5	1245	0468	2071			
01	01	5	1300	0443	1889			
01	01	5	1315	0509	1849			
01	01	5	1330	0465	1885			
01	01	5	1345	0493	1910			
01	01	5	1400	0493	1960			

2013 LADOTD 24-HOUR COUNTS

01	01	5	1415	0400	1851
01	01	5	1430	0438	1824
01	01	5	1445	0412	1743
01	01	5	1500	0425	1675
01	01	5	1515	0441	1716
01	01	5	1530	0486	1764
01	01	5	1545	0445	1797
01	01	5	1600	0430	1802
01	01	5	1615	0401	1762
01	01	5	1630	0499	1775
01	01	5	1645	0429	1759
01	01	5	1700	0484	1813
01	01	5	1715	0461	1873
01	01	5	1730	0545	1919
01	01	5	1745	0528	2018
01	01	5	1800	0594	2128
01	01	5	1815	0418	2085
01	01	5	1830	0388	1928
01	01	5	1845	0371	1771
01	01	5	1900	0280	1457
01	01	5	1915	0269	1308
01	01	5	1930	0246	1166
01	01	5	1945	0226	1021
01	01	5	2000	0201	942
01	01	5	2015	0229	902
01	01	5	2030	0206	862
01	01	5	2045	0201	837
01	01	5	2100	0202	838
01	01	5	2115	0166	775
01	01	5	2130	0155	724
01	01	5	2145	0166	689
01	01	5	2200	0140	627
01	01	5	2215	0126	587
01	01	5	2230	0131	563
01	01	5	2245	0111	508
01	01	5	2300	0088	456
01	01	5	2315	0088	418
01	01	5	2330	0071	358
01	01	5	2345	0052	299
01	01	5	2400	0047	258
01	01	5	0015	0028	198
01	01	5	0030	0033	160
01	01	5	0045	0026	134
01	01	5	0100	0036	123
01	01	5	0115	0018	113
01	01	5	0130	0029	109
01	01	5	0145	0030	113
01	01	5	0200	0018	95

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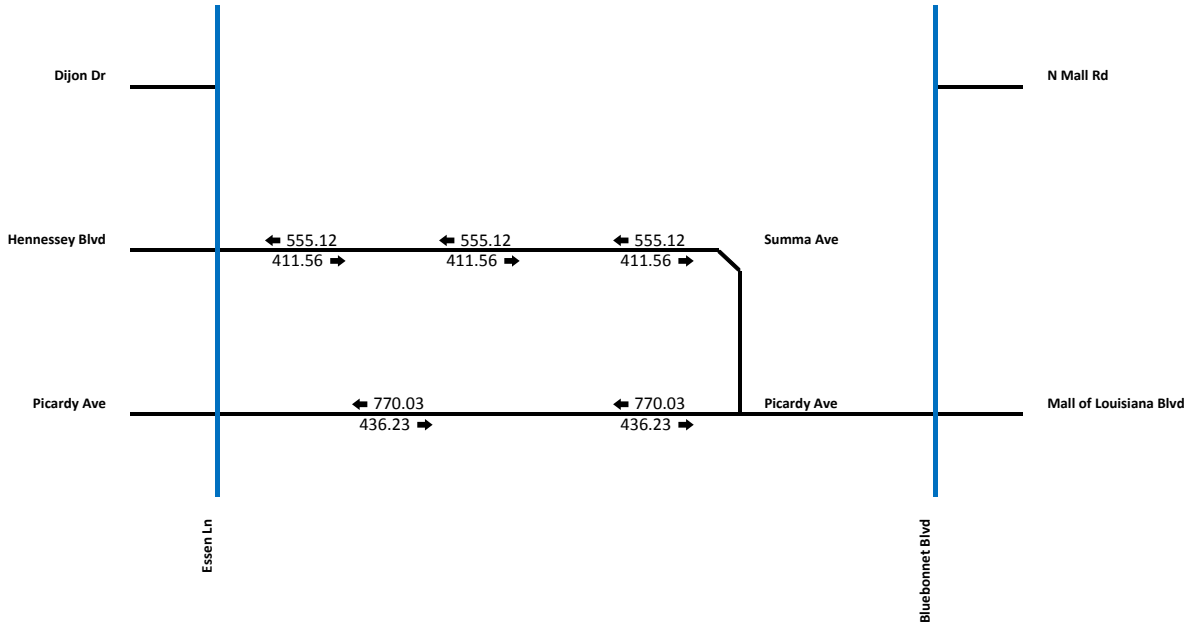
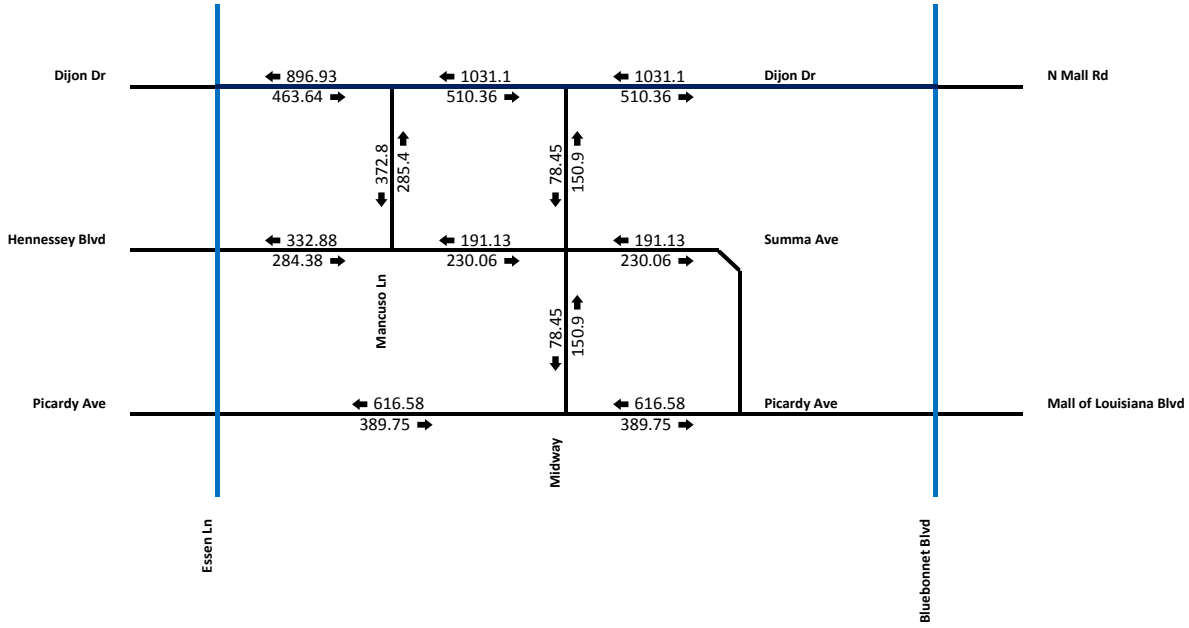
TRIP REDISTRIBUTION FIGURES



TransCAD 2037 AM Existing

TRANSCAD NO BUILD SCENARIO, AM PEAK PERIOD FLOW RATES

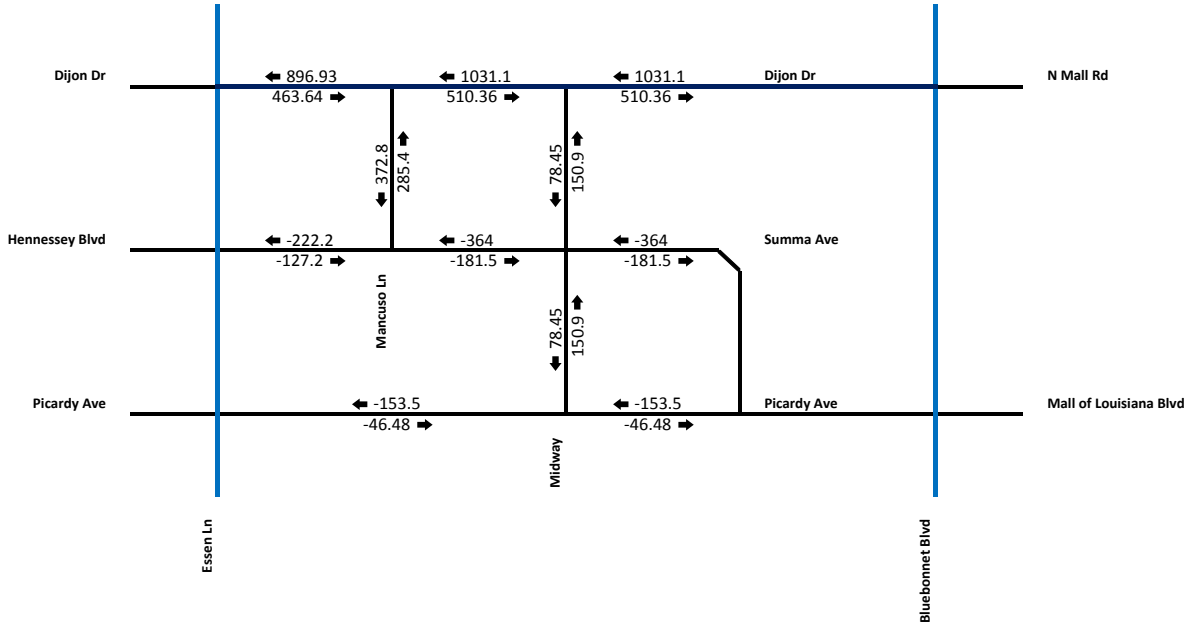
TRIP REDISTRIBUTION FIGURES



TransCAD 2037 AM Build

TRANSCAD BUILD SCENARIO, AM PEAK PERIOD FLOW RATES

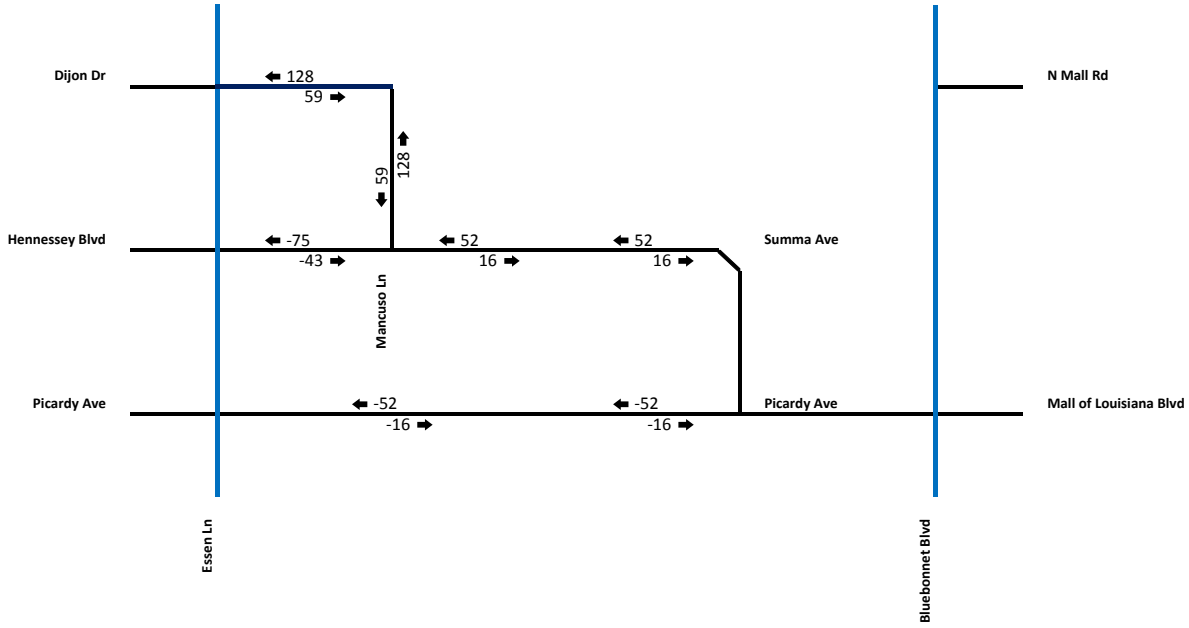
TRIP REDISTRIBUTION FIGURES



2037 AM Peak Period Change

TRANSCAD AM BUILD - TRANSCAD AM NO BUILD

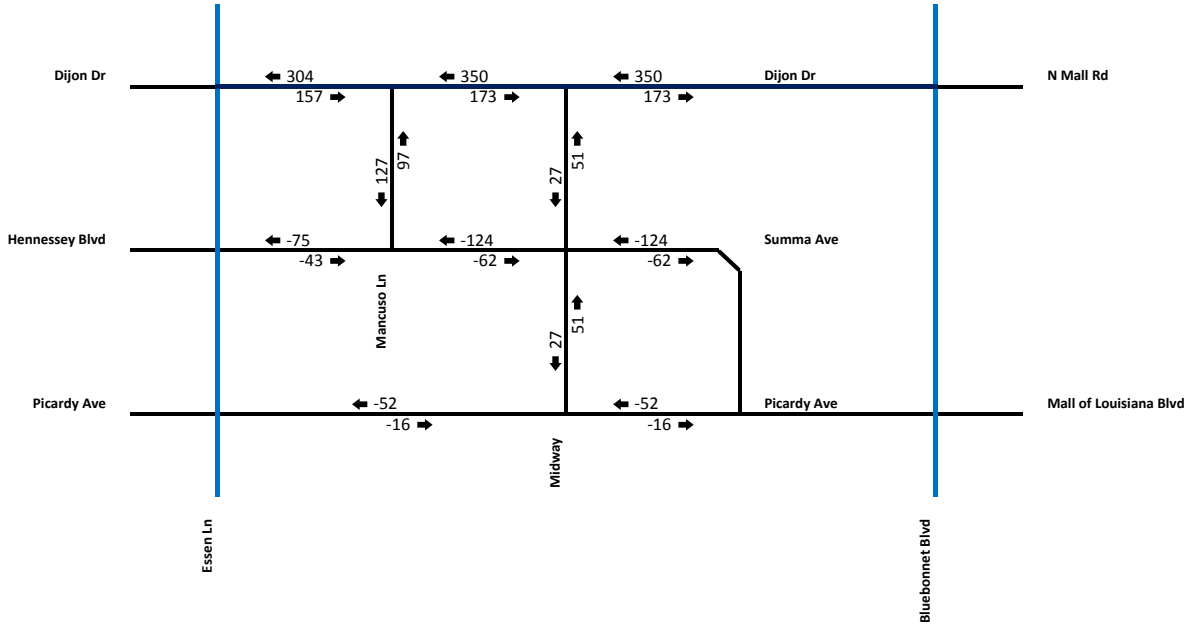
TRIP REDISTRIBUTION FIGURES



2037 AM No Build Trip Dist.

CHANGE FROM NO BUILD TO BUILD, ADJUSTED FOR EXPECTED K FACTOR

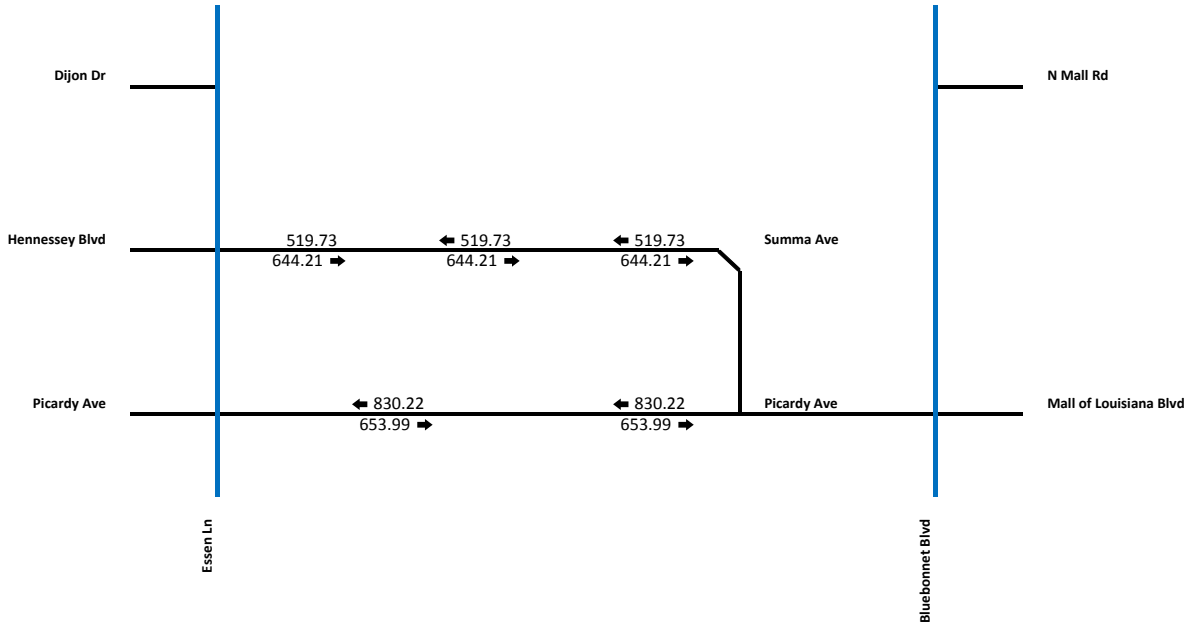
TRIP REDISTRIBUTION FIGURES



2037 AM Build Trip Dist.

CHANGE FROM NO BUILD TO BUILD, ADJUSTED FOR EXPECTED K FACTOR

TRIP REDISTRIBUTION FIGURES



TransCAD 2037 PM Existing

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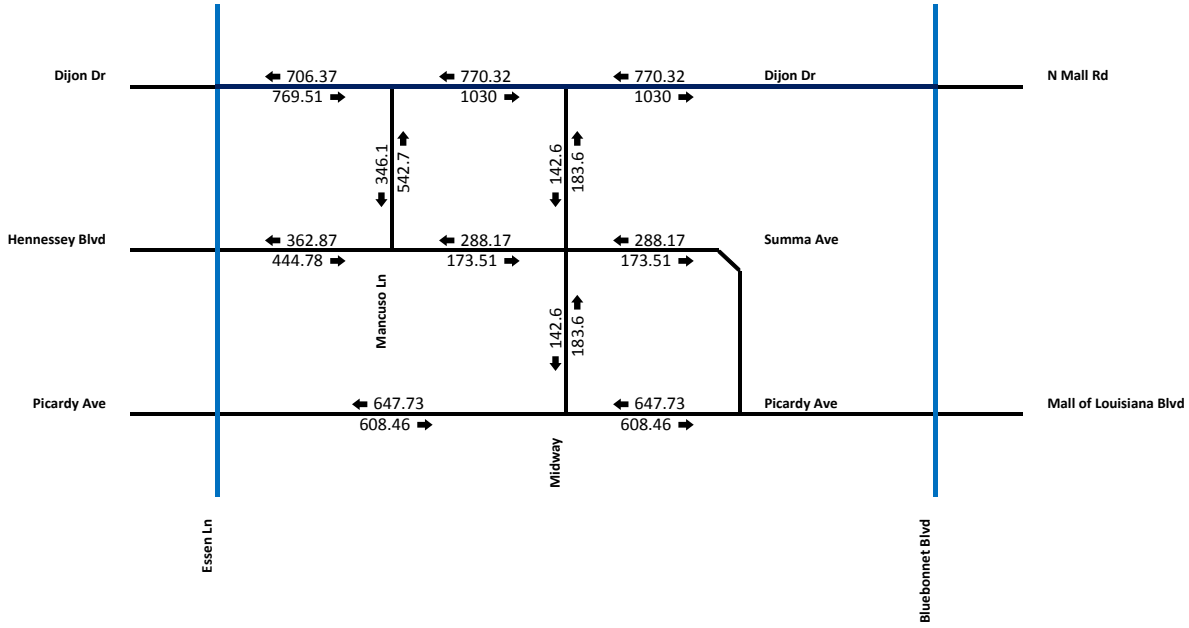

TransCAD 2037 PM Build

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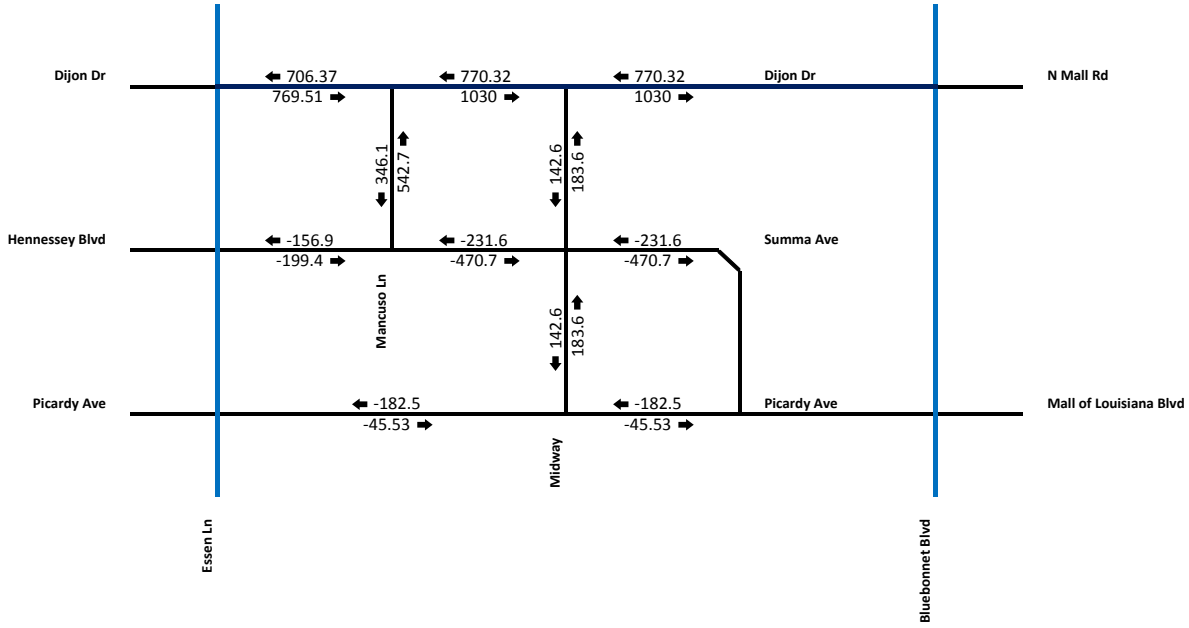
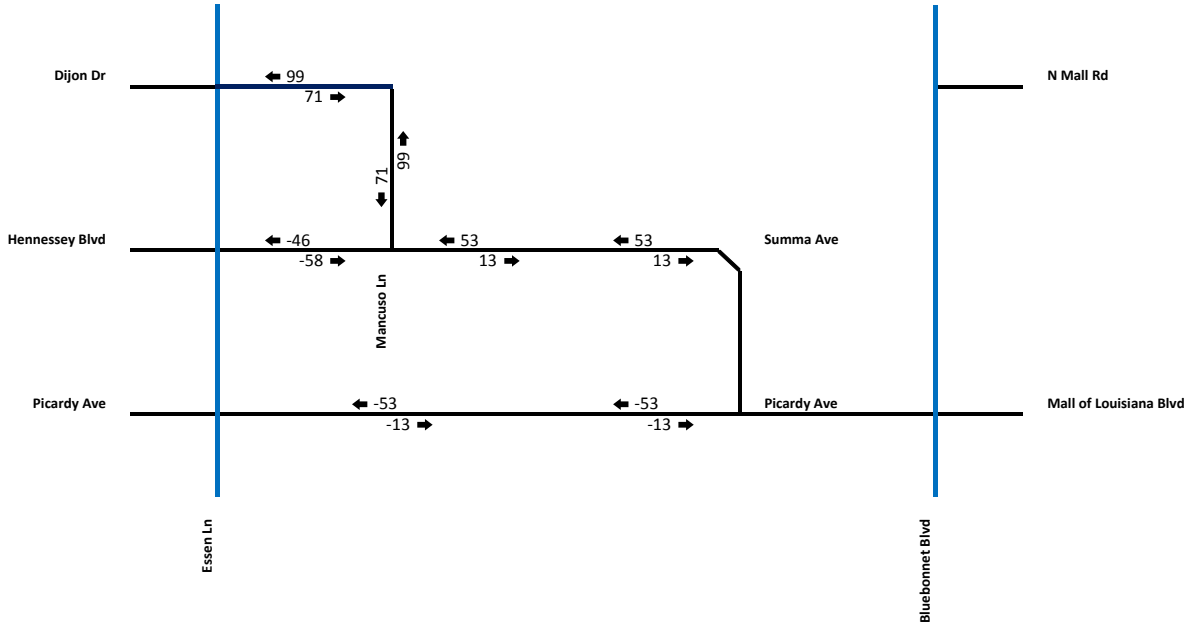


2037 PM Peak Period Change

TRANSCAD PM BUILD - TRANSCAD PM NO BUILD

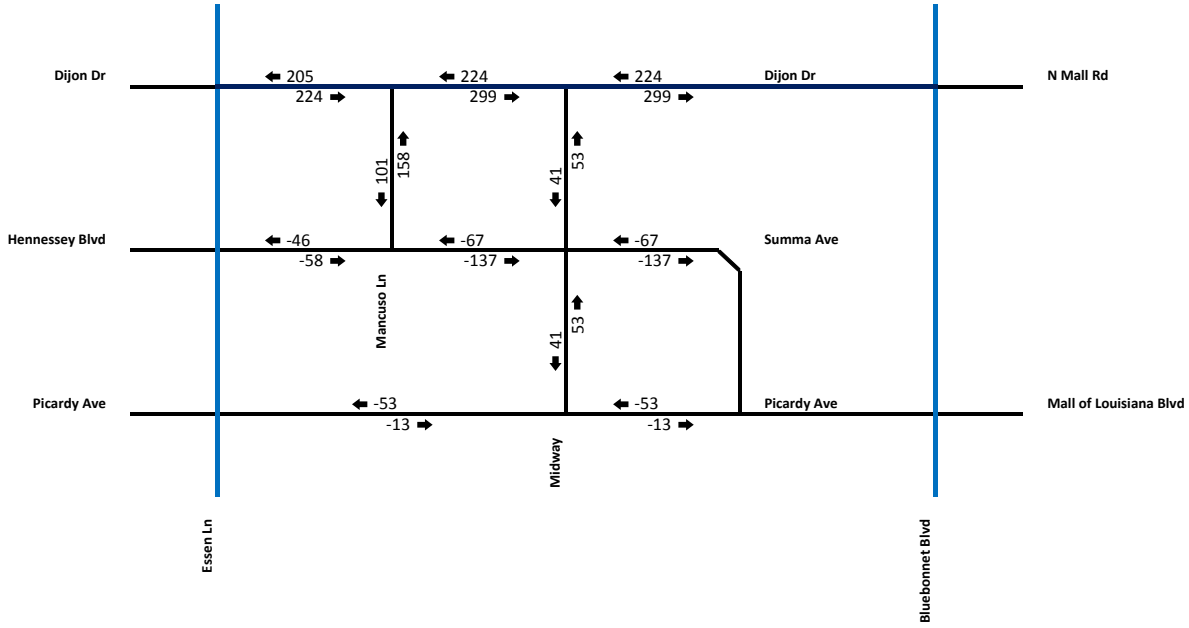
TRIP REDISTRIBUTION FIGURES



2037 PM No Build Trip Dist.

CHANGE FROM NO BUILD TO BUILD, ADJUSTED FOR EXPECTED K FACTOR

TRIP REDISTRIBUTION FIGURES



2037 PM Build Trip Dist.

CHANGE FROM NO BUILD TO BUILD, ADJUSTED FOR EXPECTED K FACTOR

Appendix L : 2015 EXISTING ESSEN SYNCHRO RESULTS

Figure L-1: Essen Lane Analysis Results 2015 AM

	2015 Existing				Available Storage Length (feet)
I-12 EB Off Ramp at Essen Ln	**Delay (sec.)**	**LOS**	**50% Queue (feet)**	**95% Queue (feet)**	
Northbound Thru (Essen Ln)	21.6	C	509	476	425
Southbound Thru (Essen Ln)	26.5	C	378	#578	1345
Eastbound Left (I-12 EB Off Ramp)	57.4	E	167	#323	190
Eastbound Right (I-12 EB Off Ramp)	59.0	E	137	#291	1160
Overall	**26.6**	**C**			
Archives Ave at Essen Ln					
Northbound Left (Essen Ln)	18.5	B	3	m11	175
Northbound Thru (Essen Ln)	18.7	B	146	288	460
Northbound Right (Essen Ln)	18.7	B	146	288	460
Southbound Left (Essen Ln)	38.4	D	305	m358	175
Southbound Thru (Essen Ln)	16.4	B	410	513	395
Southbound Right (Essen Ln)	16.4	B	410	513	395
Eastbound Left (Sholar Dr)	110.2	F	43	86	100
Eastbound Thru (Sholar Dr)	28.6	C	2	32	690
Eastbound Right (Sholar Dr)	28.6	C	2	32	690
Westbound Left (Archives Ave)	75.9	E	28	62	135
Westbound Thru (Archives Ave)	75.9	E	28	62	600
Westbound Right (Archives Ave)	25.3	C	20	41	600
Overall	**20.9**	**C**			
United Plaza Blvd North at Essen Ln					
Northbound Thru (Essen Ln)	13.6	B	480	138	965
Northbound Right (Essen Ln)	5.3	A	54	m18	965
Southbound Left (Essen Ln)	52.0	D	328	#569	165
Southbound Thru (Essen Ln)	6.8	A	362	391	485
Westbound Left (United Plaza)	78.4	E	25	58	1950
Westbound Right (United Plaza)	23.5	C	0	19	1950
Overall	**14.9**	**B**			
United Plaza Blvd South at Essen Ln					
Northbound Thru (Essen Ln)	17.4	B	332	715	740
Northbound Right (Essen Ln)	17.4	B	332	715	740
Southbound Left (Essen Ln)	83.9	F	321	#497	165
Southbound Thru (Essen Ln)	1.4	A	13	32	905
Westbound Left (United Plaza)	78.0	E	93	135	2150
Westbound Right (United Plaza)	41.3	D	142	210	105
Overall	**23.0**	**C**			
I-10 WB at Essen Ln					
Northbound Left (Essen Ln)	128.1	F	~479	#704	310
Northbound Thru (Essen Ln)	12.2	B	228	492	310
Southbound Thru (Essen Ln)	34.3	C	407	461	725
Southbound Right (Essen Ln)	34.3	C	407	461	725
Westbound Left (WB I-10 Ramp)	104.3	F	~499	#724	1960
Westbound Thru (WB I-10 Ramp)	104.3	F	~499	#724	5200
Westbound Right (WB I-10 Ramp)	1.2	A	0	0	5200
Overall	**40.9**	**D**			
I-10 EB at Essen Ln					
Northbound Thru (Essen Ln)	16.5	B	165	447	600
Northbound Right (Essen Ln)	16.5	B	165	447	600
Southbound Left (Essen Ln)	45.1	D	129	m168	305
Southbound Thru (Essen Ln)	7.2	A	132	m145	305
Eastbound Left (EB I-10 Ramp)	70.0	E	53	102	1620
Eastbound Thru (EB I-10 Ramp)	70.0	E	53	102	3335
Eastbound Right (EB I-10 Ramp)	14.4	B	0	#93	3335
Overall	**14.3**	**B**			
Essen Park Ave at Essen Ln					
Northbound Left (Essen Ln)	13.5	B	323	245	50
Northbound Thru (Essen Ln)	13.5	B	323	245	580
Northbound Right (Essen Ln)	13.5	B	323	245	580
Southbound Left (Essen Ln)	155.0	F	~214	m#310	180
Southbound Thru (Essen Ln)	7.0	A	342	291	610
Southbound Right (Essen Ln)	7.0	A	342	291	610
Eastbound Left (Essen Park)	0.2	A	0	0	1300
Eastbound Thru (Essen Park)	0.2	A	0	0	1300
Eastbound Right (Essen Park)	0.2	A	0	0	1300
Westbound Left (Essen Park)	96.0	F	97	162	110
Westbound Thru (Essen Park)	96.0	F	97	162	2000
Westbound Right (Essen Park)	44.9	D	36	70	2000
Overall	**17.1**	**B**			

Figure L-2: Essen Lane Analysis Results 2015 AM Continued

	2015 Existing				Available Storage Length (feet)
Dijon Ave/Dijon Extension at Essen Ln	**Delay (sec.)**	**LOS**	**50% Queue (feet)**	**95% Queue (feet)**	
Northbound Left (Essen Ln)	-	-	-	-	510
Northbound Thru (Essen Ln)	-	-	-	-	1025
Northbound Right (Essen Ln)	-	-	-	-	1025
Southbound Left (Essen Ln)	-	-	-	-	350
Southbound Thru (Essen Ln)	-	-	-	-	425
Southbound Right (Essen Ln)	-	-	-	-	425
Eastbound Left (Dijon)	-	-	-	-	1000
Eastbound Thru (Dijon)	-	-	-	-	1000
Eastbound Right (Dijon)	-	-	-	-	115
Westbound Left (Dijon Ext)	-	-	-	-	300
Westbound Thru (Dijon Ext)	-	-	-	-	1000
Westbound Right (Dijon Ext)	-	-	-	-	1000
Overall	**-**	**-**			
Margaret Ann Ave at Essen Ln					
Northbound Left (Essen Ln)	7.6	A	1	m2	490
Northbound Thru (Essen Ln)	4.9	A	103	268	980
Northbound Right (Essen Ln)	4.9	A	103	268	980
Southbound Left (Essen Ln)	2.4	A	2	m2	320
Southbound Thru (Essen Ln)	6.4	A	426	622	640
Southbound Right (Essen Ln)	6.4	A	426	622	640
Eastbound Left (Margaret Ann Ave)	80.5	F	19	48	95
Eastbound Thru (Margaret Ann Ave)	1.8	A	0	0	95
Eastbound Right (Margaret Ann Ave)	1.8	A	0	0	95
Westbound Left (Margaret Ann Ave)	0.7	A	0	0	1000
Westbound Thru (Margaret Ann Ave)	0.7	A	0	0	1000
Westbound Right (Margaret Ann Ave)	0.7	A	0	0	1000
Overall	**6.1**	**A**			
Hennessy Blvd / Summa Ave at Essen Ln					
Northbound Left (Essen Ln)	24.7	C	30	m71	1070
Northbound Thru (Essen Ln)	22.0	C	258	256	1240
Northbound Right (Essen Ln)	22.0	C	258	256	1240
Southbound Left (Essen Ln)	42.5	D	76	m157	610
Southbound Thru (Essen Ln)	15.9	B	286	240	770
Southbound Right (Essen Ln)	98.9	F	~1463	#1770	280
Eastbound Left (Hennessy)	103.2	F	189	#342	2310
Eastbound Thru (Hennessy)	100.8	F	188	#337	2310
Eastbound Right (Hennessy)	0.4	A	0	0	2310
Westbound Left (Summa)	91.1	F	0	0	1690
Westbound Thru (Summa)	91.1	F	184	269	1690
Westbound Right (Summa)	49.0	D	163	234	445
Overall	**49.7**	**D**			
Picardy Ave at Essen Ln					
Northbound Left (Essen Ln)	31.1	C	71	#160	375
Northbound Thru (Essen Ln)	14.8	B	346	466	375
Northbound Right (Essen Ln)	14.8	B	346	466	375
Southbound Left (Essen Ln)	3.7	A	4	m10	1010
Southbound Thru (Essen Ln)	3.7	A	19	19	1240
Southbound Right (Essen Ln)	1.3	A	19	19	1240
Eastbound Left (Picardy)	168.4	F	74	#168	300
Eastbound Thru (Picardy)	39.5	D	69	127	1890
Eastbound Right (Picardy)	39.5	D	69	127	1890
Westbound Left (Picardy)	61.2	E	51	93	190
Westbound Thru (Picardy)	79.9	E	215	299	4360
Westbound Right (Picardy)	79.9	E	215	299	4360
Overall	**19.3**	**B**			
Staring Ln / Perkins Rd at Essen Ln					
Northbound Left (Staring)	66.3	E	236	#409	930
Northbound Thru (Staring)	96.7	F	~490	#617	3502
Northbound Right (Staring)	96.7	F	~490	#617	3502
Southbound Left (Essen Ln)	72.4	E	207	#360	900
Southbound Thru (Essen Ln)	65.8	E	294	375	900
Southbound Right (Essen Ln)	14.3	B	45	177	900
Eastbound Left (Perkins)	82.1	F	302	386	300
Eastbound Thru (Perkins)	63.6	E	305	372	2065
Eastbound Right (Perkins)	63.6	E	305	372	2065
Westbound Left (Perkins)	50.8	D	67	129	5790
Westbound Thru (Perkins)	155.4	F	~921	#1149	6775
Westbound Right (Perkins)	155.4	F	~921	#1149	6775
Overall	**91.8**	**F**			

Figure L-3: Essen Lane Analysis Results 2015 Noon

	2015 Existing				Available Storage Length (feet)
I-12 EB Off Ramp at Essen Ln	**Delay (sec.)**	**LOS**	**50% Queue (feet)**	**95% Queue (feet)**	
Northbound Thru (Essen Ln)	10.6	B	393	146	425
Southbound Thru (Essen Ln)	8.8	A	254	371	1345
Eastbound Left (I-12 EB Off Ramp)	80.8	F	201	282	190
Eastbound Right (I-12 EB Off Ramp)	64.1	E	158	237	1160
Overall	**14.7**	**B**			
Archives Ave at Essen Ln					
Northbound Left (Essen Ln)	8.6	A	2	m5	175
Northbound Thru (Essen Ln)	9.4	A	148	153	460
Northbound Right (Essen Ln)	9.4	A	148	153	460
Southbound Left (Essen Ln)	38.9	D	90	221	175
Southbound Thru (Essen Ln)	8.4	A	154	367	395
Southbound Right (Essen Ln)	8.4	A	154	367	395
Eastbound Left (Sholar Dr)	66.7	E	46	87	100
Eastbound Thru (Sholar Dr)	21.2	C	1	30	690
Eastbound Right (Sholar Dr)	21.2	C	1	30	690
Westbound Left (Archives Ave)	76.6	E	80	135	135
Westbound Thru (Archives Ave)	76.6	E	80	135	600
Westbound Right (Archives Ave)	47.3	D	131	180	600
Overall	**14.6**	**B**			
United Plaza Blvd North at Essen Ln					
Northbound Thru (Essen Ln)	7.0	A	261	254	965
Northbound Right (Essen Ln)	2.6	A	4	33	965
Southbound Left (Essen Ln)	22.6	C	26	96	165
Southbound Thru (Essen Ln)	4.2	A	139	337	485
Westbound Left (United Plaza)	84.6	F	90	148	1950
Westbound Right (United Plaza)	11.6	B	0	40	1950
Overall	**9.1**	**A**			
United Plaza Blvd South at Essen Ln					
Northbound Thru (Essen Ln)	14.7	B	257	245	740
Northbound Right (Essen Ln)	47.7	D	257	245	740
Southbound Left (Essen Ln)	18.5	B	21	79	165
Southbound Thru (Essen Ln)	3.1	A	103	25	905
Westbound Left (United Plaza)	76.0	E	168	215	2150
Westbound Right (United Plaza)	56.4	E	216	300	105
Overall	**19.0**	**B**			
I-10 WB at Essen Ln					
Northbound Left (Essen Ln)	90.6	F	530	#667	310
Northbound Thru (Essen Ln)	5.2	A	226	187	310
Southbound Thru (Essen Ln)	67.8	E	523	#699	725
Southbound Right (Essen Ln)	67.8	E	523	#699	285
Westbound Left (WB I-10 Ramp)	55.8	E	172	257	1960
Westbound Thru (WB I-10 Ramp)	55.8	E	172	257	5200
Westbound Right (WB I-10 Ramp)	0.3	A	0	0	5200
Overall	**43.1**	**D**			
I-10 EB at Essen Ln					
Northbound Thru (Essen Ln)	37.2	D	575	955	600
Northbound Right (Essen Ln)	37.2	D	575	955	600
Southbound Left (Essen Ln)	308.5	F	~490	m#514	305
Southbound Thru (Essen Ln)	13.1	B	216	m226	305
Eastbound Left (EB I-10 Ramp)	58.6	E	11	34	1620
Eastbound Thru (EB I-10 Ramp)	58.6	E	11	34	3335
Eastbound Right (EB I-10 Ramp)	1.7	A	0	0	3335
Overall	**43.1**	**D**			
Essen Park Ave at Essen Ln					
Northbound Left (Essen Ln)	14.4	B	400	287	50
Northbound Thru (Essen Ln)	14.4	B	400	287	580
Northbound Right (Essen Ln)	14.4	B	400	287	580
Southbound Left (Essen Ln)	90.1	F	84	m143	180
Southbound Thru (Essen Ln)	3.8	A	203	87	610
Southbound Right (Essen Ln)	3.8	A	203	87	610
Eastbound Left (Essen Park)	51.3	D	13	40	1300
Eastbound Thru (Essen Park)	51.3	D	13	40	1300
Eastbound Right (Essen Park)	51.3	D	13	40	1300
Westbound Left (Essen Park)	90.0	F	70	123	110
Westbound Thru (Essen Park)	90.0	F	70	123	2000
Westbound Right (Essen Park)	49.4	D	54	92	2000
Overall	**12.5**	**B**			

Figure L-4: Essen Lane Analysis Results 2015 Noon Continued

	2015 Existing				Available Storage Length (feet)
Dijon Ave/Dijon Extension at Essen Ln	**Delay (sec.)**	**LOS**	**50% Queue (feet)**	**95% Queue (feet)**	
Northbound Left (Essen Ln)	-	-	-	-	510
Northbound Thru (Essen Ln)	-	-	-	-	1025
Northbound Right (Essen Ln)	-	-	-	-	1025
Southbound Left (Essen Ln)	-	-	-	-	350
Southbound Thru (Essen Ln)	-	-	-	-	425
Southbound Right (Essen Ln)	-	-	-	-	425
Eastbound Left (Dijon)	-	-	-	-	1000
Eastbound Thru (Dijon)	-	-	-	-	1000
Eastbound Right (Dijon)	-	-	-	-	115
Westbound Left (Dijon Ext)	-	-	-	-	300
Westbound Thru (Dijon Ext)	-	-	-	-	1000
Westbound Right (Dijon Ext)	-	-	-	-	1000
Overall	**-**	**-**			
Margaret Ann Ave at Essen Ln					
Northbound Left (Essen Ln)	6.0	A	1	m5	490
Northbound Thru (Essen Ln)	10.7	B	434	m492	980
Northbound Right (Essen Ln)	10.7	B	434	m492	980
Southbound Left (Essen Ln)	12.2	B	4	m6	320
Southbound Thru (Essen Ln)	20.0	C	597	736	640
Southbound Right (Essen Ln)	20.0	C	597	736	640
Eastbound Left (Margaret Ann Ave)	85.3	F	74	127	95
Eastbound Thru (Margaret Ann Ave)	19.2	B	1	44	95
Eastbound Right (Margaret Ann Ave)	19.2	B	1	44	95
Westbound Left (Margaret Ann Ave)	1.9	A	0	0	1000
Westbound Thru (Margaret Ann Ave)	1.9	A	0	0	1000
Westbound Right (Margaret Ann Ave)	1.9	A	0	0	1000
Overall	**16.3**	**B**			
Hennessy Blvd / Summa Ave at Essen Ln					
Northbound Left (Essen Ln)	40.7	D	31	m73	1070
Northbound Thru (Essen Ln)	90.9	F	~816	m#849	1240
Northbound Right (Essen Ln)	90.9	F	~816	m#849	1240
Southbound Left (Essen Ln)	294.8	F	~344	#541	610
Southbound Thru (Essen Ln)	17.1	B	413	421	770
Southbound Right (Essen Ln)	14.3	B	527	614	280
Eastbound Left (Hennessy)	115.0	F	~524	#758	2310
Eastbound Thru (Hennessy)	111.4	F	~517	#752	2310
Eastbound Right (Hennessy)	6.9	A	0	41	2310
Westbound Left (Summa)	97.9	F	204	#345	1690
Westbound Thru (Summa)	97.9	F	204	#345	1690
Westbound Right (Summa)	39.8	D	110	174	445
Overall	**73.0**	**E**			
Picardy Ave at Essen Ln					
Northbound Left (Essen Ln)	27.3	C	53	99	375
Northbound Thru (Essen Ln)	14.6	B	325	381	375
Northbound Right (Essen Ln)	14.6	B	325	381	375
Southbound Left (Essen Ln)	6.3	A	7	m12	1010
Southbound Thru (Essen Ln)	2.9	A	36	50	1240
Southbound Right (Essen Ln)	2.9	A	36	50	1240
Eastbound Left (Picardy)	376.3	F	~305	#477	300
Eastbound Thru (Picardy)	121.5	F	~333	#539	1890
Eastbound Right (Picardy)	121.5	F	~333	#539	1890
Westbound Left (Picardy)	389.2	F	~110	#226	190
Westbound Thru (Picardy)	58.6	E	145	230	4360
Westbound Right (Picardy)	58.6	E	145	230	4360
Overall	**48.8**	**D**			
Staring Ln / Perkins Rd at Essen Ln					
Northbound Left (Staring)	73.3	E	193	#326	930
Northbound Thru (Staring)	77.9	E	384	#492	3502
Northbound Right (Staring)	77.9	E	384	#492	3502
Southbound Left (Essen Ln)	149.0	F	~426	#692	900
Southbound Thru (Essen Ln)	105.7	F	~582	#781	900
Southbound Right (Essen Ln)	29.6	C	161	313	900
Eastbound Left (Perkins)	80.7	F	272	344	300
Eastbound Thru (Perkins)	57.4	E	504	642	2065
Eastbound Right (Perkins)	57.4	E	504	642	2065
Westbound Left (Perkins)	86.2	F	186	280	5790
Westbound Thru (Perkins)	221.9	F	~1120	#1356	6775
Westbound Right (Perkins)	221.9	F	~1120	#1356	6775
Overall	**117.1**	**F**			

Figure L-5: Essen Lane Analysis Results 2015 PM

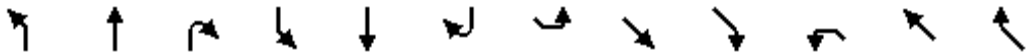
	2015 Existing				Available Storage Length (feet)
I-12 EB Off Ramp at Essen Ln	**Delay (sec.)**	**LOS**	**50% Queue (feet)**	**95% Queue (feet)**	
Northbound Thru (Essen Ln)	15.2	B	0	736	425
Southbound Thru (Essen Ln)	7.2	A	121	195	1345
Eastbound Left (I-12 EB Off Ramp)	42.0	D	73	125	190
Eastbound Right (I-12 EB Off Ramp)	26.6	C	43	93	1160
Overall	**14.0**	**B**			
Archives Ave at Essen Ln					
Northbound Left (Essen Ln)	2.9	A	1	m1	175
Northbound Thru (Essen Ln)	9.6	A	1018	162	460
Northbound Right (Essen Ln)	9.6	A	1018	162	460
Southbound Left (Essen Ln)	30.4	C	6	45	175
Southbound Thru (Essen Ln)	28.4	C	273	756	395
Southbound Right (Essen Ln)	28.4	C	273	756	395
Eastbound Left (Sholar Dr)	58.0	E	59	110	100
Eastbound Thru (Sholar Dr)	0.2	A	0	0	690
Eastbound Right (Sholar Dr)	0.2	A	0	0	690
Westbound Left (Archives Ave)	61.8	E	109	178	135
Westbound Thru (Archives Ave)	61.8	E	109	178	600
Westbound Right (Archives Ave)	73.4	E	415	546	600
Overall	**22.4**	**C**			
United Plaza Blvd North at Essen Ln					
Northbound Thru (Essen Ln)	13.5	B	934	180	965
Northbound Right (Essen Ln)	0.5	A	1	m0	965
Southbound Left (Essen Ln)	58.3	E	15	73	165
Southbound Thru (Essen Ln)	5.2	A	123	72	485
Westbound Left (United Plaza)	184.3	F	~706	#939	1950
Westbound Right (United Plaza)	24.1	C	35	76	1950
Overall	**31.2**	**C**			
United Plaza Blvd South at Essen Ln					
Northbound Thru (Essen Ln)	22.0	C	746	987	740
Northbound Right (Essen Ln)	22.0	C	746	987	740
Southbound Left (Essen Ln)	65.1	E	122	m179	165
Southbound Thru (Essen Ln)	8.8	A	415	m316	905
Westbound Left (United Plaza)	77.2	E	337	391	2150
Westbound Right (United Plaza)	49.8	D	311	398	105
Overall	**28.4**	**C**			
I-10 WB at Essen Ln					
Northbound Left (Essen Ln)	255.7	F	~1269	m#1211	310
Northbound Thru (Essen Ln)	23.2	C	121	m103	310
Southbound Thru (Essen Ln)	70.2	E	621	769	725
Southbound Right (Essen Ln)	70.2	E	621	769	285
Westbound Left (WB I-10 Ramp)	93.9	F	219	#348	1960
Westbound Thru (WB I-10 Ramp)	93.9	F	219	#348	5200
Westbound Right (WB I-10 Ramp)	0.4	A	0	0	5200
Overall	**79.6**	**E**			
I-10 EB at Essen Ln					
Northbound Thru (Essen Ln)	77.4	E	~126	#1399	600
Northbound Right (Essen Ln)	77.4	E	~126	#1399	600
Southbound Left (Essen Ln)	180.0	F	~761	m#881	305
Southbound Thru (Essen Ln)	4.5	A	68	152	305
Eastbound Left (EB I-10 Ramp)	80.2	F	20	49	1620
Eastbound Thru (EB I-10 Ramp)	80.2	F	20	49	3335
Eastbound Right (EB I-10 Ramp)	0.9	A	0	0	3335
Overall	**58.1**	**E**			
Essen Park Ave at Essen Ln					
Northbound Left (Essen Ln)	45.6	D	466	m590	50
Northbound Thru (Essen Ln)	45.6	D	466	m590	580
Northbound Right (Essen Ln)	45.6	D	466	m590	580
Southbound Left (Essen Ln)	94.5	F	88	152	180
Southbound Thru (Essen Ln)	10.9	B	730	530	610
Southbound Right (Essen Ln)	10.9	B	730	530	610
Eastbound Left (Essen Park)	55.3	E	19	54	1300
Eastbound Thru (Essen Park)	55.3	E	19	54	1300
Eastbound Right (Essen Park)	55.3	E	19	54	1300
Westbound Left (Essen Park)	83.9	F	88	153	110
Westbound Thru (Essen Park)	83.9	F	88	153	2000
Westbound Right (Essen Park)	73.9	E	267	370	2000
Overall	**34.6**	**C**			

Figure L-6: Essen Lane Analysis Results 2015 PM Continued

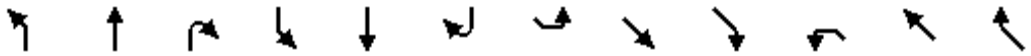
	2015 Existing				Available Storage Length (feet)
Dijon Ave/Dijon Extension at Essen Ln	**Delay (sec.)**	**LOS**	**50% Queue (feet)**	**95% Queue (feet)**	
Northbound Left (Essen Ln)	-	-	-	-	510
Northbound Thru (Essen Ln)	-	-	-	-	1025
Northbound Right (Essen Ln)	-	-	-	-	1025
Southbound Left (Essen Ln)	-	-	-	-	350
Southbound Thru (Essen Ln)	-	-	-	-	425
Southbound Right (Essen Ln)	-	-	-	-	425
Eastbound Left (Dijon)	-	-	-	-	1000
Eastbound Thru (Dijon)	-	-	-	-	1000
Eastbound Right (Dijon)	-	-	-	-	115
Westbound Left (Dijon Ext)	-	-	-	-	300
Westbound Thru (Dijon Ext)	-	-	-	-	1000
Westbound Right (Dijon Ext)	-	-	-	-	1000
Overall	**-**	**-**			
Margaret Ann Ave at Essen Ln					
Northbound Left (Essen Ln)	2.1	A	3	m3	490
Northbound Thru (Essen Ln)	47.2	D	866	m783	980
Northbound Right (Essen Ln)	47.2	D	866	m783	980
Southbound Left (Essen Ln)	6.6	A	2	m5	320
Southbound Thru (Essen Ln)	25.9	C	887	926	640
Southbound Right (Essen Ln)	25.9	C	887	926	640
Eastbound Left (Margaret Ann Ave)	368.4	F	~217	#369	95
Eastbound Thru (Margaret Ann Ave)	17.1	B	1	48	95
Eastbound Right (Margaret Ann Ave)	17.1	B	1	48	95
Westbound Left (Margaret Ann Ave)	22.5	C	31	110	1000
Westbound Thru (Margaret Ann Ave)	22.5	C	31	110	1000
Westbound Right (Margaret Ann Ave)	22.5	C	31	110	1000
Overall	**44.9**	**D**			
Hennessy Blvd / Summa Ave at Essen Ln					
Northbound Left (Essen Ln)	23.6	C	8	m14	1070
Northbound Thru (Essen Ln)	92.4	F	~884	#1026	1240
Northbound Right (Essen Ln)	92.4	F	~884	#1026	1240
Southbound Left (Essen Ln)	130.8	F	~295	#490	610
Southbound Thru (Essen Ln)	21.0	C	647	556	770
Southbound Right (Essen Ln)	2.7	A	27	35	280
Eastbound Left (Hennessy)	168.0	F	~840	#1097	2310
Eastbound Thru (Hennessy)	162.5	F	~832	#1089	2310
Eastbound Right (Hennessy)	22.6	C	69	144	2310
Westbound Left (Summa)	226.3	F	~298	#478	1690
Westbound Thru (Summa)	226.3	F	~298	#478	1690
Westbound Right (Summa)	87.3	F	363	#545	445
Overall	**84.7**	**F**			
Picardy Ave at Essen Ln					
Northbound Left (Essen Ln)	41.0	D	40	97	375
Northbound Thru (Essen Ln)	25.6	C	460	531	375
Northbound Right (Essen Ln)	25.6	C	460	531	375
Southbound Left (Essen Ln)	8.1	A	17	m23	1010
Southbound Thru (Essen Ln)	6.2	A	116	m128	1240
Southbound Right (Essen Ln)	6.2	A	116	m128	1240
Eastbound Left (Picardy)	71.5	E	176	274	300
Eastbound Thru (Picardy)	76.0	E	401	#595	1890
Eastbound Right (Picardy)	76.0	E	401	#595	1890
Westbound Left (Picardy)	206.6	F	~91	#208	190
Westbound Thru (Picardy)	45.4	D	119	192	4360
Westbound Right (Picardy)	45.4	D	119	192	4360
Overall	**27.1**	**C**			
Staring Ln / Perkins Rd at Essen Ln					
Northbound Left (Staring)	77.0	E	207	#350	930
Northbound Thru (Staring)	70.0	E	341	428	3502
Northbound Right (Staring)	70.0	E	341	428	3502
Southbound Left (Essen Ln)	212.0	F	~574	#836	900
Southbound Thru (Essen Ln)	173.7	F	~787	#966	900
Southbound Right (Essen Ln)	75.6	E	~503	#784	900
Eastbound Left (Perkins)	83.4	F	303	376	300
Eastbound Thru (Perkins)	129.5	F	~1031	#1223	2065
Eastbound Right (Perkins)	129.5	F	~1031	#1223	2065
Westbound Left (Perkins)	105.9	F	201	#299	5790
Westbound Thru (Perkins)	106.5	F	~752	#935	6775
Westbound Right (Perkins)	106.5	F	~752	#935	6775
Overall	**120.3**	**F**			

Appendix M : SYNCHRO RESULTS

M.1 2015 EXISTING AM – ESSEN LANE



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	277	684	41	226	504	419	508	495	34	74	963	241
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	800		0	300		0	150		0
Storage Lanes	1		0	1		1	2		0	1		0
Taper Length (ft)	150			25			200			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Frt		0.991				0.850		0.990			0.970	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3507	0	1770	3539	1583	3433	3504	0	1770	3433	0
Flt Permitted	0.207			0.113			0.950			0.950		
Satd. Flow (perm)	386	3507	0	210	3539	1583	3433	3504	0	1770	3433	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3				405		4			18	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1877			1475			2128			1788	
Travel Time (s)		28.4			22.3			32.2			27.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	301	743	45	246	548	455	552	538	37	80	1047	262
Shared Lane Traffic (%)												
Lane Group Flow (vph)	301	788	0	246	548	455	552	575	0	80	1309	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	0	1	1		1	1	
Detector Template												
Leading Detector (ft)	45	290		45	290	0	45	45		45	45	
Trailing Detector (ft)	-6	284		-6	284	0	-6	-6		-6	-6	
Detector 1 Position(ft)	-6	-6		-6	-6	0	-6	-6		-6	-6	
Detector 1 Size(ft)	51	51		51	51	50	51	51		51	51	
Detector 1 Type	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2		2						
Detector Phase	1	6		5	2	2	3	8		7	4	



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	5.0	10.0		3.0	10.0	
Minimum Split (s)	8.8	15.8		8.8	15.8	15.8	11.5	16.5		9.5	16.5	
Total Split (s)	30.8	40.8		30.8	45.8	45.8	41.5	66.5		21.5	56.5	
Total Split (%)	17.6%	23.4%		17.6%	26.2%	26.2%	23.8%	38.1%		12.3%	32.4%	
Maximum Green (s)	25.0	35.0		25.0	40.0	40.0	35.0	60.0		15.0	50.0	
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8	5.5	5.5		5.5	5.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8		5.8	5.8	5.8	6.5	6.5		6.5	6.5	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	6.0		2.0	6.0	6.0	2.0	6.0		2.0	6.0	
Minimum Gap (s)	0.2	4.0		0.2	4.0	4.0	0.2	4.0		0.2	4.0	
Time Before Reduce (s)	0.0	20.0		0.0	20.0	20.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	
Act Effct Green (s)	59.3	36.1		57.7	35.3	35.3	29.7	36.8		43.0	50.2	
Actuated g/C Ratio	0.36	0.22		0.35	0.22	0.22	0.18	0.23		0.26	0.31	
v/c Ratio	0.89	1.01		0.85	0.72	0.69	0.88	0.72		0.17	1.22	
Control Delay	66.3	96.7		72.4	65.8	14.3	82.1	63.6		50.8	155.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	66.3	96.7		72.4	65.8	14.3	82.1	63.6		50.8	155.4	
LOS	E	F		E	E	B	F	E		D	F	
Approach Delay		88.3			48.3			72.7			149.4	
Approach LOS		F			D			E			F	
Queue Length 50th (ft)	236	~490		207	294	45	302	305		67	~921	
Queue Length 95th (ft)	#409	#617		#360	375	177	386	372		129	#1149	
Internal Link Dist (ft)		1797			1395			2048			1708	
Turn Bay Length (ft)	250			800			300			150		
Base Capacity (vph)	356	865		317	871	694	739	1296		466	1069	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.85	0.91		0.78	0.63	0.66	0.75	0.44		0.17	1.22	

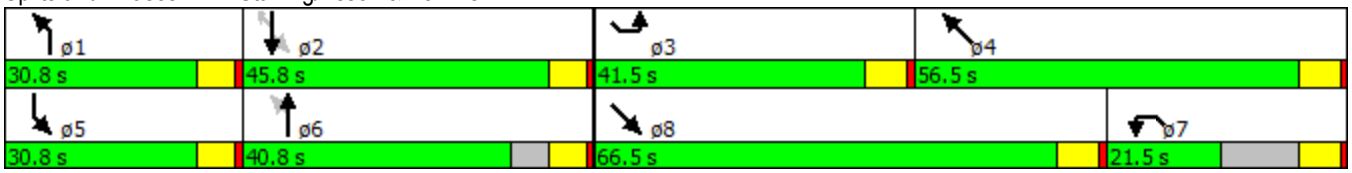
Intersection Summary			
Area Type:	Other		
Cycle Length: 174.6			
Actuated Cycle Length: 163			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.22			
Intersection Signal Delay: 91.8		Intersection LOS: F	
Intersection Capacity Utilization 102.0%		ICU Level of Service G	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

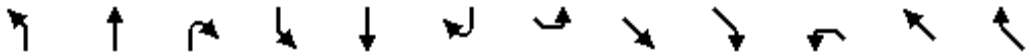
Queue shown is maximum after two cycles.

Splits and Phases: 2: Starring/Essen & Perkins



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	0	1267	239	124	1414	0	52	0	1378	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.976							0.850			
Flt Protected				0.950				0.950				
Satd. Flow (prot)	0	4963	0	1770	3539	0	0	1770	1583	0	0	0
Flt Permitted				0.950				0.950				
Satd. Flow (perm)	0	4963	0	1770	3539	0	0	1770	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		49							209			
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		721			409			1012			1106	
Travel Time (s)		10.9			6.2			23.0			25.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1377	260	135	1537	0	57	0	1498	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1637	0	135	1537	0	0	57	1498	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			20			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2		1	1	0			
Detector Template							Left					
Leading Detector (ft)		290		45	290		20	45	0			
Trailing Detector (ft)		284		-6	284		0	-6	0			
Detector 1 Position(ft)		-6		-6	-6		0	-6	0			
Detector 1 Size(ft)		51		51	51		20	51	20			
Detector 1 Type		Call		Cl+Ex	Call		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Queue (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Delay (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA		Prot	NA		Perm	NA	Free			
Protected Phases		6		5	5 6			8				
Permitted Phases							8		Free			
Detector Phase		6		5	5 6		8	8				
Switch Phase												
Minimum Initial (s)		10.0		3.0			3.0	3.0				
Minimum Split (s)		16.0		9.0			9.0	9.0				

Lane Group	ø1	ø2	ø4
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	1	2	4
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0



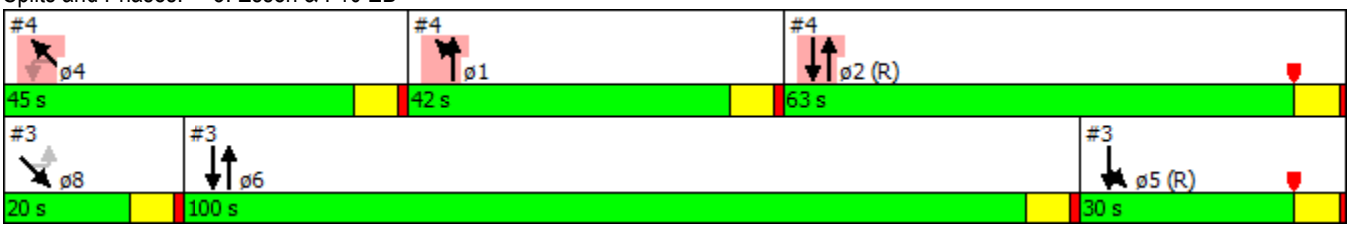
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Total Split (s)		100.0		30.0			20.0	20.0				
Total Split (%)		66.7%		20.0%			13.3%	13.3%				
Maximum Green (s)		94.0		24.0			14.0	14.0				
Yellow Time (s)		5.0		5.0			5.0	5.0				
All-Red Time (s)		1.0		1.0			1.0	1.0				
Lost Time Adjust (s)		0.0		0.0				0.0				
Total Lost Time (s)		6.0		6.0				6.0				
Lead/Lag		Lag					Lead	Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)		4.0		2.5			2.0	2.0				
Minimum Gap (s)		2.0		0.2			0.2	0.2				
Time Before Reduce (s)		10.0		0.0			0.0	0.0				
Time To Reduce (s)		20.0		0.0			0.0	0.0				
Recall Mode		Max		C-Max			Max	Max				
Act Effct Green (s)		94.0		24.0	124.0			14.0	150.0			
Actuated g/C Ratio		0.63		0.16	0.83			0.09	1.00			
v/c Ratio		0.52		0.48	0.53			0.35	0.95			
Control Delay		16.3		45.1	5.8			70.0	14.4			
Queue Delay		0.2		0.0	1.4			0.0	0.0			
Total Delay		16.5		45.1	7.2			70.0	14.4			
LOS		B		D	A			E	B			
Approach Delay		16.5			10.2			16.4				
Approach LOS		B			B			B				
Queue Length 50th (ft)		165		129	132			53	0			
Queue Length 95th (ft)		447		m168	m145			102	#93			
Internal Link Dist (ft)		641			329			932			1026	
Turn Bay Length (ft)												
Base Capacity (vph)		3128		283	2925			165	1583			
Starvation Cap Reductn		527		0	1103			0	0			
Spillback Cap Reductn		366		0	0			0	0			
Storage Cap Reductn		0		0	0			0	0			
Reduced v/c Ratio		0.63		0.48	0.84			0.35	0.95			

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 6 (4%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.04			
Intersection Signal Delay: 14.3		Intersection LOS: B	
Intersection Capacity Utilization 84.0%		ICU Level of Service E	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

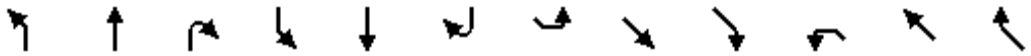
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Essen & I-10 EB



Lane Group	ø1	ø2	ø4
Total Split (s)	42.0	63.0	45.0
Total Split (%)	28%	42%	30%
Maximum Green (s)	36.0	57.0	39.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag		Lead
Lead-Lag Optimize?			
Vehicle Extension (s)	2.5	4.0	4.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	Max	C-Max	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	407	912	0	0	1100	44	0	0	0	438	0	744
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	450		200	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.994							0.850
Flt Protected	0.950										0.950	
Satd. Flow (prot)	1770	3539	0	0	5055	0	0	0	0	0	1770	1583
Flt Permitted	0.950										0.950	
Satd. Flow (perm)	1770	3539	0	0	5055	0	0	0	0	0	1770	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5							410
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		409			805			936			1390	
Travel Time (s)		6.2			12.2			21.3			31.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	442	991	0	0	1196	48	0	0	0	476	0	809
Shared Lane Traffic (%)												
Lane Group Flow (vph)	442	991	0	0	1244	0	0	0	0	0	476	809
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		20			20			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2					1	1	0
Detector Template										Left		
Leading Detector (ft)	45	290			290					20	45	0
Trailing Detector (ft)	-6	284			284					0	-6	0
Detector 1 Position(ft)	-6	-6			-6					0	-6	0
Detector 1 Size(ft)	51	51			51					20	51	20
Detector 1 Type	Cl+Ex	Call			Call					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA			NA					Perm	NA	Free
Protected Phases	1	1 2			2						4	
Permitted Phases										4		Free
Detector Phase	1	1 2			2					4	4	

Lane Group	ø5	ø6	ø8
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	5	6	8
Permitted Phases			
Detector Phase			

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0				10.0					3.0	3.0	
Minimum Split (s)	9.0				16.0					9.0	9.0	
Total Split (s)	42.0				63.0					45.0	45.0	
Total Split (%)	28.0%				42.0%					30.0%	30.0%	
Maximum Green (s)	36.0				57.0					39.0	39.0	
Yellow Time (s)	5.0				5.0					5.0	5.0	
All-Red Time (s)	1.0				1.0					1.0	1.0	
Lost Time Adjust (s)	0.0				0.0						0.0	
Total Lost Time (s)	6.0				6.0						6.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5				4.0					4.0	4.0	
Minimum Gap (s)	0.2				2.0					0.2	0.2	
Time Before Reduce (s)	0.0				10.0					0.0	0.0	
Time To Reduce (s)	0.0				20.0					0.0	0.0	
Recall Mode	Max				C-Max					Max	Max	
Act Effct Green (s)	36.0	99.0			57.0						39.0	150.0
Actuated g/C Ratio	0.24	0.66			0.38						0.26	1.00
v/c Ratio	1.04	0.42			0.65						1.03	0.51
Control Delay	107.0	11.8			34.3						104.3	1.2
Queue Delay	21.0	0.4			0.0						0.0	0.0
Total Delay	128.1	12.2			34.3						104.3	1.2
LOS	F	B			C						F	A
Approach Delay		48.0			34.3						39.4	
Approach LOS		D			C						D	
Queue Length 50th (ft)	~479	228			407						~499	0
Queue Length 95th (ft)	#704	492			461						#724	0
Internal Link Dist (ft)		329			725			856			1310	
Turn Bay Length (ft)												
Base Capacity (vph)	424	2335			1924						460	1583
Starvation Cap Reductn	27	757			0						0	0
Spillback Cap Reductn	0	49			0						0	22
Storage Cap Reductn	0	0			0						0	0
Reduced v/c Ratio	1.11	0.63			0.65						1.03	0.52

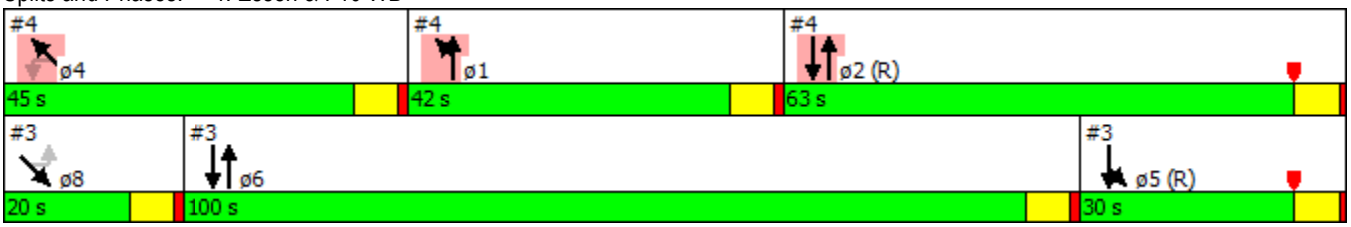
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 6 (4%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.04			
Intersection Signal Delay: 40.9		Intersection LOS: D	
Intersection Capacity Utilization 84.0%		ICU Level of Service E	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

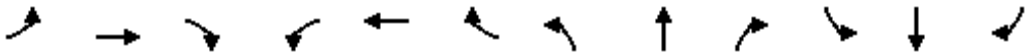
Lane Group	ø5	ø6	ø8
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	30.0	100.0	20.0
Total Split (%)	20%	67%	13%
Maximum Green (s)	24.0	94.0	14.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lead
Lead-Lag Optimize?			
Vehicle Extension (s)	2.5	4.0	2.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	C-Max	Max	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

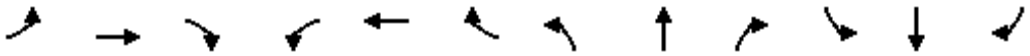
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Essen & I-10 WB





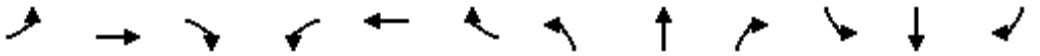
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	0	22	2	0	4	21	1547	14	39	2582	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		0	300		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91
Frt		0.850			0.910			0.999			0.996	
Flt Protected	0.950				0.984		0.950			0.950		
Satd. Flow (prot)	1770	1583	0	0	1668	0	1770	3536	0	1770	5065	0
Flt Permitted	0.754				0.880		0.033			0.121		
Satd. Flow (perm)	1405	1583	0	0	1492	0	61	3536	0	225	5065	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		97			65			1			5	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		456			896			891			199	
Travel Time (s)		10.4			20.4			13.5			3.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	0	24	2	0	4	23	1682	15	42	2807	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	20	24	0	0	6	0	23	1697	0	42	2883	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45		45	290		45	290	
Trailing Detector (ft)	-6	-6		0	-6		-6	284		-6	284	
Detector 1 Position(ft)	-6	-6		0	-6		-6	-6		-6	-6	
Detector 1 Size(ft)	51	51		20	51		51	51		51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		1	6		5	2	



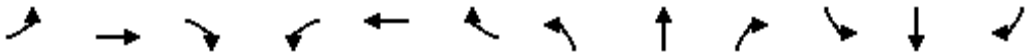
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	21.0		11.0	21.0	
Total Split (s)	35.0	35.0		35.0	35.0		15.0	100.0		15.0	100.0	
Total Split (%)	23.3%	23.3%		23.3%	23.3%		10.0%	66.7%		10.0%	66.7%	
Maximum Green (s)	29.0	29.0		29.0	29.0		9.0	94.0		9.0	94.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.5		2.0	2.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		Max	C-Min		None	Min	
Act Effct Green (s)	7.0	7.0			7.0		131.5	125.5		123.2	118.2	
Actuated g/C Ratio	0.05	0.05			0.05		0.88	0.84		0.82	0.79	
v/c Ratio	0.31	0.14			0.05		0.15	0.57		0.18	0.72	
Control Delay	80.5	1.8			0.7		7.6	4.8		2.4	5.9	
Queue Delay	0.0	0.0			0.0		0.0	0.1		0.0	0.5	
Total Delay	80.5	1.8			0.7		7.6	4.9		2.4	6.4	
LOS	F	A			A		A	A		A	A	
Approach Delay		37.6			0.7			4.9			6.3	
Approach LOS		D			A			A			A	
Queue Length 50th (ft)	19	0			0		1	103		2	426	
Queue Length 95th (ft)	48	0			0		m2	268		m2	622	
Internal Link Dist (ft)		376			816			811			119	
Turn Bay Length (ft)							150			300		
Base Capacity (vph)	271	384			340		156	2958		283	3992	
Starvation Cap Reductn	0	0			0		0	218		0	181	
Spillback Cap Reductn	0	0			0		0	0		0	571	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.07	0.06			0.02		0.15	0.62		0.15	0.84	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 88 (59%), Referenced to phase 6:NBTL, Start of Yellow			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 6.1		Intersection LOS: A	
Intersection Capacity Utilization 65.6%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Essen & Margaret Ann



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	5	88	5	42	0	1464	105	172	2598	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	100		0	150		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			150		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	0.91	0.91
Frt		0.865				0.850		0.990			0.999	
Flt Protected					0.955					0.950		
Satd. Flow (prot)	0	1611	0	0	1779	1583	0	5034	0	1770	5080	0
Flt Permitted					0.733					0.950		
Satd. Flow (perm)	0	1611	0	0	1365	1583	0	5034	0	1770	5080	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		65						16			3	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		496			1336			482			721	
Travel Time (s)		11.3			30.4			7.3			10.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	5	96	5	46	0	1591	114	187	2824	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	5	0	0	101	46	0	1705	0	187	2848	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45	45	45	290		45	290	
Trailing Detector (ft)	0	-6		0	-6	-6	0	284		-6	284	
Detector 1 Position(ft)	0	-6		0	-6	-6	0	-6		-6	-6	
Detector 1 Size(ft)	20	51		20	51	51	45	51		51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type		NA		Perm	NA	pt+ov		NA		Prot	NA	
Protected Phases		8			4	4 5		6		5	2	
Permitted Phases	8			4			6					
Detector Phase	8	8		4	4	4 5	6	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		15.0	15.0		3.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		21.0	21.0		9.0	21.0	
Total Split (s)	25.0	25.0		25.0	25.0		105.0	105.0		20.0	125.0	
Total Split (%)	16.7%	16.7%		16.7%	16.7%		70.0%	70.0%		13.3%	83.3%	
Maximum Green (s)	19.0	19.0		19.0	19.0		99.0	99.0		14.0	119.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0			6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		7.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		2.0	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		10.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		20.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		C-Min	C-Min		None	Min	
Act Effct Green (s)		14.9			14.9	34.9		103.1		14.0	123.1	
Actuated g/C Ratio		0.10			0.10	0.23		0.69		0.09	0.82	
v/c Ratio		0.02			0.75	0.12		0.49		1.13	0.68	
Control Delay		0.2			96.0	44.9		13.4		155.0	6.6	
Queue Delay		0.0			0.0	0.0		0.1		0.0	0.3	
Total Delay		0.2			96.0	44.9		13.5		155.0	7.0	
LOS		A			F	D		B		F	A	
Approach Delay		0.2			80.0			13.5			16.1	
Approach LOS		A			F			B			B	
Queue Length 50th (ft)		0			97	36		323		~214	342	
Queue Length 95th (ft)		0			162	70		245		m#310	291	
Internal Link Dist (ft)		416			1256			402			641	
Turn Bay Length (ft)						100				150		
Base Capacity (vph)		260			172	351		3464		165	4168	
Starvation Cap Reductn		0			0	0		513		0	623	
Spillback Cap Reductn		0			0	0		0		0	111	
Storage Cap Reductn		0			0	0		0		0	0	
Reduced v/c Ratio		0.02			0.59	0.13		0.58		1.13	0.80	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 104 (69%), Referenced to phase 6:NBTL, Start of Yellow			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.13			
Intersection Signal Delay: 17.1		Intersection LOS: B	
Intersection Capacity Utilization 108.1%		ICU Level of Service G	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Essen & Essen Park

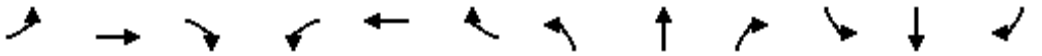
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	174	174	1488	668	335	970
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		0	150	
Storage Lanes	2	1		0	1	
Taper Length (ft)	25				100	
Lane Util. Factor	0.97	1.00	0.91	0.91	1.00	0.95
Frt		0.850	0.954			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	4851	0	1770	3539
Flt Permitted	0.950				0.042	
Satd. Flow (perm)	3433	1583	4851	0	78	3539
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			128			
Link Speed (mph)	30		45			45
Link Distance (ft)	1306		805			993
Travel Time (s)	29.7		12.2			15.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	189	189	1617	726	364	1054
Shared Lane Traffic (%)						
Lane Group Flow (vph)	189	189	2343	0	364	1054
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	52		20			25
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2		1	2
Detector Template						
Leading Detector (ft)	45	45	290		45	290
Trailing Detector (ft)	-6	-6	284		-6	284
Detector 1 Position(ft)	-6	-6	-6		-6	-6
Detector 1 Size(ft)	51	51	51		51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			284			284
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	pt+ov	NA		pm+pt	NA
Protected Phases	4	4 5	6		5	2
Permitted Phases					2	
Detector Phase	4	4 5	6		5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	3.0		15.0		5.0	15.0
Minimum Split (s)	9.0		21.0		11.0	21.0
Total Split (s)	21.0		93.0		36.0	129.0
Total Split (%)	14.0%		62.0%		24.0%	86.0%
Maximum Green (s)	15.0		87.0		30.0	123.0
Yellow Time (s)	5.0		5.0		5.0	5.0
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	6.0		6.0		6.0	6.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0		5.0		2.0	5.0
Minimum Gap (s)	0.2		3.0		0.2	3.0
Time Before Reduce (s)	0.0		15.0		0.0	15.0
Time To Reduce (s)	0.0		15.0		0.0	15.0
Recall Mode	None		C-Min		None	Min
Act Effct Green (s)	12.5	48.0	90.0		125.5	125.5
Actuated g/C Ratio	0.08	0.32	0.60		0.84	0.84
v/c Ratio	0.66	0.37	0.79		0.91	0.36
Control Delay	78.0	41.3	17.4		83.9	1.4
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	78.0	41.3	17.4		83.9	1.4
LOS	E	D	B		F	A
Approach Delay	59.6		17.4			22.6
Approach LOS	E		B			C
Queue Length 50th (ft)	93	142	332		321	13
Queue Length 95th (ft)	135	210	715		#497	32
Internal Link Dist (ft)	1226		725			913
Turn Bay Length (ft)		100			150	
Base Capacity (vph)	343	525	2961		403	2961
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.55	0.36	0.79		0.90	0.36

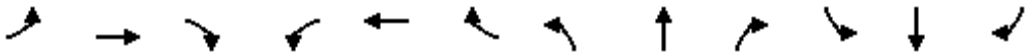
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 0 (0%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 23.0		Intersection LOS: C	
Intersection Capacity Utilization 82.2%		ICU Level of Service E	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 17: Essen & United Plaza South



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	307	30	20	58	120	185	104	1090	51	176	1279	1151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	425		0	0		280	150		0	550		300
Storage Lanes	1		1	0		1	1		0	1		1
Taper Length (ft)	100			200			25			100		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	1.00
Frt			0.850			0.850		0.993				0.850
Flt Protected	0.950	0.961			0.984		0.950			0.950		
Satd. Flow (prot)	1681	1701	1583	0	1833	1583	1770	3514	0	1770	5085	1583
Flt Permitted	0.950	0.961			0.984		0.146			0.099		
Satd. Flow (perm)	1681	1701	1583	0	1833	1583	272	3514	0	184	5085	1583
Right Turn on Red			Yes			No			Yes			No
Satd. Flow (RTOR)			156					4				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1908			1396			1335			891	
Travel Time (s)		43.4			31.7			20.2			13.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	334	33	22	63	130	201	113	1185	55	191	1390	1251
Shared Lane Traffic (%)	45%											
Lane Group Flow (vph)	184	183	22	0	193	201	113	1240	0	191	1390	1251
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		45			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	0	1	1	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	0	45	45	45	45	290		45	290	0
Trailing Detector (ft)	-6	-6	0	0	-6	-6	-6	284		-6	284	0
Detector 1 Position(ft)	-6	-6	0	0	-6	-6	-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	20	45	51	51	51	51		51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Call
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	Perm	Split	NA	pt+ov	pm+pt	NA		pm+pt	NA	pt+ov
Protected Phases	8	8		4	4	4 5	1	6		5	2	2 8
Permitted Phases			8				6			2		
Detector Phase	8	8	8	4	4	4 5	1	6		5	2	2 8

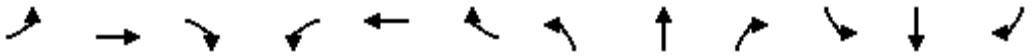


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.5	14.5	14.5	14.5	14.5		9.0	21.0		9.0	21.0	
Total Split (s)	25.0	25.0	25.0	31.0	31.0		12.0	72.0		22.0	82.0	
Total Split (%)	16.7%	16.7%	16.7%	20.7%	20.7%		8.0%	48.0%		14.7%	54.7%	
Maximum Green (s)	18.5	18.5	18.5	24.5	24.5		6.0	66.0		16.0	76.0	
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5	6.5		6.5		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		2.0	2.0		2.0	2.5	
Minimum Gap (s)	0.2	0.2	0.2	0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None	None	None	None		None	C-Min		None	Min	
Act Effct Green (s)	18.5	18.5	18.5		20.8	40.1	78.4	72.4		90.9	79.7	104.7
Actuated g/C Ratio	0.12	0.12	0.12		0.14	0.27	0.52	0.48		0.61	0.53	0.70
v/c Ratio	0.89	0.88	0.07		0.76	0.48	0.56	0.73		0.76	0.51	1.13
Control Delay	103.2	100.8	0.4		81.1	49.0	24.7	22.0		42.5	15.9	98.1
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.9
Total Delay	103.2	100.8	0.4		81.1	49.0	24.7	22.0		42.5	15.9	98.9
LOS	F	F	A		F	D	C	C		D	B	F
Approach Delay		96.3			64.7			22.3			54.4	
Approach LOS		F			E			C			D	
Queue Length 50th (ft)	189	188	0		184	163	30	258		76	286	~1463
Queue Length 95th (ft)	#342	#337	0		269	234	m71	256		m157	240	#1770
Internal Link Dist (ft)		1828			1316			1255			811	
Turn Bay Length (ft)	425					280	150			550		300
Base Capacity (vph)	207	209	331		299	429	202	1698		281	2702	1105
Starvation Cap Reductn	0	0	0		0	0	0	0		0	0	181
Spillback Cap Reductn	0	0	0		0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0		0	0	0
Reduced v/c Ratio	0.89	0.88	0.07		0.65	0.47	0.56	0.73		0.68	0.51	1.35

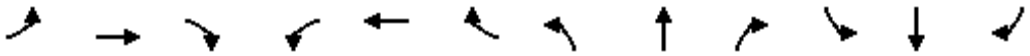
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 62 (41%), Referenced to phase 6:NBTL, Start of Yellow			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.13			
Intersection Signal Delay: 49.7		Intersection LOS: D	
Intersection Capacity Utilization 102.0%		ICU Level of Service G	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Essen & Hennessy/Summa



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	69	46	64	52	187	24	190	1152	91	70	1033	254
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	150		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91
Frt		0.912			0.983			0.989			0.970	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1699	0	1770	1831	0	1770	3500	0	1770	4933	0
Flt Permitted	0.258			0.561			0.142			0.177		
Satd. Flow (perm)	481	1699	0	1045	1831	0	265	3500	0	330	4933	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42			4			10			75	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1062			1416			1475			1335	
Travel Time (s)		24.1			32.2			22.3			20.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	75	50	70	57	203	26	207	1252	99	76	1123	276
Shared Lane Traffic (%)												
Lane Group Flow (vph)	75	120	0	57	229	0	207	1351	0	76	1399	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template												
Leading Detector (ft)	45	45		45	45		45	290		45	290	
Trailing Detector (ft)	-6	-6		-6	-6		-6	284		-6	284	
Detector 1 Position(ft)	-6	-6		-6	-6		-6	-6		-6	-6	
Detector 1 Size(ft)	51	51		51	51		51	51		51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		1	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		2.0	15.0		3.0	15.0	
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	21.0		9.0	21.0	
Total Split (s)	35.0	35.0		35.0	35.0		15.0	100.0		15.0	100.0	
Total Split (%)	23.3%	23.3%		23.3%	23.3%		10.0%	66.7%		10.0%	66.7%	
Maximum Green (s)	30.0	30.0		30.0	30.0		9.0	94.0		9.0	94.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Act Effct Green (s)	23.2	23.2		23.2	23.2		100.8	100.8		100.8	100.8	
Actuated g/C Ratio	0.15	0.15		0.15	0.15		0.67	0.67		0.67	0.67	
v/c Ratio	1.01	0.40		0.35	0.80		0.77	0.57		0.25	0.42	
Control Delay	168.4	39.5		61.2	79.9		31.1	14.8		3.7	1.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	168.4	39.5		61.2	79.9		31.1	14.8		3.7	1.3	
LOS	F	D		E	E		C	B		A	A	
Approach Delay		89.1			76.2			17.0			1.5	
Approach LOS		F			E			B			A	
Queue Length 50th (ft)	74	69		51	215		71	346		4	19	
Queue Length 95th (ft)	#168	127		93	299		#160	466		m10	19	
Internal Link Dist (ft)		982			1336			1395			1255	
Turn Bay Length (ft)	225			150			150			150		
Base Capacity (vph)	96	373		209	369		268	2355		308	3339	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.78	0.32		0.27	0.62		0.77	0.57		0.25	0.42	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 83 (55%), Referenced to phase 6:NBTL, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.01			
Intersection Signal Delay: 19.3		Intersection LOS: B	
Intersection Capacity Utilization 72.1%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Essen & Picardy

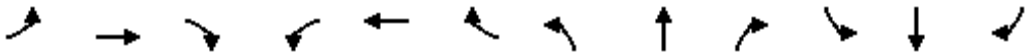
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	24	28	1783	182	360	1325
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	125		125	125	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.88	0.91	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2787	5085	1583	1770	3539
Flt Permitted	0.950				0.059	
Satd. Flow (perm)	1770	2787	5085	1583	110	3539
Right Turn on Red		Yes		No		
Satd. Flow (RTOR)		30				
Link Speed (mph)	30		45			45
Link Distance (ft)	1179		993			571
Travel Time (s)	26.8		15.0			8.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	30	1938	198	391	1440
Shared Lane Traffic (%)						
Lane Group Flow (vph)	26	30	1938	198	391	1440
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	42		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template						
Leading Detector (ft)	45	45	290	45	45	290
Trailing Detector (ft)	-6	-6	284	-6	-6	284
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			284			284
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	pt+ov	pm+pt	NA
Protected Phases	4		6	4 6	5	2
Permitted Phases		4			2	
Detector Phase	4	4	6	4 6	5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	5.0	5.0	15.0		3.0	15.0
Minimum Split (s)	11.0	11.0	21.0		9.0	21.0
Total Split (s)	21.0	21.0	104.0		25.0	129.0
Total Split (%)	14.0%	14.0%	69.3%		16.7%	86.0%
Maximum Green (s)	15.0	15.0	98.0		19.0	123.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0
Recall Mode	None	None	C-Min		None	Min
Act Effct Green (s)	7.0	7.0	88.7	101.7	131.0	131.0
Actuated g/C Ratio	0.05	0.05	0.59	0.68	0.87	0.87
v/c Ratio	0.32	0.19	0.64	0.18	0.79	0.47
Control Delay	78.4	23.5	13.5	5.3	52.0	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.3
Total Delay	78.4	23.5	13.6	5.3	52.0	6.8
LOS	E	C	B	A	D	A
Approach Delay	49.0		12.8			16.4
Approach LOS	D		B			B
Queue Length 50th (ft)	25	0	480	54	328	362
Queue Length 95th (ft)	58	19	138	m18	#569	391
Internal Link Dist (ft)	1099		913			491
Turn Bay Length (ft)		125		125	125	
Base Capacity (vph)	177	305	3322	1167	497	3090
Starvation Cap Reductn	0	0	0	0	0	902
Spillback Cap Reductn	0	0	32	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.10	0.59	0.17	0.79	0.66

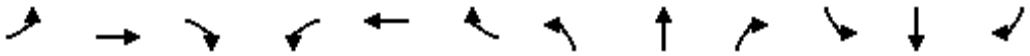
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 24 (16%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 14.9		Intersection LOS: B	
Intersection Capacity Utilization 73.6%		ICU Level of Service D	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 28: Essen & United Plaza North



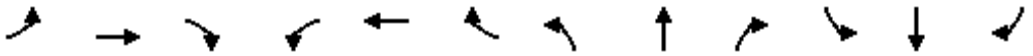
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	2	20	27	0	31	16	1682	113	349	1638	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		100	175		0	150		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	0.95
Frt		0.862				0.850		0.991			0.998	
Flt Protected	0.950				0.950		0.950			0.950		
Satd. Flow (prot)	1770	1606	0	0	1770	1583	1770	5040	0	1770	3532	0
Flt Permitted	0.738				0.742		0.127			0.063		
Satd. Flow (perm)	1375	1606	0	0	1382	1583	237	5040	0	117	3532	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		22						13			2	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		757			843			571			472	
Travel Time (s)		17.2			19.2			8.7			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	2	22	29	0	34	17	1828	123	379	1780	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	24	0	0	29	34	17	1951	0	379	1802	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290		45	390	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284		-6	384	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6		-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51		51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			384	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		8		7	4	4 5	1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4	4 5	1	6		5	2	



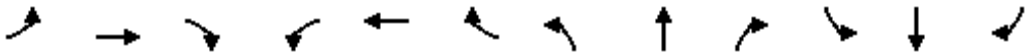
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	31.0		11.0	31.0	
Total Split (s)	18.0	18.0		18.0	36.0		14.0	100.0		14.0	100.0	
Total Split (%)	12.0%	12.0%		12.0%	24.0%		9.3%	66.7%		9.3%	66.7%	
Maximum Green (s)	12.0	12.0		12.0	30.0		8.0	94.0		8.0	94.0	
Yellow Time (s)	4.5	4.5		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		2.0	2.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lead		Lag			Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	3.0		0.2	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	9.5	9.5			9.5	68.1	69.9	69.9		123.1	124.3	
Actuated g/C Ratio	0.06	0.06			0.06	0.45	0.47	0.47		0.82	0.83	
v/c Ratio	0.52	0.20			0.33	0.05	0.09	0.83		0.54	0.62	
Control Delay	87.6	28.6			75.9	25.3	18.5	18.2		38.4	8.9	
Queue Delay	22.6	0.0			0.0	0.0	0.0	0.5		0.0	7.6	
Total Delay	110.2	28.6			75.9	25.3	18.5	18.7		38.4	16.4	
LOS	F	C			E	C	B	B		D	B	
Approach Delay		81.8			48.6			18.7			20.3	
Approach LOS		F			D			B			C	
Queue Length 50th (ft)	43	2			28	20	3	146		305	410	
Queue Length 95th (ft)	86	32			62	41	m11	288		m358	513	
Internal Link Dist (ft)		677			763			491			392	
Turn Bay Length (ft)	75					100	175			150		
Base Capacity (vph)	114	152			276	718	219	3163		699	2927	
Starvation Cap Reductn	0	0			0	0	0	0		0	1090	
Spillback Cap Reductn	56	0			0	64	0	641		0	40	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.78	0.16			0.11	0.05	0.08	0.77		0.54	0.98	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 2 (1%), Referenced to phase 2:SBTL, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 20.9		Intersection LOS: C	
Intersection Capacity Utilization 78.3%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 29: Essen & Sholar/Archives



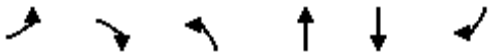
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	363	0	284	0	0	0	0	1192	562	0	1723	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.867							0.850			
Flt Protected	0.950	0.994										
Satd. Flow (prot)	1681	1525	0	0	0	0	0	3539	1583	0	3539	0
Flt Permitted	0.950	0.994										
Satd. Flow (perm)	1681	1525	0	0	0	0	0	3539	1583	0	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		58							473			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		995			508			472			1384	
Travel Time (s)		22.6			11.5			7.2			21.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	395	0	309	0	0	0	0	1296	611	0	1873	0
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	355	349	0	0	0	0	0	1296	611	0	1873	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1						2	1		2	
Detector Template												
Leading Detector (ft)	45	45						290	45		290	
Trailing Detector (ft)	-6	-6						284	-6		284	
Detector 1 Position(ft)	-6	-6						-6	-6		-6	
Detector 1 Size(ft)	51	51						51	51		51	
Detector 1 Type	Cl+Ex	Cl+Ex						Call	Cl+Ex		Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0		0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA						NA	Free		NA	
Protected Phases		8						6			2	
Permitted Phases	8								Free			
Detector Phase	8	8						6			2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	10.0	10.0						25.0			25.0	
Minimum Split (s)	17.0	17.0						32.0			32.0	
Total Split (s)	25.0	25.0						50.0			50.0	
Total Split (%)	33.3%	33.3%						66.7%			66.7%	
Maximum Green (s)	18.0	18.0						43.0			43.0	
Yellow Time (s)	5.0	5.0						5.0			5.0	
All-Red Time (s)	2.0	2.0						2.0			2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	7.0	7.0						7.0			7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5						5.0			5.0	
Minimum Gap (s)	0.2	0.2						3.0			3.0	
Time Before Reduce (s)	0.0	0.0						15.0			15.0	
Time To Reduce (s)	0.0	0.0						15.0			15.0	
Recall Mode	None	None						C-Max			Max	
Act Effct Green (s)	17.5	17.5						43.5	75.0		43.5	
Actuated g/C Ratio	0.23	0.23						0.58	1.00		0.58	
v/c Ratio	0.91	0.87						0.63	0.39		0.91	
Control Delay	57.4	47.2						21.2	0.9		22.9	
Queue Delay	0.0	11.8						0.4	0.0		3.6	
Total Delay	57.4	59.0						21.6	0.9		26.5	
LOS	E	E						C	A		C	
Approach Delay		58.2						15.0			26.5	
Approach LOS		E						B			C	
Queue Length 50th (ft)	167	137						509	0		378	
Queue Length 95th (ft)	#323	#291						476	0		#578	
Internal Link Dist (ft)		915			428			392			1304	
Turn Bay Length (ft)	400											
Base Capacity (vph)	403	410						2053	1583		2053	
Starvation Cap Reductn	0	0						303	0		0	
Spillback Cap Reductn	0	48						0	0		122	
Storage Cap Reductn	0	0						0	0		0	
Reduced v/c Ratio	0.88	0.96						0.74	0.39		0.97	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 22 (29%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 26.6		Intersection LOS: C	
Intersection Capacity Utilization 78.0%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

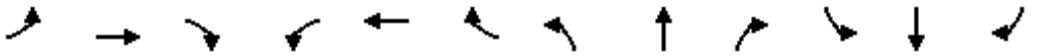
Splits and Phases: 32: Essen & I-12 EB



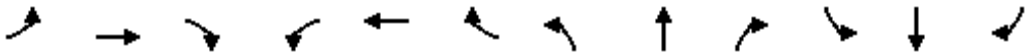
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	17	21	17	1552	2670	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	50			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.91	0.91
Frt		0.850			0.999	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	5080	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	3539	5080	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	401			199	482	
Travel Time (s)	9.1			3.0	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	23	18	1687	2902	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	18	23	18	1687	2925	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 62.1%		ICU Level of Service B	
Analysis Period (min) 15			

M.2 2015 EXISTING AM – BLUEBONNET BOULEVARD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	148	748	40	355	849	152	227	1261	239	212	901	239
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		250	325		375	350		0	250		150
Storage Lanes	2		1	2		1	2		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Frt			0.850			0.850		0.976				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3454	0	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3454	0	3433	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								16				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		2445			3864			2201			709	
Travel Time (s)		37.0			58.5			33.3			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	156	787	42	374	894	160	239	1327	252	223	948	252
Shared Lane Traffic (%)												
Lane Group Flow (vph)	156	787	42	374	894	160	239	1579	0	223	948	252
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45	45	290		45	290	45
Trailing Detector (ft)	-6	284	-6	-6	284	-6	-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6	-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51	51	51		51	51	51
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		284			284			284			284	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Extend			Extend			Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8		7	4	4 5
Permitted Phases												
Detector Phase	5	2	2 3	1	6	6 7	3	8		7	4	4 5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	10.0		4.0	10.0	
Minimum Split (s)	11.0	34.5		11.0	37.5		11.0	41.0		11.0	41.0	
Total Split (s)	20.0	49.0		20.0	49.0		35.0	78.0		23.0	66.0	
Total Split (%)	11.8%	28.8%		11.8%	28.8%		20.6%	45.9%		13.5%	38.8%	
Maximum Green (s)	13.0	42.5		13.0	42.5		28.0	71.0		16.0	59.0	
Yellow Time (s)	5.0	4.5		5.0	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	6.5		7.0	6.5		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.3		3.0	4.3		3.0	3.9		3.0	3.9	
Minimum Gap (s)	0.2	2.2		0.2	2.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	15.0		0.0	15.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0		0.0	10.0		0.0	10.0	
Recall Mode	None	Min		None	Min		None	Min		None	C-Min	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		23.0			26.0			29.0			29.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	12.8	42.5	79.5	13.0	42.7	64.6	36.5	72.1		14.9	50.5	63.4
Actuated g/C Ratio	0.08	0.25	0.47	0.08	0.25	0.38	0.21	0.42		0.09	0.30	0.37
v/c Ratio	0.60	0.89	0.06	1.43	1.01	0.27	0.32	1.07		0.74	0.90	0.43
Control Delay	86.4	74.5	16.4	264.1	94.0	37.6	59.4	91.0		98.6	55.3	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.6		0.0	0.1	0.0
Total Delay	86.4	74.5	16.4	264.1	94.0	38.4	59.4	91.6		98.6	55.5	14.7
LOS	F	E	B	F	F	D	E	F		F	E	B
Approach Delay		73.9			132.3			87.3			55.0	
Approach LOS		E			F			F			E	
Queue Length 50th (ft)	88	449	18	~288	~538	122	117	~1031		111	538	88
Queue Length 95th (ft)	130	#554	40	#400	#686	184	171	#1170		184	391	102
Internal Link Dist (ft)		2365			3784			2121			629	
Turn Bay Length (ft)	440		250	325		375	350			250		150
Base Capacity (vph)	262	884	739	262	888	611	736	1473		323	1228	670
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	19	0
Spillback Cap Reductn	0	0	0	0	0	242	0	2		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.60	0.89	0.06	1.43	1.01	0.43	0.32	1.07		0.69	0.78	0.38

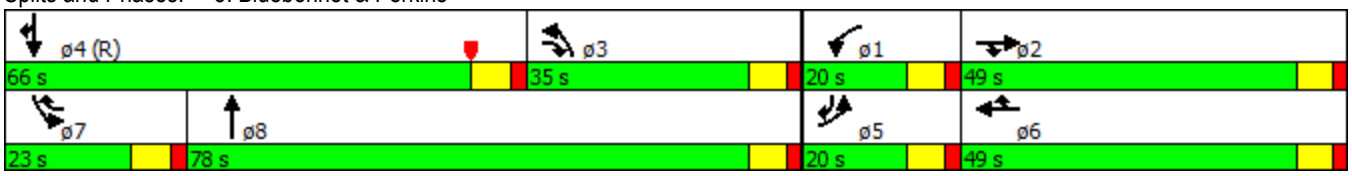
Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 0 (0%), Referenced to phase 4:SBT, Start of Yellow			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.43			
Intersection Signal Delay: 88.2		Intersection LOS: F	
Intersection Capacity Utilization 102.2%		ICU Level of Service G	

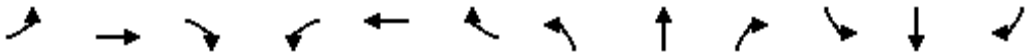
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

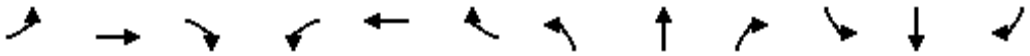
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Bluebonnet & Perkins





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	66	17	26	26	3	24	44	1439	78	371	1300	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		125	160		160	175		0
Storage Lanes	1		0	0		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.910				0.850			0.850		0.993	
Flt Protected	0.950				0.957		0.950			0.950		
Satd. Flow (prot)	1770	1695	0	0	1783	1583	1770	3539	1583	3433	3514	0
Flt Permitted	0.738				0.763		0.950			0.950		
Satd. Flow (perm)	1375	1695	0	0	1421	1583	1770	3539	1583	3433	3514	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		27									8	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		511			1048			709			2556	
Travel Time (s)		11.6			23.8			10.7			38.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	69	18	27	27	3	25	46	1515	82	391	1368	67
Shared Lane Traffic (%)												
Lane Group Flow (vph)	69	45	0	0	30	25	46	1515	82	391	1435	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290	45	45	290	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284	-6	-6	284	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6	-6	-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	
Protected Phases		8		7	4	4 5	1	6	6 7	5	2	
Permitted Phases	8			4								
Detector Phase	8	8		7	4	4 5	1	6	6 7	5	2	



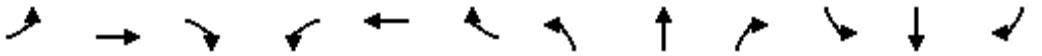
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		3.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	11.0	11.0		9.0	11.0		9.0	21.0		9.0	21.0	
Total Split (s)	18.0	18.0		11.0	29.0		11.0	120.0		21.0	130.0	
Total Split (%)	10.6%	10.6%		6.5%	17.1%		6.5%	70.6%		12.4%	76.5%	
Maximum Green (s)	12.0	12.0		5.0	23.0		5.0	114.0		15.0	124.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lead		Lag			Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		1.5	2.0		1.5	4.0		1.5	4.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	12.2	12.2			24.7	59.5	8.1	98.5	111.0	28.8	119.2	
Actuated g/C Ratio	0.07	0.07			0.15	0.35	0.05	0.58	0.65	0.17	0.70	
v/c Ratio	0.70	0.31			0.14	0.05	0.55	0.74	0.08	0.67	0.58	
Control Delay	110.3	42.3			64.3	40.3	77.6	38.2	16.3	71.4	14.2	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.7	0.0	0.0	0.0	
Total Delay	110.3	42.3			64.3	40.3	77.6	38.9	16.3	71.4	14.2	
LOS	F	D			E	D	E	D	B	E	B	
Approach Delay		83.5			53.4			38.8			26.4	
Approach LOS		F			D			D			C	
Queue Length 50th (ft)	76	19			29	18	51	681	59	213	431	
Queue Length 95th (ft)	#163	65			65	49	m59	m164	m17	#398	403	
Internal Link Dist (ft)		431			968			629			2476	
Turn Bay Length (ft)	100					125	160		160	175		
Base Capacity (vph)	106	155			226	560	84	2373	1177	581	2576	
Starvation Cap Reductn	0	0			0	0	0	462	0	0	0	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.65	0.29			0.13	0.04	0.55	0.79	0.07	0.67	0.56	

Intersection Summary

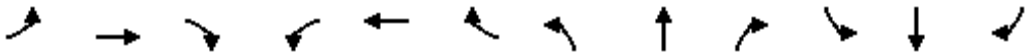
Area Type: Other
Cycle Length: 170
Actuated Cycle Length: 170
Offset: 50 (29%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 34.2 Intersection LOS: C
Intersection Capacity Utilization 75.7% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Bluebonnet & Park Rowe



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	162	8	42	17	4	28	65	1457	7	63	1676	447
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	475		475	50		0	425		0	130		130
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.868			0.999				0.850
Flt Protected	0.950	0.956		0.950			0.950			0.950		
Satd. Flow (prot)	1681	1692	1583	1770	1617	0	1770	3536	0	1770	3539	1583
Flt Permitted	0.950	0.956		0.950			0.950			0.950		
Satd. Flow (perm)	1681	1692	1583	1770	1617	0	1770	3536	0	1770	3539	1583
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)					29			1				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1004			740			2556			469	
Travel Time (s)		22.8			16.8			38.7			7.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	171	8	44	18	4	29	68	1534	7	66	1764	471
Shared Lane Traffic (%)	48%											
Lane Group Flow (vph)	89	90	44	18	33	0	68	1541	0	66	1764	471
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	45	45	45		45	290		45	290	45
Trailing Detector (ft)	-6	-6	-6	-6	-6		-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6		-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51		51	51		51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA		Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4		1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4		1	6		5	2	2 8

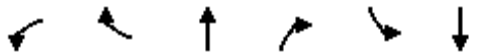


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.5	25.5		8.5	25.5	
Total Split (s)	15.5	15.5		15.0	15.0		14.0	71.0		13.5	70.5	
Total Split (%)	13.5%	13.5%		13.0%	13.0%		12.2%	61.7%		11.7%	61.3%	
Maximum Green (s)	10.5	10.5		10.0	10.0		8.5	65.5		8.0	65.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	6.0		3.0	6.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	11.2	11.2	24.7	8.8	8.8		8.0	71.5		9.9	73.5	87.5
Actuated g/C Ratio	0.10	0.10	0.21	0.08	0.08		0.07	0.62		0.09	0.64	0.76
v/c Ratio	0.55	0.55	0.13	0.13	0.22		0.55	0.70		0.43	0.78	0.39
Control Delay	62.7	62.8	37.4	51.4	23.3		68.9	18.8		45.5	10.4	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	62.7	62.8	37.4	51.4	23.3		68.9	18.8		45.5	10.4	3.0
LOS	E	E	D	D	C		E	B		D	B	A
Approach Delay		57.7			33.2			21.0			9.9	
Approach LOS		E			C			C			A	
Queue Length 50th (ft)	67	67	26	13	3		49	437		46	204	67
Queue Length 95th (ft)	#131	#132	59	36	34		98	527		m#92	264	73
Internal Link Dist (ft)		924			660			2476			389	
Turn Bay Length (ft)	475		475	50			425			130		130
Base Capacity (vph)	167	168	337	153	167		130	2201		158	2260	1192
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.53	0.54	0.13	0.12	0.20		0.52	0.70		0.42	0.78	0.40

Intersection Summary

Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 115
Offset: 77 (67%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 17.0 Intersection LOS: B
Intersection Capacity Utilization 74.1% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Bluebonnet & Anselmo



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Lane Configurations									
Volume (vph)	150	48	1568	79	58	2036			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	0	100		150	350				
Storage Lanes	2	1		1	1				
Taper Length (ft)	25				25				
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.91			
Frt		0.850		0.850					
Flt Protected	0.950				0.950				
Satd. Flow (prot)	3433	1583	3539	1583	1770	5085			
Flt Permitted	0.950				0.950				
Satd. Flow (perm)	3433	1583	3539	1583	1770	5085			
Right Turn on Red		No		No					
Satd. Flow (RTOR)									
Link Speed (mph)	30		45			45			
Link Distance (ft)	352		390			974			
Travel Time (s)	8.0		5.9			14.8			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95			
Adj. Flow (vph)	158	51	1651	83	61	2143			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	158	51	1651	83	61	2143			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Right	Left	Left			
Median Width(ft)	35		20			20			
Link Offset(ft)	0		0			0			
Crosswalk Width(ft)	16		16			16			
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Turning Speed (mph)	15	9		9	15				
Number of Detectors	1	1	2	1	1	2			
Detector Template									
Leading Detector (ft)	45	45	290	45	45	290			
Trailing Detector (ft)	-6	-6	284	-6	-6	284			
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			
Detector 1 Size(ft)	51	51	51	51	51	51			
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call			
Detector 1 Channel									
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)			284			284			
Detector 2 Size(ft)			6			6			
Detector 2 Type			Extend			Extend			
Detector 2 Channel									
Detector 2 Extend (s)			0.0			0.0			
Turn Type	Prot	pt+ov	NA	pt+ov	Prot	NA			
Protected Phases	4	4 3	1	1 4	3	2	5	7	8
Permitted Phases									
Detector Phase	4	4 3	1	1 4	3	2			

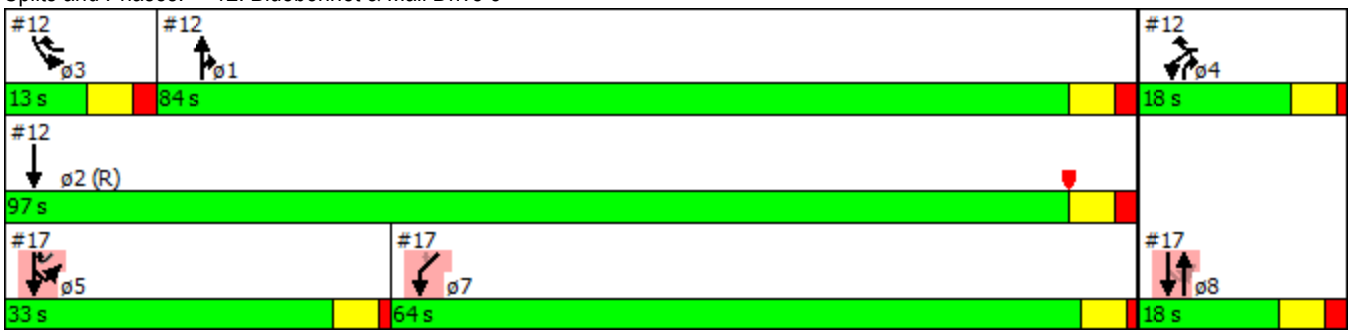
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Switch Phase									
Minimum Initial (s)	4.0		24.0		4.0	34.0	4.0	4.0	34.0
Minimum Split (s)	10.0		30.0		10.0	40.0	10.0	21.0	40.0
Total Split (s)	18.0		84.0		13.0	97.0	33.0	64.0	18.0
Total Split (%)	15.7%		73.0%		11.3%	84.3%	29%	56%	16%
Maximum Green (s)	13.0		78.0		7.0	91.0	28.0	59.0	12.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		2.0		2.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0			
Total Lost Time (s)	5.0		6.0		6.0	6.0			
Lead/Lag			Lag		Lead		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	
Vehicle Extension (s)	2.5		4.3		2.0	4.3	2.5	3.0	4.3
Minimum Gap (s)	0.2		2.2		0.2	2.2	0.2	3.0	2.2
Time Before Reduce (s)	0.0		20.0		0.0	30.0	0.0	0.0	30.0
Time To Reduce (s)	0.0		15.0		0.0	15.0	0.0	0.0	15.0
Recall Mode	None		Min		None	C-Min	None	None	Min
Walk Time (s)								5.0	
Flash Dont Walk (s)								11.0	
Pedestrian Calls (#/hr)								0	
Act Effct Green (s)	25.9	38.6	67.7	99.8	6.7	78.1			
Actuated g/C Ratio	0.23	0.34	0.59	0.87	0.06	0.68			
v/c Ratio	0.20	0.10	0.79	0.06	0.60	0.62			
Control Delay	26.7	15.7	8.6	0.6	78.4	6.4			
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay	26.7	15.7	8.7	0.6	78.4	6.4			
LOS	C	B	A	A	E	A			
Approach Delay	24.0		8.3			8.4			
Approach LOS	C		A			A			
Queue Length 50th (ft)	37	20	135	3	47	109			
Queue Length 95th (ft)	76	47	38	m1	m69	9			
Internal Link Dist (ft)	272		310			894			
Turn Bay Length (ft)		100		150	350				
Base Capacity (vph)	773	535	2400	1370	108	4023			
Starvation Cap Reductn	0	0	47	0	0	0			
Spillback Cap Reductn	0	0	0	0	0	0			
Storage Cap Reductn	0	0	0	0	0	0			
Reduced v/c Ratio	0.20	0.10	0.70	0.06	0.56	0.53			

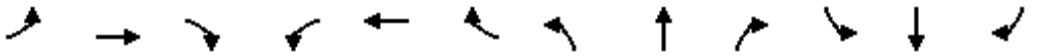
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 94 (82%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 9.1		Intersection LOS: A	
Intersection Capacity Utilization 61.6%		ICU Level of Service B	

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

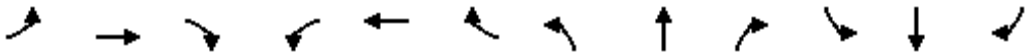
Splits and Phases: 12: Bluebonnet & Mall Drive 3





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	391	8	275	64	152	2	242	1370	4	45	1754	971
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	140		140	200		200	200		160
Storage Lanes	2		0	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		0.854				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3022	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3022	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		272										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1050			403			974			1065	
Travel Time (s)		23.9			9.2			14.8			16.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	412	8	289	67	160	2	255	1442	4	47	1846	1022
Shared Lane Traffic (%)												
Lane Group Flow (vph)	412	297	0	67	160	2	255	1442	4	47	1846	1022
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			36			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pt+ov
Protected Phases	3	2		9	8	8 6	1	10	10 9	6	5	5 3
Permitted Phases												
Detector Phase	3	2		9	8	8 6	1	10	10 9	6	5	5 3

Lane Group	ø11	ø12	ø13	ø14
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	11	12	13	14
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	21.0		3.0	21.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		11.0	27.0		11.0	27.0	
Total Split (s)	17.0	17.0		12.0	12.0		22.0	73.0		13.0	64.0	
Total Split (%)	14.8%	14.8%		10.4%	10.4%		19.1%	63.5%		11.3%	55.7%	
Maximum Green (s)	11.0	11.0		6.0	6.0		16.0	67.0		7.0	58.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.0		1.0	1.0		3.0	4.3		1.0	4.3	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	28.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	15.0	
Recall Mode	None	None		None	None		None	None		None	C-Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	11.0	11.0		5.6	6.0	27.7	16.0	57.9	69.5	22.9	58.0	75.0
Actuated g/C Ratio	0.10	0.10		0.05	0.05	0.24	0.14	0.50	0.60	0.20	0.50	0.65
v/c Ratio	1.26	0.56		0.40	0.87	0.01	1.04	0.56	0.00	0.07	0.72	0.99
Control Delay	180.5	12.4		65.4	97.1	56.5	98.4	12.7	0.8	63.1	14.7	35.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	180.5	12.4		65.4	97.1	56.5	98.4	12.7	0.8	63.1	14.7	35.7
LOS	F	B		E	F	E	F	B	A	E	B	D
Approach Delay		110.1			87.5			25.5			22.8	
Approach LOS		F			F			C			C	
Queue Length 50th (ft)	~196	8		27	66	1	~211	12	0	19	174	285
Queue Length 95th (ft)	#297	51		52	#131	m8	#373	38	m0	m29	217	#1017
Internal Link Dist (ft)		970			323			894			985	
Turn Bay Length (ft)	150			140		140	200		200	200		160
Base Capacity (vph)	328	535		179	184	396	246	3012	1069	715	2564	1032
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.26	0.56		0.37	0.87	0.01	1.04	0.48	0.00	0.07	0.72	0.99

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 76 (66%), Referenced to phase 5:SBT, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.26			
Intersection Signal Delay: 37.4		Intersection LOS: D	
Intersection Capacity Utilization 92.7%		ICU Level of Service F	

Lane Group	ø11	ø12	ø13	ø14
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	3.0
Minimum Split (s)	10.0	20.0	8.0	9.0
Total Split (s)	12.0	28.0	17.0	58.0
Total Split (%)	10%	24%	15%	50%
Maximum Green (s)	6.0	24.0	13.0	52.0
Yellow Time (s)	4.0	3.5	3.5	4.0
All-Red Time (s)	2.0	0.5	0.5	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	1.0
Minimum Gap (s)	3.0	3.0	3.0	0.2
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Walk Time (s)		5.0		
Flash Dont Walk (s)		11.0		
Pedestrian Calls (#/hr)		0		
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

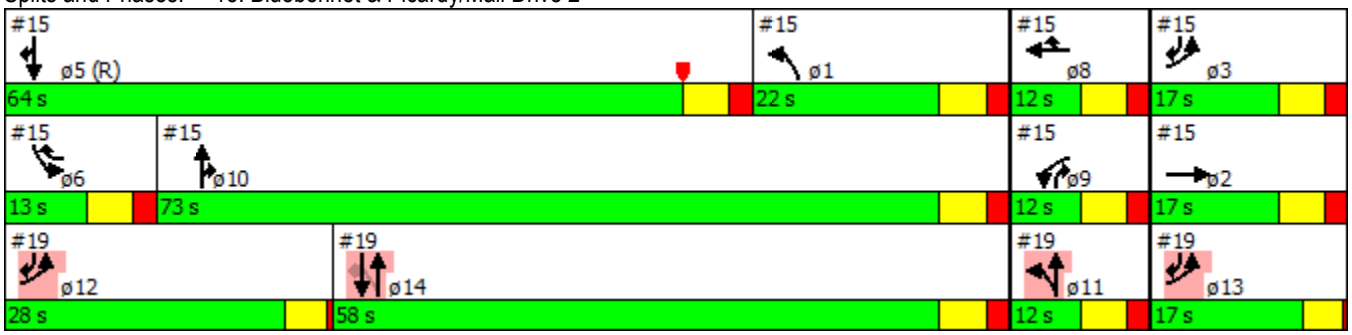
Analysis Period (min) 15

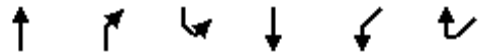
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

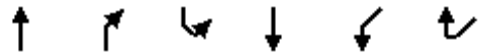
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 15: Bluebonnet & Picardy/Mall Drive 2





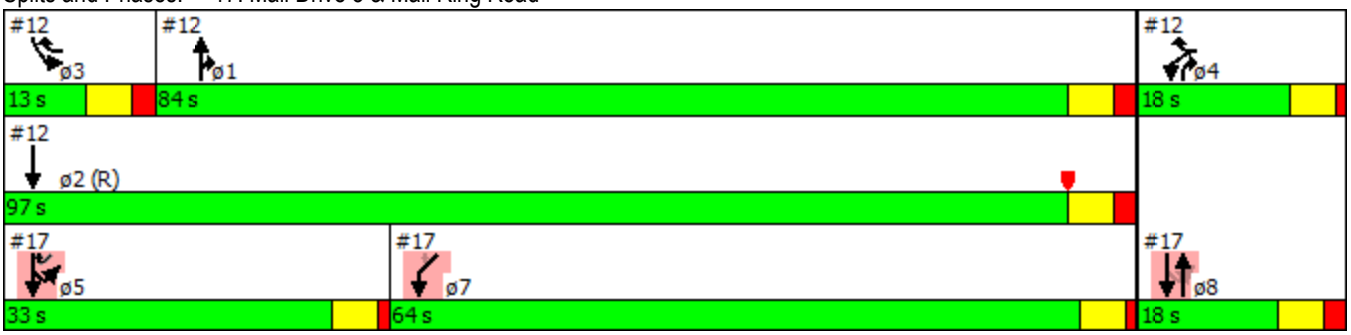
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Lane Configurations										
Volume (vph)	114	106	69	68	88	84				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00				
Frt	0.928					0.850				
Flt Protected			0.950		0.950					
Satd. Flow (prot)	3284	0	1770	1863	1770	1583				
Flt Permitted			0.585		0.950					
Satd. Flow (perm)	3284	0	1090	1863	1770	1583				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)	115					91				
Link Speed (mph)	30			30	30					
Link Distance (ft)	797			352	1050					
Travel Time (s)	18.1			8.0	23.9					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Adj. Flow (vph)	124	115	75	74	96	91				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	239	0	75	74	96	91				
Enter Blocked Intersection	No	No	No	No	No	No				
Lane Alignment	Left	Right	Left	Left	Left	Right				
Median Width(ft)	0			12	12					
Link Offset(ft)	0			0	0					
Crosswalk Width(ft)	16			16	16					
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)		9	15		15	9				
Number of Detectors	2		1	2	1	1				
Detector Template	Thru		Left	Thru	Left	Right				
Leading Detector (ft)	100		20	100	20	20				
Trailing Detector (ft)	0		0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0				
Detector 1 Size(ft)	6		20	6	20	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel										
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0				
Detector 2 Position(ft)	94			94						
Detector 2 Size(ft)	6			6						
Detector 2 Type	Cl+Ex			Cl+Ex						
Detector 2 Channel										
Detector 2 Extend (s)	0.0			0.0						
Turn Type	NA		D.P+P	NA	Prot	pm+ov				
Protected Phases	8		5	5 8	7	5	1	2	3	4
Permitted Phases			8			7				
Detector Phase	8		5	5 8	7	5				
Switch Phase										
Minimum Initial (s)	34.0		4.0		4.0	4.0	24.0	34.0	4.0	4.0
Minimum Split (s)	40.0		10.0		21.0	10.0	30.0	40.0	10.0	10.0

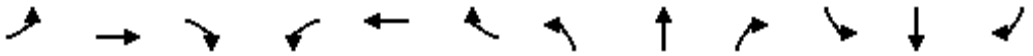


Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Total Split (s)	18.0		33.0		64.0	33.0	84.0	97.0	13.0	18.0
Total Split (%)	15.7%		28.7%		55.7%	28.7%	73%	84%	11%	16%
Maximum Green (s)	12.0		28.0		59.0	28.0	78.0	91.0	7.0	13.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		1.0		1.0	1.0	2.0	2.0	2.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0				
Total Lost Time (s)	6.0		5.0		5.0	5.0				
Lead/Lag			Lead		Lag	Lead	Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	Yes				
Vehicle Extension (s)	4.3		2.5		3.0	2.5	4.3	4.3	2.0	2.5
Minimum Gap (s)	2.2		0.2		3.0	0.2	2.2	2.2	0.2	0.2
Time Before Reduce (s)	30.0		0.0		0.0	0.0	20.0	30.0	0.0	0.0
Time To Reduce (s)	15.0		0.0		0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	Min		None		None	None	Min	C-Min	None	None
Walk Time (s)					5.0					
Flash Dont Walk (s)					11.0					
Pedestrian Calls (#/hr)					0					
Act Effct Green (s)	24.9		31.4	36.4	68.6	79.1				
Actuated g/C Ratio	0.22		0.27	0.32	0.60	0.69				
v/c Ratio	0.30		0.23	0.13	0.09	0.08				
Control Delay	22.8		59.8	56.6	1.0	0.1				
Queue Delay	0.0		0.0	0.0	0.0	0.0				
Total Delay	22.8		59.8	56.6	1.0	0.1				
LOS	C		E	E	A	A				
Approach Delay	22.8			58.2	0.6					
Approach LOS	C			E	A					
Queue Length 50th (ft)	38		56	55	4	0				
Queue Length 95th (ft)	87		m109	m108	2	0				
Internal Link Dist (ft)	717			272	970					
Turn Bay Length (ft)										
Base Capacity (vph)	800		676	954	1055	1117				
Starvation Cap Reductn	0		0	0	0	0				
Spillback Cap Reductn	0		0	0	0	0				
Storage Cap Reductn	0		0	0	0	0				
Reduced v/c Ratio	0.30		0.11	0.08	0.09	0.08				

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 94 (82%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 24.8		Intersection LOS: C	
Intersection Capacity Utilization 50.4%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

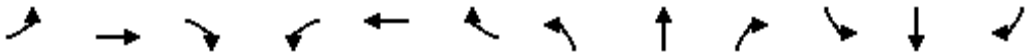
Splits and Phases: 17: Mall Drive 3 & Mall Ring Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1750	13	34	2744	4	0	0	50	31	0	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		200	300		100	0		0	65		0
Storage Lanes	1		1	2		1	0		2	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.850	
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	5085	1583	3433	5085	1583	0	0	2787	1770	1583	0
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	1863	5085	1583	3433	5085	1583	0	0	2787	1770	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			85			28			180		180	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1065			834			318			371	
Travel Time (s)		16.1			12.6			7.2			8.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1842	14	36	2888	4	0	0	53	33	0	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1842	14	36	2888	4	0	0	53	33	27	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1			1	1	1	
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45			45	45	45	
Trailing Detector (ft)	-6	284	-6	-6	284	-6			-6	-6	-6	
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			-6	-6	-6	
Detector 1 Size(ft)	51	51	51	51	51	51			51	51	51	
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA	Perm	Prot	NA	custom			Over	Perm	NA	
Protected Phases	1	7		5	4	2			5		2	
Permitted Phases			7			4				2		
Detector Phase	1	7	7	5	4	2			5	2	2	

Lane Group	ø8	ø9	ø10	ø11
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	8	9	10	11
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	14.0	4.0	14.0	4.0			4.0	4.0	4.0	
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	10.0			10.0	10.0	10.0	
Total Split (s)	15.0	85.0	85.0	18.0	88.0	12.0			18.0	12.0	12.0	
Total Split (%)	13.0%	73.9%	73.9%	15.7%	76.5%	10.4%			15.7%	10.4%	10.4%	
Maximum Green (s)	9.0	79.0	79.0	12.0	82.0	6.0			12.0	6.0	6.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0			6.0	6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	4.3	4.3	2.5	4.3	2.0			2.5	2.0	2.0	
Minimum Gap (s)	0.2	2.2	2.2	0.2	2.2	0.2			0.2	0.2	0.2	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	34.0	0.0			0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	15.0	0.0			0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Min	None			None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		90.0	90.0	6.4	100.1	115.0			6.4	6.3	6.3	
Actuated g/C Ratio		0.78	0.78	0.06	0.87	1.00			0.06	0.05	0.05	
v/c Ratio		0.46	0.01	0.19	0.65	0.00			0.16	0.34	0.11	
Control Delay		3.9	0.1	48.0	8.3	0.0			3.2	62.0	0.8	
Queue Delay		0.0	0.0	0.0	0.2	0.0			0.0	0.0	0.0	
Total Delay		3.9	0.1	48.0	8.5	0.0			3.2	62.0	0.8	
LOS		A	A	D	A	A			A	E	A	
Approach Delay		3.9			8.9						34.5	
Approach LOS		A			A						C	
Queue Length 50th (ft)		94	0	12	538	0			0	24	0	
Queue Length 95th (ft)		m138	m0	m14	m549	m0			0	57	0	
Internal Link Dist (ft)		985			754			238			291	
Turn Bay Length (ft)			200	300		100				65		
Base Capacity (vph)		3977	1256	358	4425	1567			452	101	260	
Starvation Cap Reductn		0	0	0	535	0			0	0	0	
Spillback Cap Reductn		0	0	0	0	0			0	0	0	
Storage Cap Reductn		0	0	0	0	0			0	0	0	
Reduced v/c Ratio		0.46	0.01	0.10	0.74	0.00			0.12	0.33	0.10	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 95 (83%), Referenced to phase 4:WBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 7.3		Intersection LOS: A	
Intersection Capacity Utilization 66.4%		ICU Level of Service C	

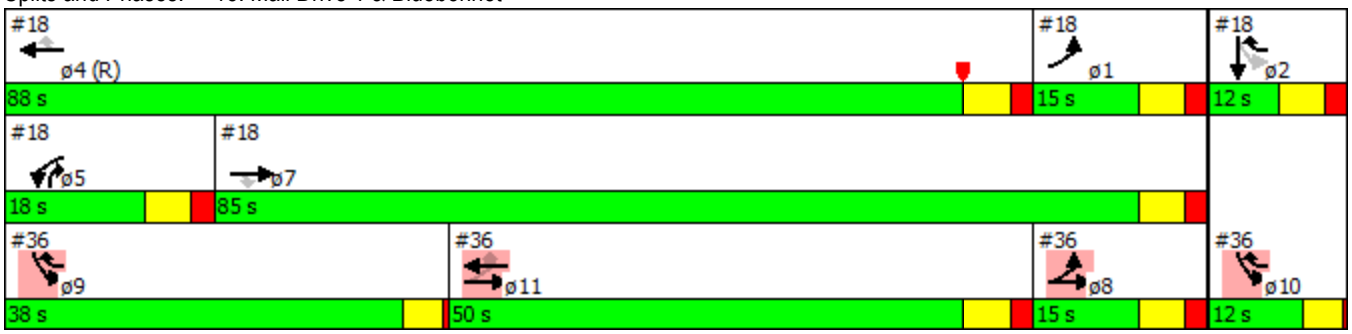
Lane Group	ø8	ø9	ø10	ø11
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	14.0
Minimum Split (s)	22.0	8.0	20.0	20.0
Total Split (s)	15.0	38.0	12.0	50.0
Total Split (%)	13%	33%	10%	43%
Maximum Green (s)	9.0	34.0	8.0	44.0
Yellow Time (s)	4.0	3.5	3.5	4.0
All-Red Time (s)	2.0	0.5	0.5	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	4.3
Minimum Gap (s)	3.0	3.0	3.0	2.2
Time Before Reduce (s)	0.0	0.0	0.0	34.0
Time To Reduce (s)	0.0	0.0	0.0	15.0
Recall Mode	None	None	None	Min
Walk Time (s)	5.0		5.0	
Flash Dont Walk (s)	11.0		11.0	
Pedestrian Calls (#/hr)	0		0	
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

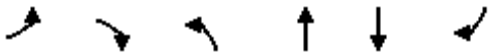
Intersection Summary

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

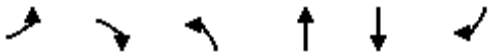
Splits and Phases: 18: Mall Drive 1 & Bluebonnet





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Lane Configurations												
Volume (vph)	35	22	151	24	150	67						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Frt		0.850				0.850						
Flt Protected	0.950		0.950									
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583						
Flt Permitted	0.950		0.654									
Satd. Flow (perm)	1770	1583	1218	1863	1863	1583						
Right Turn on Red		Yes				Yes						
Satd. Flow (RTOR)		24				73						
Link Speed (mph)	30			30	30							
Link Distance (ft)	403			1050	819							
Travel Time (s)	9.2			23.9	18.6							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	38	24	164	26	163	73						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	24	164	26	163	73						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Right	Left	Left	Left	Right						
Median Width(ft)	36			12	0							
Link Offset(ft)	0			0	0							
Crosswalk Width(ft)	16			16	16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15	9	15			9						
Number of Detectors	1	1	1	2	2	1						
Detector Template	Left	Right	Left	Thru	Thru	Right						
Leading Detector (ft)	20	20	20	100	100	20						
Trailing Detector (ft)	0	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0	0						
Detector 1 Size(ft)	20	20	20	6	6	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)				94	94							
Detector 2 Size(ft)				6	6							
Detector 2 Type				Cl+Ex	Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)				0.0	0.0							
Turn Type	Prot	Free	D.P+P	NA	NA	pm+ov						
Protected Phases	12 13		11	11 14	14	12 13	1	2	3	5	6	8
Permitted Phases		Free	14			14						
Detector Phase	12 13		11	11 14	14	12 13						
Switch Phase												
Minimum Initial (s)			4.0		3.0		3.0	3.0	3.0	21.0	3.0	3.0
Minimum Split (s)			10.0		9.0		11.0	9.0	9.0	27.0	11.0	9.0

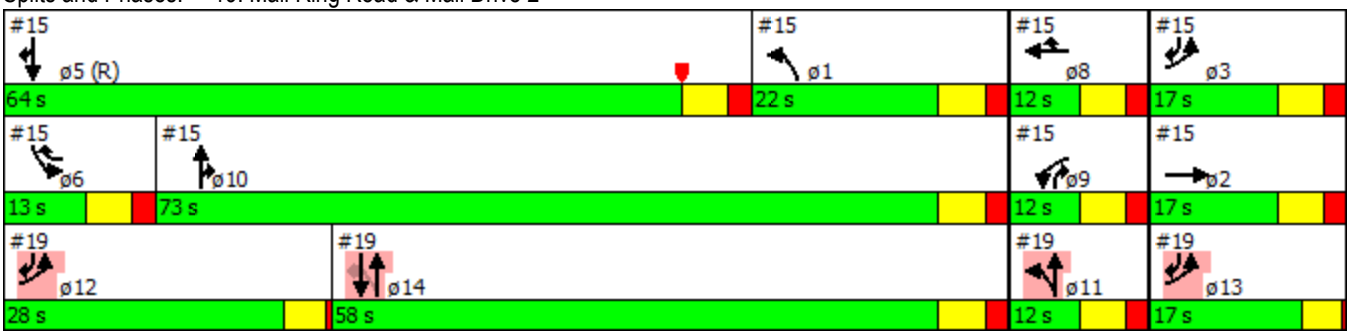
Lane Group	ø9	ø10	ø12	ø13
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	9	10	12	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	21.0	4.0	4.0
Minimum Split (s)	9.0	27.0	20.0	8.0



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Total Split (s)			12.0		58.0		22.0	17.0	17.0	64.0	13.0	12.0
Total Split (%)			10.4%		50.4%		19%	15%	15%	56%	11%	10%
Maximum Green (s)			6.0		52.0		16.0	11.0	11.0	58.0	7.0	6.0
Yellow Time (s)			4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)			2.0		2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0		0.0							
Total Lost Time (s)			6.0		6.0							
Lead/Lag					Lag		Lag			Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0		1.0		3.0	1.0	1.5	4.3	1.0	1.0
Minimum Gap (s)			3.0		0.2		0.2	0.2	0.2	2.2	0.2	0.2
Time Before Reduce (s)			0.0		0.0		0.0	0.0	0.0	28.0	0.0	0.0
Time To Reduce (s)			0.0		0.0		0.0	0.0	0.0	15.0	0.0	0.0
Recall Mode			None		None		None	None	None	C-Min	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	36.1	115.0	65.6	71.6	59.6	97.3						
Actuated g/C Ratio	0.31	1.00	0.57	0.62	0.52	0.85						
v/c Ratio	0.07	0.02	0.23	0.02	0.17	0.05						
Control Delay	77.2	0.0	19.4	13.4	4.0	0.1						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	77.2	0.0	19.4	13.4	4.0	0.1						
LOS	E	A	B	B	A	A						
Approach Delay	47.3			18.6	2.8							
Approach LOS	D			B	A							
Queue Length 50th (ft)	30	0	84	12	9	0						
Queue Length 95th (ft)	m63	m0	177	43	16	0						
Internal Link Dist (ft)	323			970	739							
Turn Bay Length (ft)												
Base Capacity (vph)	819	1583	723	1236	1081	1380						
Starvation Cap Reductn	0	0	0	0	0	0						
Spillback Cap Reductn	0	0	0	0	0	0						
Storage Cap Reductn	0	0	0	0	0	0						
Reduced v/c Ratio	0.05	0.02	0.23	0.02	0.15	0.05						

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 76 (66%), Referenced to phase 5:SBT, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.26			
Intersection Signal Delay: 14.6		Intersection LOS: B	
Intersection Capacity Utilization 32.9%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 19: Mall Ring Road & Mall Drive 2

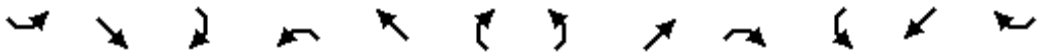


Lane Group	ø9	ø10	ø12	ø13
Total Split (s)	12.0	73.0	28.0	17.0
Total Split (%)	10%	63%	24%	15%
Maximum Green (s)	6.0	67.0	24.0	13.0
Yellow Time (s)	4.0	4.0	3.5	3.5
All-Red Time (s)	2.0	2.0	0.5	0.5
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?			Yes	
Vehicle Extension (s)	1.0	4.3	3.0	3.0
Minimum Gap (s)	0.2	0.2	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Walk Time (s)			5.0	
Flash Dont Walk (s)			11.0	
Pedestrian Calls (#/hr)			0	
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	429	1	1074	0	0	0	0	1752	80	288	1707	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		0	0		0	400		0	300		0
Storage Lanes	1		1	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950	0.953								0.950		
Satd. Flow (prot)	1681	1686	1583	0	0	0	0	6408	1583	1770	3539	0
Flt Permitted	0.950	0.953								0.950		
Satd. Flow (perm)	1681	1686	1583	0	0	0	0	6408	1583	1770	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			465						84			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1072			1024			834			410	
Travel Time (s)		24.4			23.3			12.6			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	452	1	1131	0	0	0	0	1844	84	303	1797	0
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	226	227	1131	0	0	0	0	1844	84	303	1797	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			25	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					2	1	1	2	
Detector Template												
Leading Detector (ft)	45	45	45					290	45	45	290	
Trailing Detector (ft)	-6	-6	-6					284	-6	-6	284	
Detector 1 Position(ft)	-6	-6	-6					-6	-6	-6	-6	
Detector 1 Size(ft)	51	51	51					51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA	Free					NA	Perm	Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2			
Detector Phase	4	4						2	2	1	6	

Lane Group	ø5	ø8
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	5	8
Permitted Phases		
Detector Phase		



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)	3.0	3.0						10.0	10.0	3.0	10.0	
Minimum Split (s)	20.0	20.0						20.0	20.0	8.0	20.0	
Total Split (s)	20.0	20.0						70.0	70.0	25.0	65.0	
Total Split (%)	17.4%	17.4%						60.9%	60.9%	21.7%	56.5%	
Maximum Green (s)	15.0	15.0						65.0	65.0	20.0	60.0	
Yellow Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0	2.0	2.0	6.0	
Recall Mode	None	None						C-Max	C-Max	None	Max	
Act Effct Green (s)	15.0	15.0	115.0					65.0	65.0	20.0	60.0	
Actuated g/C Ratio	0.13	0.13	1.00					0.57	0.57	0.17	0.52	
v/c Ratio	1.03	1.04	0.71					0.51	0.09	0.99	0.97	
Control Delay	118.8	119.9	2.8					14.1	1.4	65.8	23.9	
Queue Delay	0.0	0.0	0.0					0.1	0.0	0.0	25.3	
Total Delay	118.8	119.9	2.8					14.2	1.4	65.8	49.1	
LOS	F	F	A					B	A	E	D	
Approach Delay		36.1						13.6			51.6	
Approach LOS		D						B			D	
Queue Length 50th (ft)	~189	~190	0					121	4	215	240	
Queue Length 95th (ft)	#354	#355	0					159	10	m#267	m#785	
Internal Link Dist (ft)		992			944			754			330	
Turn Bay Length (ft)	375									300		
Base Capacity (vph)	219	219	1583					3621	931	307	1846	
Starvation Cap Reductn	0	0	0					0	0	0	152	
Spillback Cap Reductn	0	0	0					334	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	1.03	1.04	0.71					0.56	0.09	0.99	1.06	

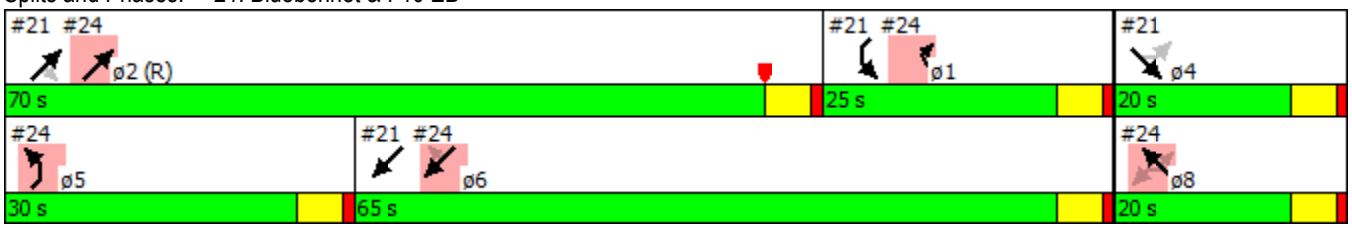
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 0 (0%), Referenced to phase 2:NET, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.14			
Intersection Signal Delay: 34.2		Intersection LOS: C	
Intersection Capacity Utilization 96.6%		ICU Level of Service F	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

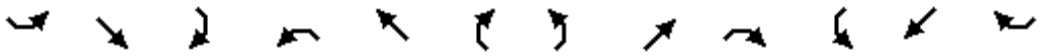
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: Bluebonnet & I-10 EB



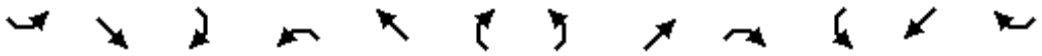
Lane Group	ø5	ø8
Switch Phase		
Minimum Initial (s)	3.0	3.0
Minimum Split (s)	8.0	20.0
Total Split (s)	30.0	20.0
Total Split (%)	26%	17%
Maximum Green (s)	25.0	15.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?		
Vehicle Extension (s)	3.5	2.0
Recall Mode	Max	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	0	0	443	4	643	429	1752	0	0	1552	265
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		525	300		0	0		575
Storage Lanes	0		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt						0.850						0.850
Flt Protected				0.950	0.953		0.950					
Satd. Flow (prot)	0	0	0	1681	1686	1583	3433	3539	0	0	3539	1583
Flt Permitted				0.950	0.953		0.950					
Satd. Flow (perm)	0	0	0	1681	1686	1583	3433	3539	0	0	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						66						279
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		894			1008			410			866	
Travel Time (s)		20.3			22.9			6.2			13.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	466	4	677	452	1844	0	0	1634	279
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	0	0	233	237	677	452	1844	0	0	1634	279
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			40			50	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			2	1
Detector Template												
Leading Detector (ft)				45	45	45	45	290			290	45
Trailing Detector (ft)				-6	-6	-6	-6	284			284	-6
Detector 1 Position(ft)				-6	-6	-6	-6	-6			-6	-6
Detector 1 Size(ft)				51	51	51	51	51			51	51
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call			Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type				Perm	NA	custom	Prot	NA			NA	Perm
Protected Phases					8	1	5	2			6	
Permitted Phases				8		8						6
Detector Phase				8	8	1	5	2			6	6

Lane Group	ø4
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)				3.0	3.0	3.0	3.0	10.0			10.0	10.0
Minimum Split (s)				20.0	20.0	8.0	8.0	20.0			20.0	20.0
Total Split (s)				20.0	20.0	25.0	30.0	70.0			65.0	65.0
Total Split (%)				17.4%	17.4%	21.7%	26.1%	60.9%			56.5%	56.5%
Maximum Green (s)				15.0	15.0	20.0	25.0	65.0			60.0	60.0
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
All-Red Time (s)				1.0	1.0	1.0	1.0	1.0			1.0	1.0
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)				5.0	5.0	5.0	5.0	5.0			5.0	5.0
Lead/Lag						Lag	Lead	Lead			Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0	2.0	3.5	2.0			6.0	6.0
Recall Mode				None	None	None	Max	C-Max			Max	Max
Act Effct Green (s)				15.0	15.0	40.0	25.0	65.0			60.0	60.0
Actuated g/C Ratio				0.13	0.13	0.35	0.22	0.57			0.52	0.52
v/c Ratio				1.06	1.08	1.14	0.61	0.92			0.89	0.29
Control Delay				126.8	131.8	114.9	34.4	20.4			21.9	1.4
Queue Delay				0.0	0.0	0.0	0.0	0.0			4.2	0.0
Total Delay				126.8	131.8	114.9	34.4	20.4			26.1	1.4
LOS				F	F	F	C	C			C	A
Approach Delay					120.8			23.2			22.5	
Approach LOS					F			C			C	
Queue Length 50th (ft)				~200	~206	~554	121	545			641	5
Queue Length 95th (ft)				#367	#374	#785	m139	m736			714	m9
Internal Link Dist (ft)		814			928			330			786	
Turn Bay Length (ft)						525	300					575
Base Capacity (vph)				219	219	593	746	2000			1846	959
Starvation Cap Reductn				0	0	0	0	0			0	0
Spillback Cap Reductn				0	0	0	0	0			154	0
Storage Cap Reductn				0	0	0	0	0			0	0
Reduced v/c Ratio				1.06	1.08	1.14	0.61	0.92			0.97	0.29

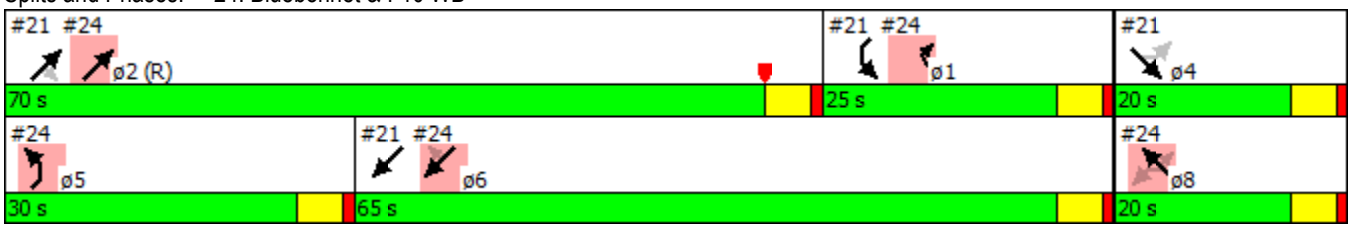
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 0 (0%), Referenced to phase 2:NET, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.14			
Intersection Signal Delay: 43.9		Intersection LOS: D	
Intersection Capacity Utilization 96.6%		ICU Level of Service F	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

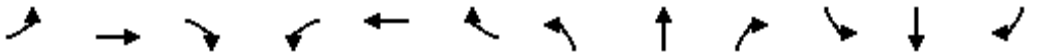
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 24: Bluebonnet & I-10 WB

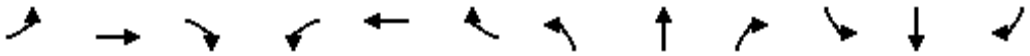


Lane Group	ø4
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	20.0
Total Split (s)	20.0
Total Split (%)	17%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	32	17	269	9	24	87	1665	643	287	1531	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		200	300		175	175		175
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.948			0.925	0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3355	0	3433	1637	1504	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.078			0.069		
Satd. Flow (perm)	1770	3355	0	3433	1637	1504	145	3539	1583	129	3539	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		18										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		475			1072			866			1049	
Travel Time (s)		10.8			24.4			13.1			15.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	46	34	18	283	9	25	92	1753	677	302	1612	57
Shared Lane Traffic (%)						35%						
Lane Group Flow (vph)	46	52	0	283	18	16	92	1753	677	302	1612	57
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		60			60			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4		3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases							2			6		
Detector Phase	7	4		3	8	8 1	5	2	2 3	1	6	6 7



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	5.0		5.0	3.0		3.0	20.0		5.0	20.0	
Minimum Split (s)	8.9	10.9		10.9	8.9		9.6	26.6		11.6	26.6	
Total Split (s)	12.3	12.3		23.0	23.0		17.7	57.0		22.7	62.0	
Total Split (%)	10.7%	10.7%		20.0%	20.0%		15.4%	49.6%		19.7%	53.9%	
Maximum Green (s)	6.4	6.4		17.1	17.1		11.1	50.4		16.1	55.4	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	0.9	0.9		0.9	0.9		1.6	1.6		1.6	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.9	5.9		5.9	5.9		6.6	6.6		6.6	6.6	
Lead/Lag	Lead	Lead		Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		2.5	1.5		1.5	5.0		1.5	5.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	10.2	5.5		16.0	13.3	35.3	60.9	54.0	70.7	77.1	63.8	79.9
Actuated g/C Ratio	0.09	0.05		0.14	0.12	0.31	0.53	0.47	0.61	0.67	0.55	0.69
v/c Ratio	0.29	0.29		0.59	0.10	0.03	0.53	1.05	0.70	0.94	0.82	0.05
Control Delay	56.0	42.2		51.5	44.2	25.3	21.4	51.5	7.6	72.0	19.6	4.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.0	42.2		51.5	44.2	25.3	21.4	51.5	7.6	72.0	19.6	4.4
LOS	E	D		D	D	C	C	D	A	E	B	A
Approach Delay		48.6			49.8			38.6			27.2	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	34	13		100	12	8	18	~786	167	155	544	7
Queue Length 95th (ft)	73	33		146	35	25	m19	m#831	m158	#362	#731	m14
Internal Link Dist (ft)		395			992			786			969	
Turn Bay Length (ft)	75			200		200	300		175	175		175
Base Capacity (vph)	164	203		519	243	493	239	1663	991	322	1962	1106
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.26		0.55	0.07	0.03	0.38	1.05	0.68	0.94	0.82	0.05

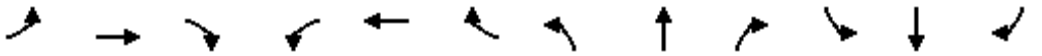
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 5 (4%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.05			
Intersection Signal Delay: 34.9		Intersection LOS: C	
Intersection Capacity Utilization 92.2%		ICU Level of Service F	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

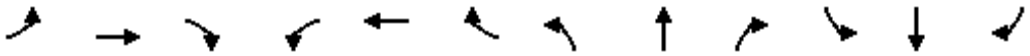
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 27: Bluebonnet & Blue Cross



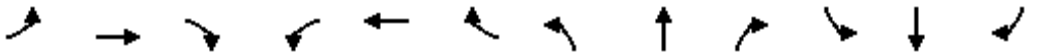
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	22	1	23	30	2	7	9	1698	26	1	1819	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		130	150		185
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.932			0.977				0.850			0.850
Flt Protected		0.977			0.962		0.950			0.950		
Satd. Flow (prot)	0	1696	0	0	1751	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.827			0.834		0.092			0.109		
Satd. Flow (perm)	0	1436	0	0	1518	0	171	3539	1583	203	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			7				28			28
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1129			1330			1049			1811	
Travel Time (s)		25.7			30.2			15.9			27.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	23	1	24	32	2	7	9	1787	27	1	1915	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	41	0	9	1787	27	1	1915	4
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



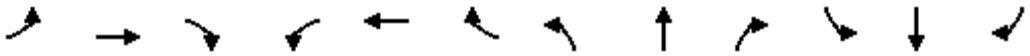
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	11.0	11.0		11.0	11.0		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	25.0	25.0		25.0	25.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	21.7%	21.7%		21.7%	21.7%		78.3%	78.3%	78.3%	78.3%	78.3%	78.3%
Maximum Green (s)	19.0	19.0		19.0	19.0		84.0	84.0	84.0	84.0	84.0	84.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		8.1			8.1		98.3	98.3	98.3	98.3	98.3	98.3
Actuated g/C Ratio		0.07			0.07		0.85	0.85	0.85	0.85	0.85	0.85
v/c Ratio		0.39			0.36		0.06	0.59	0.02	0.01	0.63	0.00
Control Delay		39.1			52.1		0.7	6.8	0.2	4.0	8.7	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		39.1			52.1		0.7	6.8	0.2	4.0	8.7	0.0
LOS		D			D		A	A	A	A	A	A
Approach Delay		39.1			52.1			6.7			8.6	
Approach LOS		D			D			A			A	
Queue Length 50th (ft)		17			24		1	198	0	0	343	0
Queue Length 95th (ft)		55			59		m0	m38	m0	m0	712	m0
Internal Link Dist (ft)		1049			1250			969			1731	
Turn Bay Length (ft)							150		130	150		185
Base Capacity (vph)		257			256		146	3026	1357	173	3026	1357
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.19			0.16		0.06	0.59	0.02	0.01	0.63	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 34 (30%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 8.5		Intersection LOS: A	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 30: Bluebonnet & Gail



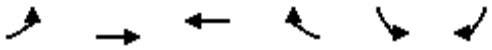
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	7	74	32	2	22	73	1636	18	6	1717	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.893			0.947				0.850			0.850
Flt Protected		0.993			0.972		0.950			0.950		
Satd. Flow (prot)	0	1652	0	0	1715	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.953			0.705		0.100			0.113		
Satd. Flow (perm)	0	1585	0	0	1244	0	186	3539	1583	210	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			23				30			30
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1794			2049			1811			2409	
Travel Time (s)		40.8			46.6			27.4			36.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	13	7	78	34	2	23	77	1722	19	6	1807	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	98	0	0	59	0	77	1722	19	6	1807	27
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	9.2	9.2		9.2	9.2		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	34.2	34.2		34.2	34.2		80.8	80.8	80.8	80.8	80.8	80.8
Total Split (%)	29.7%	29.7%		29.7%	29.7%		70.3%	70.3%	70.3%	70.3%	70.3%	70.3%
Maximum Green (s)	28.0	28.0		28.0	28.0		74.8	74.8	74.8	74.8	74.8	74.8
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.2	1.2		1.2	1.2		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.2			6.2		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		10.4			10.4		92.4	92.4	92.4	92.4	92.4	92.4
Actuated g/C Ratio		0.09			0.09		0.80	0.80	0.80	0.80	0.80	0.80
v/c Ratio		0.59			0.44		0.52	0.61	0.01	0.04	0.64	0.02
Control Delay		50.9			42.5		15.9	3.7	0.1	3.7	6.2	1.0
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		50.9			42.5		15.9	3.7	0.1	3.7	6.2	1.0
LOS		D			D		B	A	A	A	A	A
Approach Delay		50.9			42.5			4.2			6.1	
Approach LOS		D			D			A			A	
Queue Length 50th (ft)		52			25		0	2	0	1	224	0
Queue Length 95th (ft)		104			66		m24	18	m1	5	355	6
Internal Link Dist (ft)		1714			1969			1731			2329	
Turn Bay Length (ft)							150		150	150		150
Base Capacity (vph)		404			320		149	2843	1277	168	2843	1277
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.24			0.18		0.52	0.61	0.01	0.04	0.64	0.02

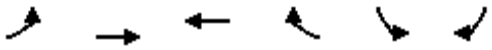
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 91 (79%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 6.9		Intersection LOS: A	
Intersection Capacity Utilization 80.7%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 33: Bluebonnet & Oliphant



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Lane Configurations												
Volume (vph)	17	42	198	33	28	19						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.95						
Frt				0.850	0.938							
Flt Protected	0.950				0.971							
Satd. Flow (prot)	1770	1863	1863	1583	3291	0						
Flt Permitted	0.412				0.971							
Satd. Flow (perm)	767	1863	1863	1583	3291	0						
Right Turn on Red				Yes		Yes						
Satd. Flow (RTOR)				36	21							
Link Speed (mph)		30	30		30							
Link Distance (ft)		819	802		318							
Travel Time (s)		18.6	18.2		7.2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	18	46	215	36	30	21						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	46	215	36	51	0						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Right	Left	Right						
Median Width(ft)		12	0		36							
Link Offset(ft)		0	0		0							
Crosswalk Width(ft)		16	16		16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15			9	15	9						
Number of Detectors	1	2	2	1	1							
Detector Template	Left	Thru	Thru	Right	Left							
Leading Detector (ft)	20	100	100	20	20							
Trailing Detector (ft)	0	0	0	0	0							
Detector 1 Position(ft)	0	0	0	0	0							
Detector 1 Size(ft)	20	6	6	20	20							
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex							
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0							
Detector 2 Position(ft)		94	94									
Detector 2 Size(ft)		6	6									
Detector 2 Type		Cl+Ex	Cl+Ex									
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0									
Turn Type	D.P+P	NA	NA	pm+ov	Prot							
Protected Phases	8	8 11	11	9 10	9 10		1	2	4	5	7	9
Permitted Phases	11			11								
Detector Phase	8	8 11	11	9 10	9 10							
Switch Phase												
Minimum Initial (s)	4.0		14.0				4.0	4.0	14.0	4.0	14.0	4.0
Minimum Split (s)	22.0		20.0				10.0	10.0	20.0	10.0	20.0	8.0

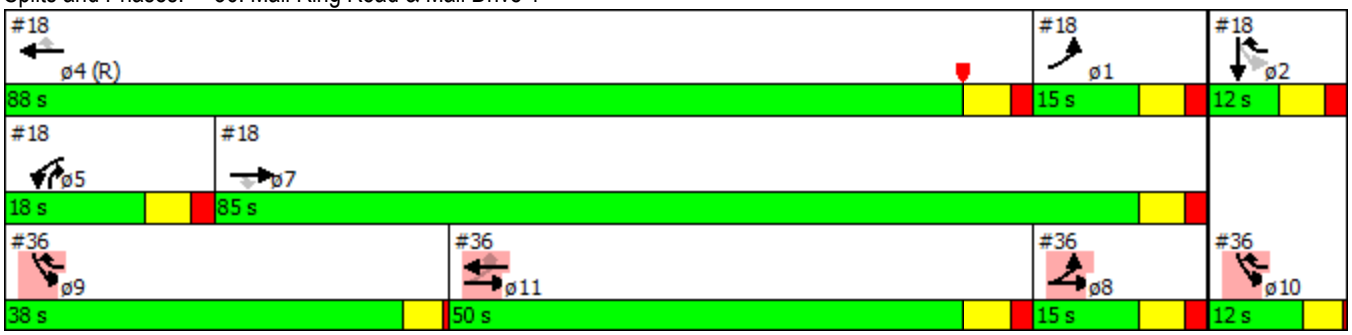
Lane Group	ø10
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	10
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	20.0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Total Split (s)	15.0		50.0				15.0	12.0	88.0	18.0	85.0	38.0
Total Split (%)	13.0%		43.5%				13%	10%	77%	16%	74%	33%
Maximum Green (s)	9.0		44.0				9.0	6.0	82.0	12.0	79.0	34.0
Yellow Time (s)	4.0		4.0				4.0	4.0	4.0	4.0	4.0	3.5
All-Red Time (s)	2.0		2.0				2.0	2.0	2.0	2.0	2.0	0.5
Lost Time Adjust (s)	0.0		0.0									
Total Lost Time (s)	6.0		6.0									
Lead/Lag			Lag				Lag		Lead	Lead	Lag	Lead
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0		4.3				2.5	2.0	4.3	2.5	4.3	3.0
Minimum Gap (s)	3.0		2.2				0.2	0.2	2.2	0.2	2.2	3.0
Time Before Reduce (s)	0.0		34.0				0.0	0.0	34.0	0.0	0.0	0.0
Time To Reduce (s)	0.0		15.0				0.0	0.0	15.0	0.0	0.0	0.0
Recall Mode	None		Min				None	None	C-Min	None	None	None
Walk Time (s)	5.0											
Flash Dont Walk (s)	11.0											
Pedestrian Calls (#/hr)	0											
Act Effct Green (s)	85.3	92.5	20.2	40.0	15.6							
Actuated g/C Ratio	0.74	0.80	0.18	0.35	0.14							
v/c Ratio	0.02	0.03	0.66	0.06	0.11							
Control Delay	2.2	1.6	53.2	6.3	66.7							
Queue Delay	0.0	0.0	0.0	0.0	0.0							
Total Delay	2.2	1.6	53.2	6.3	66.7							
LOS	A	A	D	A	E							
Approach Delay		1.7	46.5		66.7							
Approach LOS		A	D		E							
Queue Length 50th (ft)	1	4	150	0	14							
Queue Length 95th (ft)	1	1	215	19	34							
Internal Link Dist (ft)		739	722		238							
Turn Bay Length (ft)												
Base Capacity (vph)	1135	1498	712	632	1254							
Starvation Cap Reductn	0	0	0	0	0							
Spillback Cap Reductn	0	0	0	0	0							
Storage Cap Reductn	0	0	0	0	0							
Reduced v/c Ratio	0.02	0.03	0.30	0.06	0.04							

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 95 (83%), Referenced to phase 4:WBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 41.5		Intersection LOS: D	
Intersection Capacity Utilization 25.8%		ICU Level of Service A	
Analysis Period (min) 15			

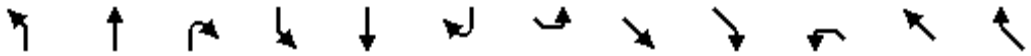
Splits and Phases: 36: Mall Ring Road & Mall Drive 1



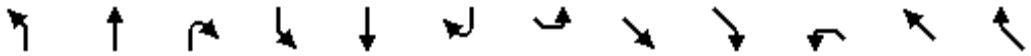
Lane Group	ø10
Total Split (s)	12.0
Total Split (%)	10%
Maximum Green (s)	8.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Minimum Gap (s)	3.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

M.3 2015 EXISTING NOON – ESSEN LANE



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	214	562	80	339	846	369	456	796	122	157	1062	294
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	800		0	300		0	150		0
Storage Lanes	1		0	1		1	2		0	1		0
Taper Length (ft)	150			25			200			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Frt		0.981				0.850		0.980			0.967	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3472	0	1770	3539	1583	3433	3468	0	1770	3422	0
Flt Permitted	0.111			0.100			0.950			0.950		
Satd. Flow (perm)	207	3472	0	186	3539	1583	3433	3468	0	1770	3422	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8				244		11			20	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1877			1475			2128			1788	
Travel Time (s)		28.4			22.3			32.2			27.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	233	611	87	368	920	401	496	865	133	171	1154	320
Shared Lane Traffic (%)												
Lane Group Flow (vph)	233	698	0	368	920	401	496	998	0	171	1474	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	0	1	1		1	1	
Detector Template												
Leading Detector (ft)	45	290		45	290	0	45	45		45	45	
Trailing Detector (ft)	-6	284		-6	284	0	-6	-6		-6	-6	
Detector 1 Position(ft)	-6	-6		-6	-6	0	-6	-6		-6	-6	
Detector 1 Size(ft)	51	51		51	51	50	51	51		51	51	
Detector 1 Type	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2		2						
Detector Phase	1	6		5	2	2	3	8		7	4	



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	5.0	10.0		3.0	10.0	
Minimum Split (s)	8.8	15.8		8.8	15.8	15.8	11.5	16.5		9.5	16.5	
Total Split (s)	30.8	40.8		30.8	45.8	45.8	41.5	66.5		21.5	56.5	
Total Split (%)	17.6%	23.4%		17.6%	26.2%	26.2%	23.8%	38.1%		12.3%	32.4%	
Maximum Green (s)	25.0	35.0		25.0	40.0	40.0	35.0	60.0		15.0	50.0	
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8	5.5	5.5		5.5	5.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8		5.8	5.8	5.8	6.5	6.5		6.5	6.5	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	6.0		2.0	6.0	6.0	2.0	6.0		2.0	6.0	
Minimum Gap (s)	0.2	4.0		0.2	4.0	4.0	0.2	4.0		0.2	4.0	
Time Before Reduce (s)	0.0	20.0		0.0	20.0	20.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	
Act Effct Green (s)	57.1	36.1		64.1	40.1	40.1	27.8	55.6		22.4	50.1	
Actuated g/C Ratio	0.35	0.22		0.39	0.24	0.24	0.17	0.34		0.14	0.31	
v/c Ratio	0.86	0.91		1.17	1.06	0.70	0.85	0.84		0.71	1.39	
Control Delay	73.3	77.9		149.0	105.7	29.6	80.7	57.4		86.2	221.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	73.3	77.9		149.0	105.7	29.6	80.7	57.4		86.2	221.9	
LOS	E	E		F	F	C	F	E		F	F	
Approach Delay		76.8			97.0			65.1			207.8	
Approach LOS		E			F			E			F	
Queue Length 50th (ft)	193	384		~426	~582	161	272	504		186	~1120	
Queue Length 95th (ft)	#326	#492		#692	#781	313	344	642		280	#1356	
Internal Link Dist (ft)		1797			1395			2048			1708	
Turn Bay Length (ft)	250			800			300			150		
Base Capacity (vph)	316	856		315	867	572	735	1280		270	1061	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.74	0.82		1.17	1.06	0.70	0.67	0.78		0.63	1.39	

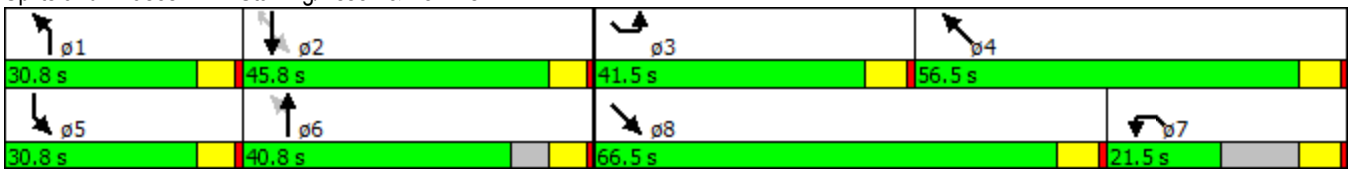
Intersection Summary			
Area Type:	Other		
Cycle Length: 174.6			
Actuated Cycle Length: 163.8			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.39			
Intersection Signal Delay: 117.1		Intersection LOS: F	
Intersection Capacity Utilization 109.1%		ICU Level of Service H	
Analysis Period (min) 15			

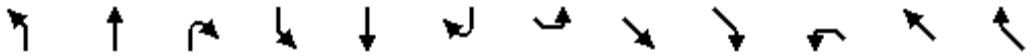
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

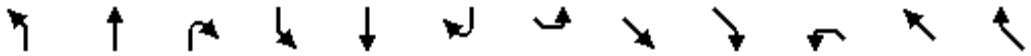
Splits and Phases: 2: Starring/Essen & Perkins





Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	0	1792	442	331	1297	0	12	0	867	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970							0.850			
Flt Protected				0.950				0.950				
Satd. Flow (prot)	0	4933	0	1770	3539	0	0	1770	1583	0	0	0
Flt Permitted				0.950				0.950				
Satd. Flow (perm)	0	4933	0	1770	3539	0	0	1770	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		75							260			
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		721			409			1012			1106	
Travel Time (s)		10.9			6.2			23.0			25.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1948	480	360	1410	0	13	0	942	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2428	0	360	1410	0	0	13	942	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			20			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2		1	1	0			
Detector Template							Left					
Leading Detector (ft)		290		45	290		20	45	0			
Trailing Detector (ft)		284		-6	284		0	-6	0			
Detector 1 Position(ft)		-6		-6	-6		0	-6	0			
Detector 1 Size(ft)		51		51	51		20	51	20			
Detector 1 Type		Call		Cl+Ex	Call		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Queue (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Delay (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA		Prot	NA		Perm	NA	Free			
Protected Phases		6		5	5 6			8				
Permitted Phases							8		Free			
Detector Phase		6		5	5 6		8	8				
Switch Phase												
Minimum Initial (s)		10.0		3.0			3.0	3.0				
Minimum Split (s)		16.0		9.0			9.0	9.0				

Lane Group	ø1	ø2	ø4
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	1	2	4
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Total Split (s)		100.0		25.0			25.0	25.0				
Total Split (%)		66.7%		16.7%			16.7%	16.7%				
Maximum Green (s)		94.0		19.0			19.0	19.0				
Yellow Time (s)		5.0		5.0			5.0	5.0				
All-Red Time (s)		1.0		1.0			1.0	1.0				
Lost Time Adjust (s)		0.0		0.0				0.0				
Total Lost Time (s)		6.0		6.0				6.0				
Lead/Lag		Lag					Lead	Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)		4.0		2.5			2.0	2.0				
Minimum Gap (s)		2.0		0.2			0.2	0.2				
Time Before Reduce (s)		10.0		0.0			0.0	0.0				
Time To Reduce (s)		20.0		0.0			0.0	0.0				
Recall Mode		Max		C-Max			Max	Max				
Act Effct Green (s)		94.0		19.0	119.0			19.0	150.0			
Actuated g/C Ratio		0.63		0.13	0.79			0.13	1.00			
v/c Ratio		0.78		1.61	0.50			0.06	0.60			
Control Delay		30.4		308.5	11.3			58.6	1.7			
Queue Delay		6.8		0.0	1.8			0.0	0.0			
Total Delay		37.2		308.5	13.1			58.6	1.7			
LOS		D		F	B			E	A			
Approach Delay		37.2			73.2			2.4				
Approach LOS		D			E			A				
Queue Length 50th (ft)		575		~490	216			11	0			
Queue Length 95th (ft)		955		m#514	m226			34	0			
Internal Link Dist (ft)		641			329			932			1026	
Turn Bay Length (ft)												
Base Capacity (vph)		3119		224	2807			224	1583			
Starvation Cap Reductn		660		0	1173			0	0			
Spillback Cap Reductn		203		0	0			0	0			
Storage Cap Reductn		0		0	0			0	0			
Reduced v/c Ratio		0.99		1.61	0.86			0.06	0.60			

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 0 (0%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.61			
Intersection Signal Delay: 43.1		Intersection LOS: D	
Intersection Capacity Utilization 81.2%		ICU Level of Service D	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

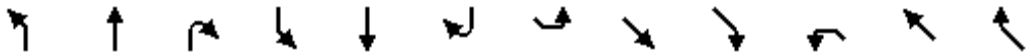
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Essen & I-10 EB

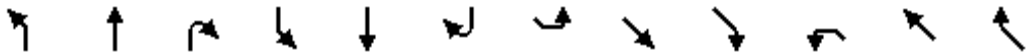
Lane Group	ø1	ø2	ø4
Total Split (s)	55.0	55.0	40.0
Total Split (%)	37%	37%	27%
Maximum Green (s)	49.0	49.0	34.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag		Lead
Lead-Lag Optimize?			
Vehicle Extension (s)	2.5	4.0	4.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	Max	C-Max	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	470	1334	0	0	1444	74	0	0	0	184	0	276
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	450		200	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.993							0.850
Flt Protected	0.950										0.950	
Satd. Flow (prot)	1770	3539	0	0	5050	0	0	0	0	0	1770	1583
Flt Permitted	0.950										0.950	
Satd. Flow (perm)	1770	3539	0	0	5050	0	0	0	0	0	1770	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5							300
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		409			805			936			1390	
Travel Time (s)		6.2			12.2			21.3			31.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	511	1450	0	0	1570	80	0	0	0	200	0	300
Shared Lane Traffic (%)												
Lane Group Flow (vph)	511	1450	0	0	1650	0	0	0	0	0	200	300
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		20			20			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2					1	1	0
Detector Template										Left		
Leading Detector (ft)	45	290			290					20	45	0
Trailing Detector (ft)	-6	284			284					0	-6	0
Detector 1 Position(ft)	-6	-6			-6					0	-6	0
Detector 1 Size(ft)	51	51			51					20	51	20
Detector 1 Type	Cl+Ex	Call			Call					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA			NA					Perm	NA	Free
Protected Phases	1	1 2			2						4	
Permitted Phases										4		Free
Detector Phase	1	1 2			2					4	4	

Lane Group	ø5	ø6	ø8
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	5	6	8
Permitted Phases			
Detector Phase			



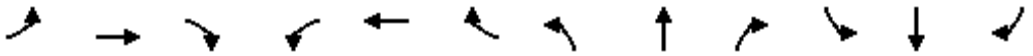
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0				10.0					3.0	3.0	
Minimum Split (s)	9.0				16.0					9.0	9.0	
Total Split (s)	55.0				55.0					40.0	40.0	
Total Split (%)	36.7%				36.7%					26.7%	26.7%	
Maximum Green (s)	49.0				49.0					34.0	34.0	
Yellow Time (s)	5.0				5.0					5.0	5.0	
All-Red Time (s)	1.0				1.0					1.0	1.0	
Lost Time Adjust (s)	0.0				0.0						0.0	
Total Lost Time (s)	6.0				6.0						6.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5				4.0					4.0	4.0	
Minimum Gap (s)	0.2				2.0					0.2	0.2	
Time Before Reduce (s)	0.0				10.0					0.0	0.0	
Time To Reduce (s)	0.0				20.0					0.0	0.0	
Recall Mode	Max				C-Max					Max	Max	
Act Effct Green (s)	49.0	104.0			49.0						34.0	150.0
Actuated g/C Ratio	0.33	0.69			0.33						0.23	1.00
v/c Ratio	0.88	0.59			1.00						0.50	0.19
Control Delay	50.1	4.3			67.8						55.6	0.3
Queue Delay	40.6	0.9			0.0						0.2	0.0
Total Delay	90.6	5.2			67.8						55.8	0.3
LOS	F	A			E						E	A
Approach Delay		27.4			67.8						22.5	
Approach LOS		C			E						C	
Queue Length 50th (ft)	530	226			523						172	0
Queue Length 95th (ft)	#667	187			#699						257	0
Internal Link Dist (ft)		329			725			856			1310	
Turn Bay Length (ft)												
Base Capacity (vph)	578	2453			1653						401	1583
Starvation Cap Reductn	104	659			0						0	0
Spillback Cap Reductn	0	0			0						21	0
Storage Cap Reductn	0	0			0						0	0
Reduced v/c Ratio	1.08	0.81			1.00						0.53	0.19

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 0 (0%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.61			
Intersection Signal Delay: 43.1		Intersection LOS: D	
Intersection Capacity Utilization 81.2%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

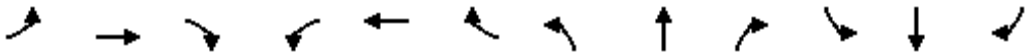
Splits and Phases: 4: Essen & I-10 WB

Lane Group	ø5	ø6	ø8
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	25.0	100.0	25.0
Total Split (%)	17%	67%	17%
Maximum Green (s)	19.0	94.0	19.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lead
Lead-Lag Optimize?			
Vehicle Extension (s)	2.5	4.0	2.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	C-Max	Max	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary



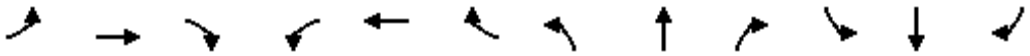
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	71	1	51	10	0	29	21	2163	3	10	2077	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		0	300		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91
Frt		0.853			0.900						0.996	
Flt Protected	0.950				0.987		0.950			0.950		
Satd. Flow (prot)	1770	1589	0	0	1655	0	1770	3539	0	1770	5065	0
Flt Permitted	0.818				0.906		0.048			0.048		
Satd. Flow (perm)	1524	1589	0	0	1519	0	89	3539	0	89	5065	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		55			109						5	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		456			896			891			190	
Travel Time (s)		10.4			20.4			13.5			2.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	77	1	55	11	0	32	23	2351	3	11	2258	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	77	56	0	0	43	0	23	2354	0	11	2321	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45		45	290		45	290	
Trailing Detector (ft)	-6	-6		0	-6		-6	284		-6	284	
Detector 1 Position(ft)	-6	-6		0	-6		-6	-6		-6	-6	
Detector 1 Size(ft)	51	51		20	51		51	51		51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		1	6		5	2	



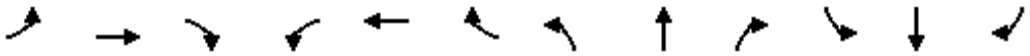
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	21.0		11.0	21.0	
Total Split (s)	35.0	35.0		35.0	35.0		15.0	100.0		15.0	100.0	
Total Split (%)	23.3%	23.3%		23.3%	23.3%		10.0%	66.7%		10.0%	66.7%	
Maximum Green (s)	29.0	29.0		29.0	29.0		9.0	94.0		9.0	94.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.5		2.0	2.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		Max	Min		None	C-Min	
Act Effct Green (s)	12.5	12.5			12.5		121.0	121.0		89.3	89.3	
Actuated g/C Ratio	0.08	0.08			0.08		0.81	0.81		0.60	0.60	
v/c Ratio	0.61	0.31			0.19		0.06	0.83		0.10	0.77	
Control Delay	85.3	19.2			1.9		6.0	8.3		12.2	20.0	
Queue Delay	0.0	0.0			0.0		0.0	2.3		0.0	0.0	
Total Delay	85.3	19.2			1.9		6.0	10.7		12.2	20.0	
LOS	F	B			A		A	B		B	C	
Approach Delay		57.5			1.9			10.6			20.0	
Approach LOS		E			A			B			B	
Queue Length 50th (ft)	74	1			0		1	434		4	597	
Queue Length 95th (ft)	127	44			0		m5	m492		m6	736	
Internal Link Dist (ft)		376			816			811			110	
Turn Bay Length (ft)							150			300		
Base Capacity (vph)	294	351			381		410	2853		153	3175	
Starvation Cap Reductn	0	0			0		0	359		0	19	
Spillback Cap Reductn	0	0			0		0	0		0	0	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.26	0.16			0.11		0.06	0.94		0.07	0.74	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 71 (47%), Referenced to phase 2:SBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 16.3		Intersection LOS: B	
Intersection Capacity Utilization 80.5%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Essen & Margaret Ann



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	5	5	63	5	60	0	2166	97	76	2077	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	100		0	150		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			150		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	0.91	0.91
Frt		0.964				0.850		0.994			0.999	
Flt Protected		0.977			0.955					0.950		
Satd. Flow (prot)	0	1754	0	0	1779	1583	0	5055	0	1770	5080	0
Flt Permitted		0.842			0.727					0.950		
Satd. Flow (perm)	0	1512	0	0	1354	1583	0	5055	0	1770	5080	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		5						8			1	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		496			1336			490			721	
Travel Time (s)		11.3			30.4			7.4			10.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	5	5	68	5	65	0	2354	105	83	2258	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	19	0	0	73	65	0	2459	0	83	2270	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45	45	45	290		45	290	
Trailing Detector (ft)	0	-6		0	-6	-6	0	284		-6	284	
Detector 1 Position(ft)	0	-6		0	-6	-6	0	-6		-6	-6	
Detector 1 Size(ft)	20	51		20	51	51	45	51		51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA	pt+ov		NA		Prot	NA	
Protected Phases		8			4	4 5		6		5	2	
Permitted Phases	8			4			6					
Detector Phase	8	8		4	4	4 5	6	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		15.0	15.0		3.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		21.0	21.0		9.0	21.0	
Total Split (s)	31.0	31.0		31.0	31.0		99.0	99.0		20.0	119.0	
Total Split (%)	20.7%	20.7%		20.7%	20.7%		66.0%	66.0%		13.3%	79.3%	
Maximum Green (s)	25.0	25.0		25.0	25.0		93.0	93.0		14.0	113.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0			6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		7.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		2.0	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		10.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		20.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		C-Min	C-Min		None	Min	
Act Effct Green (s)		12.7			12.7	29.8		108.2		11.1	125.3	
Actuated g/C Ratio		0.08			0.08	0.20		0.72		0.07	0.84	
v/c Ratio		0.14			0.64	0.21		0.67		0.63	0.53	
Control Delay		51.3			90.0	49.4		14.0		90.1	3.6	
Queue Delay		0.0			0.0	0.0		0.3		0.0	0.2	
Total Delay		51.3			90.0	49.4		14.4		90.1	3.8	
LOS		D			F	D		B		F	A	
Approach Delay		51.3			70.9			14.4			6.8	
Approach LOS		D			E			B			A	
Queue Length 50th (ft)		13			70	54		400		84	203	
Queue Length 95th (ft)		40			123	92		287		m143	87	
Internal Link Dist (ft)		416			1256			410			641	
Turn Bay Length (ft)						100				150		
Base Capacity (vph)		256			225	344		3649		165	4244	
Starvation Cap Reductn		0			0	0		539		0	792	
Spillback Cap Reductn		0			0	4		395		0	252	
Storage Cap Reductn		0			0	0		0		0	0	
Reduced v/c Ratio		0.07			0.32	0.19		0.79		0.50	0.66	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 88 (59%), Referenced to phase 6:NBTL, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 12.5		Intersection LOS: B	
Intersection Capacity Utilization 80.8%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

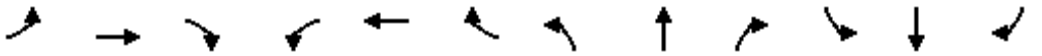
Splits and Phases: 9: Essen & Essen Park

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	312	227	1411	199	136	1206
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		0	150	
Storage Lanes	2	1		0	1	
Taper Length (ft)	25				100	
Lane Util. Factor	0.97	1.00	0.91	0.91	1.00	0.95
Frt		0.850	0.981			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	4989	0	1770	3539
Flt Permitted	0.950				0.099	
Satd. Flow (perm)	3433	1583	4989	0	184	3539
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			33			
Link Speed (mph)	30		45			45
Link Distance (ft)	1306		805			993
Travel Time (s)	29.7		12.2			15.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	339	247	1534	216	148	1311
Shared Lane Traffic (%)						
Lane Group Flow (vph)	339	247	1750	0	148	1311
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	52		20			25
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2		1	2
Detector Template						
Leading Detector (ft)	45	45	290		45	290
Trailing Detector (ft)	-6	-6	284		-6	284
Detector 1 Position(ft)	-6	-6	-6		-6	-6
Detector 1 Size(ft)	51	51	51		51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			284			284
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	pt+ov	NA		pm+pt	NA
Protected Phases	4	4 5	6		5	2
Permitted Phases					2	
Detector Phase	4	4 5	6		5	2

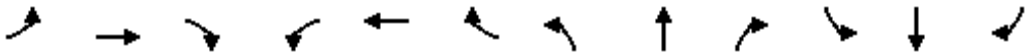
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	3.0		15.0		5.0	15.0
Minimum Split (s)	9.0		21.0		11.0	21.0
Total Split (s)	30.0		101.0		19.0	120.0
Total Split (%)	20.0%		67.3%		12.7%	80.0%
Maximum Green (s)	24.0		95.0		13.0	114.0
Yellow Time (s)	5.0		5.0		5.0	5.0
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	6.0		6.0		6.0	6.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0		5.0		2.0	5.0
Minimum Gap (s)	0.2		3.0		0.2	3.0
Time Before Reduce (s)	0.0		15.0		0.0	15.0
Time To Reduce (s)	0.0		15.0		0.0	15.0
Recall Mode	None		C-Min		None	Min
Act Effct Green (s)	19.0	38.0	100.0		119.0	119.0
Actuated g/C Ratio	0.13	0.25	0.67		0.79	0.79
v/c Ratio	0.78	0.62	0.52		0.52	0.47
Control Delay	76.0	56.4	14.7		18.5	3.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	76.0	56.4	14.7		18.5	3.1
LOS	E	E	B		B	A
Approach Delay	67.7		14.7			4.6
Approach LOS	E		B			A
Queue Length 50th (ft)	168	216	257		21	103
Queue Length 95th (ft)	215	300	245		79	25
Internal Link Dist (ft)	1226		725			913
Turn Bay Length (ft)		100			150	
Base Capacity (vph)	549	453	3336		283	2807
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.62	0.55	0.52		0.52	0.47

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 4 (3%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 19.0		Intersection LOS: B	
Intersection Capacity Utilization 63.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 17: Essen & United Plaza South



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	757	91	96	109	85	206	78	1224	56	270	1338	530
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	425		0	0		280	150		0	550		300
Storage Lanes	1		1	0		1	1		0	1		1
Taper Length (ft)	100			200			25			100		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	1.00
Frt			0.850			0.850		0.993				0.850
Flt Protected	0.950	0.962			0.973		0.950			0.950		
Satd. Flow (prot)	1681	1702	1583	0	1812	1583	1770	3514	0	1770	5085	1583
Flt Permitted	0.950	0.962			0.973		0.082			0.068		
Satd. Flow (perm)	1681	1702	1583	0	1812	1583	153	3514	0	127	5085	1583
Right Turn on Red			Yes			No			Yes			No
Satd. Flow (RTOR)			113					3				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1908			1396			1335			891	
Travel Time (s)		43.4			31.7			20.2			13.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	823	99	104	118	92	224	85	1330	61	293	1454	576
Shared Lane Traffic (%)	44%											
Lane Group Flow (vph)	461	461	104	0	210	224	85	1391	0	293	1454	576
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		45			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	0	1	1	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	0	45	45	45	45	290		45	290	0
Trailing Detector (ft)	-6	-6	0	0	-6	-6	-6	284		-6	284	0
Detector 1 Position(ft)	-6	-6	0	0	-6	-6	-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	20	45	51	51	51	51		51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Call
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	Perm	Split	NA	pt+ov	pm+pt	NA		pm+pt	NA	pt+ov
Protected Phases	8	8		4	4	4 5	1	6		5	2	2 8
Permitted Phases			8				6			2		
Detector Phase	8	8	8	4	4	4 5	1	6		5	2	2 8

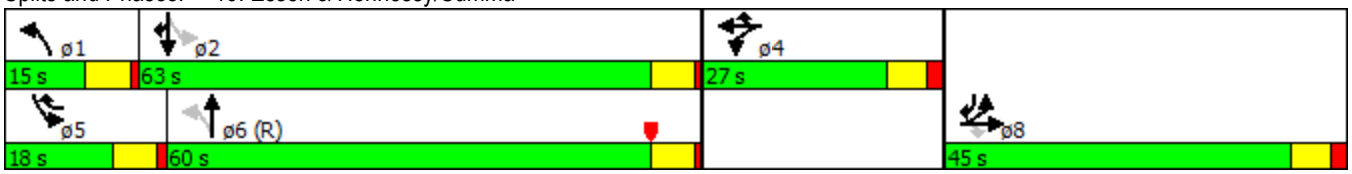


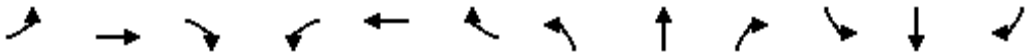
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.5	14.5	14.5	14.5	14.5		9.0	21.0		9.0	21.0	
Total Split (s)	45.0	45.0	45.0	27.0	27.0		15.0	60.0		18.0	63.0	
Total Split (%)	30.0%	30.0%	30.0%	18.0%	18.0%		10.0%	40.0%		12.0%	42.0%	
Maximum Green (s)	38.5	38.5	38.5	20.5	20.5		9.0	54.0		12.0	57.0	
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5	6.5		6.5		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		2.0	2.0		2.0	2.5	
Minimum Gap (s)	0.2	0.2	0.2	0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None	None	None	None		None	C-Min		None	Min	
Act Effct Green (s)	38.5	38.5	38.5		19.8	31.3	62.6	54.7		70.8	58.8	97.8
Actuated g/C Ratio	0.26	0.26	0.26		0.13	0.21	0.42	0.36		0.47	0.39	0.65
v/c Ratio	1.07	1.06	0.21		0.88	0.68	0.57	1.08		1.53	0.73	0.56
Control Delay	115.0	111.4	6.9		97.9	39.8	40.7	84.0		294.8	17.1	14.3
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	6.8		0.0	0.0	0.0
Total Delay	115.0	111.4	6.9		97.9	39.8	40.7	90.9		294.8	17.1	14.3
LOS	F	F	A		F	D	D	F		F	B	B
Approach Delay		102.4			67.9			88.0			51.4	
Approach LOS		F			E			F			D	
Queue Length 50th (ft)	~524	~517	0		204	110	31	~816		~344	413	527
Queue Length 95th (ft)	#758	#752	41		#345	174	m73	m#849		#541	421	614
Internal Link Dist (ft)		1828			1316			1255			811	
Turn Bay Length (ft)	425					280	150			550		300
Base Capacity (vph)	431	436	490		247	337	162	1283		191	1994	1032
Starvation Cap Reductn	0	0	0		0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0		0	0	0	91		0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0		0	0	0
Reduced v/c Ratio	1.07	1.06	0.21		0.85	0.66	0.52	1.17		1.53	0.73	0.56

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 55 (37%), Referenced to phase 6:NBTL, Start of Yellow			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.53			
Intersection Signal Delay: 73.0		Intersection LOS: E	
Intersection Capacity Utilization 96.0%		ICU Level of Service F	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

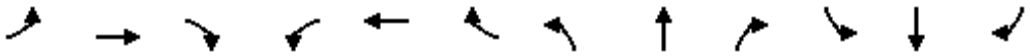
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Essen & Hennessy/Summa





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	197	130	183	73	92	75	142	1086	84	95	1298	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	150		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91
Frt		0.912			0.932			0.989			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1699	0	1770	1736	0	1770	3500	0	1770	5004	0
Flt Permitted	0.410			0.160			0.110			0.196		
Satd. Flow (perm)	764	1699	0	298	1736	0	205	3500	0	365	5004	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		41			24			11			28	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1062			1416			1475			1335	
Travel Time (s)		24.1			32.2			22.3			20.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	214	141	199	79	100	82	154	1180	91	103	1411	163
Shared Lane Traffic (%)												
Lane Group Flow (vph)	214	340	0	79	182	0	154	1271	0	103	1574	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template												
Leading Detector (ft)	45	45		45	45		45	290		45	290	
Trailing Detector (ft)	-6	-6		-6	-6		-6	284		-6	284	
Detector 1 Position(ft)	-6	-6		-6	-6		-6	-6		-6	-6	
Detector 1 Size(ft)	51	51		51	51		51	51		51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		1	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		2.0	15.0		3.0	15.0	
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	21.0		9.0	21.0	
Total Split (s)	30.0	30.0		30.0	30.0		15.0	105.0		15.0	105.0	
Total Split (%)	20.0%	20.0%		20.0%	20.0%		10.0%	70.0%		10.0%	70.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0		9.0	99.0		9.0	99.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Act Effct Green (s)	25.0	25.0		25.0	25.0		99.0	99.0		99.3	99.3	
Actuated g/C Ratio	0.17	0.17		0.17	0.17		0.66	0.66		0.66	0.66	
v/c Ratio	1.69	1.07		1.61	0.59		0.68	0.55		0.32	0.47	
Control Delay	376.3	121.5		389.2	58.6		27.3	14.6		6.3	2.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	376.3	121.5		389.2	58.6		27.3	14.6		6.3	2.9	
LOS	F	F		F	E		C	B		A	A	
Approach Delay		219.9			158.6			15.9			3.1	
Approach LOS		F			F			B			A	
Queue Length 50th (ft)	~305	~333		~110	145		53	325		7	36	
Queue Length 95th (ft)	#477	#539		#226	230		99	381		m12	50	
Internal Link Dist (ft)		982			1336			1395			1255	
Turn Bay Length (ft)	225			150			150			150		
Base Capacity (vph)	127	317		49	309		229	2313		326	3323	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.69	1.07		1.61	0.59		0.67	0.55		0.32	0.47	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 72 (48%), Referenced to phase 6:NBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.69			
Intersection Signal Delay: 48.8		Intersection LOS: D	
Intersection Capacity Utilization 78.4%		ICU Level of Service D	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

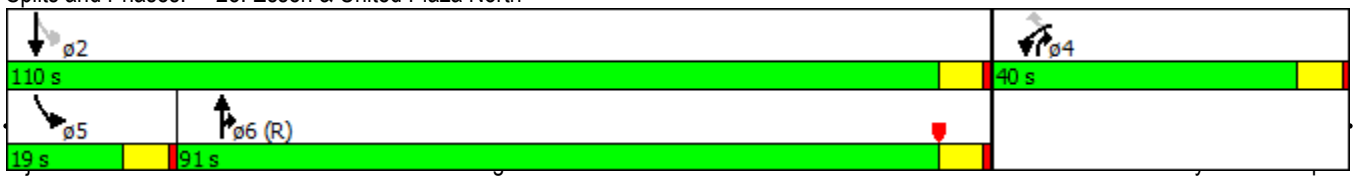
Splits and Phases: 22: Essen & Picardy

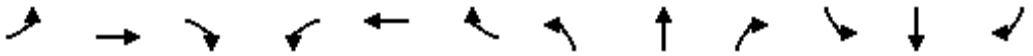
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	86	173	1539	83	162	1069
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	125		125	125	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.88	0.91	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2787	5085	1583	1770	3539
Flt Permitted	0.950				0.110	
Satd. Flow (perm)	1770	2787	5085	1583	205	3539
Right Turn on Red		Yes		No		
Satd. Flow (RTOR)		188				
Link Speed (mph)	30		45			45
Link Distance (ft)	1179		993			571
Travel Time (s)	26.8		15.0			8.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	93	188	1673	90	176	1162
Shared Lane Traffic (%)						
Lane Group Flow (vph)	93	188	1673	90	176	1162
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	42		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template						
Leading Detector (ft)	45	45	290	45	45	290
Trailing Detector (ft)	-6	-6	284	-6	-6	284
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			284			284
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	pt+ov	pm+pt	NA
Protected Phases	4		6	6 4	5	2
Permitted Phases		4			2	
Detector Phase	4	4	6	6 4	5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	5.0	5.0	15.0		3.0	15.0
Minimum Split (s)	11.0	11.0	21.0		9.0	21.0
Total Split (s)	40.0	40.0	91.0		19.0	110.0
Total Split (%)	26.7%	26.7%	60.7%		12.7%	73.3%
Maximum Green (s)	34.0	34.0	85.0		13.0	104.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0
Recall Mode	None	None	C-Min		None	Min
Act Effct Green (s)	12.5	12.5	109.5	128.0	125.5	125.5
Actuated g/C Ratio	0.08	0.08	0.73	0.85	0.84	0.84
v/c Ratio	0.63	0.47	0.45	0.07	0.64	0.39
Control Delay	84.6	11.6	7.0	2.6	22.6	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay	84.6	11.6	7.0	2.6	22.6	4.2
LOS	F	B	A	A	C	A
Approach Delay	35.8		6.8			6.6
Approach LOS	D		A			A
Queue Length 50th (ft)	90	0	261	4	26	139
Queue Length 95th (ft)	148	40	254	33	96	337
Internal Link Dist (ft)	1099		913			491
Turn Bay Length (ft)		125		125	125	
Base Capacity (vph)	401	777	3711	1547	315	2960
Starvation Cap Reductn	0	0	0	0	0	832
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.24	0.45	0.06	0.56	0.55

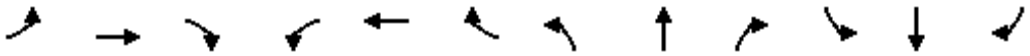
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 15 (10%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 9.1		Intersection LOS: A	
Intersection Capacity Utilization 58.5%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 28: Essen & United Plaza North





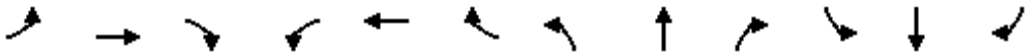
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	46	1	22	75	3	147	9	1648	55	165	1134	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		100	175		0	150		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	0.95
Frt		0.856				0.850		0.995			0.995	
Flt Protected	0.950				0.954		0.950			0.950		
Satd. Flow (prot)	1770	1595	0	0	1777	1583	1770	5060	0	1770	3522	0
Flt Permitted	0.677				0.715		0.218			0.076		
Satd. Flow (perm)	1261	1595	0	0	1332	1583	406	5060	0	142	3522	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		24						6			4	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		757			843			571			472	
Travel Time (s)		17.2			19.2			8.7			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	50	1	24	82	3	160	10	1791	60	179	1233	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	50	25	0	0	85	160	10	1851	0	179	1275	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290		45	390	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284		-6	384	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6		-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51		51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			384	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		8		7	4	4 5	1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4	4 5	1	6		5	2	



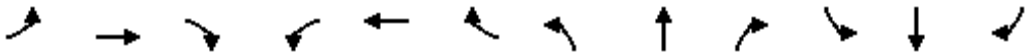
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	31.0		11.0	31.0	
Total Split (s)	18.0	18.0		18.0	36.0		14.0	98.0		16.0	100.0	
Total Split (%)	12.0%	12.0%		12.0%	24.0%		9.3%	65.3%		10.7%	66.7%	
Maximum Green (s)	12.0	12.0		12.0	30.0		8.0	92.0		10.0	94.0	
Yellow Time (s)	4.5	4.5		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		2.0	2.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lead		Lag			Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	3.0		0.2	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	17.0	17.0			17.0	38.6	99.4	99.4		115.8	115.8	
Actuated g/C Ratio	0.11	0.11			0.11	0.26	0.66	0.66		0.77	0.77	
v/c Ratio	0.35	0.12			0.57	0.39	0.03	0.55		0.64	0.47	
Control Delay	66.7	21.2			76.6	47.3	8.6	9.3		38.9	8.0	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.1		0.0	0.4	
Total Delay	66.7	21.2			76.6	47.3	8.6	9.4		38.9	8.4	
LOS	E	C			E	D	A	A		D	A	
Approach Delay		51.6			57.5			9.4			12.1	
Approach LOS		D			E			A			B	
Queue Length 50th (ft)	46	1			80	131	2	148		90	154	
Queue Length 95th (ft)	87	30			135	180	m5	153		221	367	
Internal Link Dist (ft)		677			763			491			392	
Turn Bay Length (ft)	75					100	175			150		
Base Capacity (vph)	144	203			266	411	363	3386		279	2744	
Starvation Cap Reductn	0	0			0	0	0	98		0	808	
Spillback Cap Reductn	0	0			0	0	0	326		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.35	0.12			0.32	0.39	0.03	0.60		0.64	0.66	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 0 (0%), Referenced to phase 2:SBTL, Start of Yellow			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 14.6		Intersection LOS: B	
Intersection Capacity Utilization 68.2%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 29: Essen & Sholar/Archives



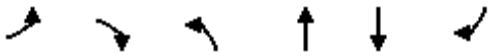
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	282	0	75	0	0	0	0	1156	685	0	1263	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.935							0.850			
Flt Protected	0.950	0.972										
Satd. Flow (prot)	1681	1608	0	0	0	0	0	3539	1583	0	3539	0
Flt Permitted	0.950	0.972										
Satd. Flow (perm)	1681	1608	0	0	0	0	0	3539	1583	0	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29							297			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		995			508			472			1384	
Travel Time (s)		22.6			11.5			7.2			21.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	307	0	82	0	0	0	0	1257	745	0	1373	0
Shared Lane Traffic (%)	35%											
Lane Group Flow (vph)	200	189	0	0	0	0	0	1257	745	0	1373	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1						2	1		2	
Detector Template												
Leading Detector (ft)	45	45						290	45		290	
Trailing Detector (ft)	-6	-6						284	-6		284	
Detector 1 Position(ft)	-6	-6						-6	-6		-6	
Detector 1 Size(ft)	51	51						51	51		51	
Detector 1 Type	Cl+Ex	Cl+Ex						Call	Cl+Ex		Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0		0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA						NA	Free		NA	
Protected Phases		8						6			2	
Permitted Phases	8								Free			
Detector Phase	8	8						6			2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	10.0	10.0						25.0			25.0	
Minimum Split (s)	17.0	17.0						32.0			32.0	
Total Split (s)	45.0	45.0						105.0			105.0	
Total Split (%)	30.0%	30.0%						70.0%			70.0%	
Maximum Green (s)	38.0	38.0						98.0			98.0	
Yellow Time (s)	5.0	5.0						5.0			5.0	
All-Red Time (s)	2.0	2.0						2.0			2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	7.0	7.0						7.0			7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5						5.0			5.0	
Minimum Gap (s)	0.2	0.2						3.0			3.0	
Time Before Reduce (s)	0.0	0.0						15.0			15.0	
Time To Reduce (s)	0.0	0.0						15.0			15.0	
Recall Mode	None	None						C-Max			Max	
Act Effct Green (s)	22.9	22.9						113.1	150.0		113.1	
Actuated g/C Ratio	0.15	0.15						0.75	1.00		0.75	
v/c Ratio	0.78	0.70						0.47	0.47		0.51	
Control Delay	80.8	63.9						10.0	2.4		8.8	
Queue Delay	0.0	0.2						0.5	0.0		0.0	
Total Delay	80.8	64.1						10.6	2.4		8.8	
LOS	F	E						B	A		A	
Approach Delay		72.7						7.5			8.8	
Approach LOS		E						A			A	
Queue Length 50th (ft)	201	158						393	35		254	
Queue Length 95th (ft)	282	237						146	109		371	
Internal Link Dist (ft)		915			428			392			1304	
Turn Bay Length (ft)	400											
Base Capacity (vph)	425	429						2667	1583		2667	
Starvation Cap Reductn	0	0						877	0		0	
Spillback Cap Reductn	0	23						0	0		0	
Storage Cap Reductn	0	0						0	0		0	
Reduced v/c Ratio	0.47	0.47						0.70	0.47		0.51	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 15 (10%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 14.7		Intersection LOS: B	
Intersection Capacity Utilization 56.7%		ICU Level of Service B	
Analysis Period (min) 15			

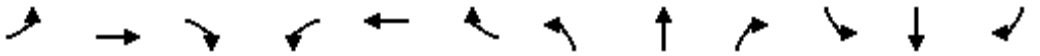
Splits and Phases: 32: Essen & I-12 EB



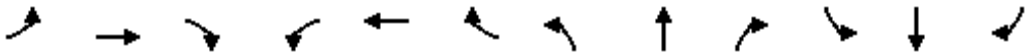
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	28	34	28	2235	2111	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	50			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.91	0.91
Frt		0.850			0.998	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	5075	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	3539	5075	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	418			190	490	
Travel Time (s)	9.5			2.9	7.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	37	30	2429	2295	37
Shared Lane Traffic (%)						
Lane Group Flow (vph)	30	37	30	2429	2332	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 71.8%		ICU Level of Service C	
Analysis Period (min) 15			

M.4 2015 EXISTING NOON – BLUEBONNET BOULEVARD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	290	682	84	275	637	209	210	1163	151	374	919	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		250	325		375	350		0	250		150
Storage Lanes	2		1	2		1	2		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Frt			0.850			0.850		0.983				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3479	0	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3479	0	3433	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								10				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		2445			3864			2201			709	
Travel Time (s)		37.0			58.5			33.3			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	305	718	88	289	671	220	221	1224	159	394	967	242
Shared Lane Traffic (%)												
Lane Group Flow (vph)	305	718	88	289	671	220	221	1383	0	394	967	242
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45	45	290		45	290	45
Trailing Detector (ft)	-6	284	-6	-6	284	-6	-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6	-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51	51	51		51	51	51
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		284			284			284			284	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Extend			Extend			Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8		7	4	4 5
Permitted Phases												
Detector Phase	5	2	2 3	1	6	6 7	3	8		7	4	4 5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	10.0		4.0	10.0	
Minimum Split (s)	11.0	34.5		11.0	37.5		11.0	41.0		11.0	41.0	
Total Split (s)	26.0	37.0		26.0	37.0		33.0	60.0		27.0	54.0	
Total Split (%)	17.3%	24.7%		17.3%	24.7%		22.0%	40.0%		18.0%	36.0%	
Maximum Green (s)	19.0	30.5		19.0	30.5		26.0	53.0		20.0	47.0	
Yellow Time (s)	5.0	4.5		5.0	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	6.5		7.0	6.5		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.3		3.0	4.3		3.0	3.9		3.0	3.9	
Minimum Gap (s)	0.2	2.2		0.2	2.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	15.0		0.0	15.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0		0.0	10.0		0.0	10.0	
Recall Mode	None	Min		None	Min		None	Min		None	C-Min	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		23.0			26.0			29.0			29.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	17.4	31.8	61.6	17.1	31.5	58.0	29.2	54.0		19.6	44.4	61.8
Actuated g/C Ratio	0.12	0.21	0.41	0.11	0.21	0.39	0.19	0.36		0.13	0.30	0.41
v/c Ratio	0.76	0.96	0.14	0.74	0.90	0.36	0.33	1.10		0.88	0.92	0.37
Control Delay	77.3	81.6	16.5	76.1	74.2	34.9	54.6	101.0		91.9	54.8	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0		0.0	0.0	0.0
Total Delay	77.3	81.6	16.5	76.1	74.2	35.5	54.6	101.0		91.9	54.8	13.7
LOS	E	F	B	E	E	D	D	F		F	D	B
Approach Delay		75.3			67.5			94.6			57.7	
Approach LOS		E			E			F			E	
Queue Length 50th (ft)	150	370	35	142	342	153	98	~815		177	342	81
Queue Length 95th (ft)	203	#513	62	192	#461	228	142	#958		#278	494	137
Internal Link Dist (ft)		2365			3784			2121			629	
Turn Bay Length (ft)	440		250	325		375	350			250		150
Base Capacity (vph)	434	751	649	434	742	617	668	1259		457	1108	696
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	153	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.70	0.96	0.14	0.67	0.90	0.47	0.33	1.10		0.86	0.87	0.35

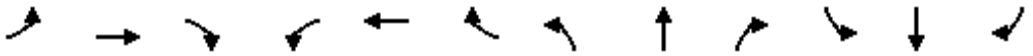
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 0 (0%), Referenced to phase 4:SBT, Start of Yellow			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.10			
Intersection Signal Delay: 74.1		Intersection LOS: E	
Intersection Capacity Utilization 97.2%		ICU Level of Service F	

Analysis Period (min) 15

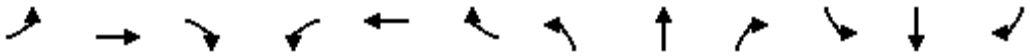
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Bluebonnet & Perkins



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	143	20	48	71	12	178	32	1549	46	315	1361	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		125	160		160	175		0
Storage Lanes	1		0	0		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.894				0.850			0.850		0.990	
Flt Protected	0.950				0.959		0.950			0.950		
Satd. Flow (prot)	1770	1665	0	0	1786	1583	1770	3539	1583	3433	3504	0
Flt Permitted	0.700				0.561		0.950			0.950		
Satd. Flow (perm)	1304	1665	0	0	1045	1583	1770	3539	1583	3433	3504	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		51									9	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		511			1048			709			2556	
Travel Time (s)		11.6			23.8			10.7			38.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	151	21	51	75	13	187	34	1631	48	332	1433	101
Shared Lane Traffic (%)												
Lane Group Flow (vph)	151	72	0	0	88	187	34	1631	48	332	1534	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290	45	45	290	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284	-6	-6	284	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6	-6	-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	
Protected Phases		8		7	4	4 5	1	6	6 7	5	2	
Permitted Phases	8			4								
Detector Phase	8	8		7	4	4 5	1	6	6 7	5	2	

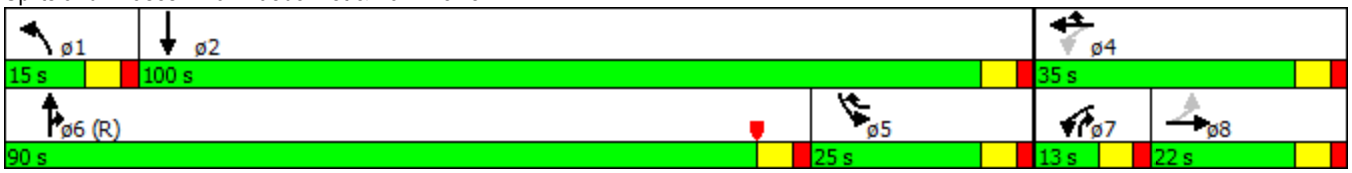


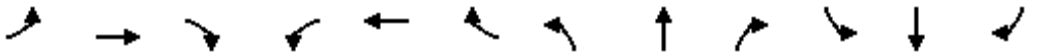
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		3.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	11.0	11.0		9.0	11.0		9.0	21.0		9.0	21.0	
Total Split (s)	22.0	22.0		13.0	35.0		15.0	90.0		25.0	100.0	
Total Split (%)	14.7%	14.7%		8.7%	23.3%		10.0%	60.0%		16.7%	66.7%	
Maximum Green (s)	16.0	16.0		7.0	29.0		9.0	84.0		19.0	94.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		1.5	2.0		1.5	4.0		1.5	4.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	23.0	23.0			32.0	55.5	6.8	82.5	87.5	17.5	95.2	
Actuated g/C Ratio	0.15	0.15			0.21	0.37	0.05	0.55	0.58	0.12	0.63	
v/c Ratio	0.76	0.24			0.36	0.32	0.43	0.84	0.05	0.83	0.69	
Control Delay	83.7	24.8			54.1	35.5	66.4	44.9	10.4	82.7	20.5	
Queue Delay	0.0	0.0			0.0	0.0	0.0	1.8	0.0	0.0	0.0	
Total Delay	83.7	24.8			54.1	35.5	66.4	46.7	10.4	82.7	20.5	
LOS	F	C			D	D	E	D	B	F	C	
Approach Delay		64.7			41.4			46.1			31.6	
Approach LOS		E			D			D			C	
Queue Length 50th (ft)	139	17			68	120	33	671	17	164	561	
Queue Length 95th (ft)	#307	69			129	201	m38	m517	m18	220	576	
Internal Link Dist (ft)		431			968			629			2476	
Turn Bay Length (ft)	100					125	160		160	175		
Base Capacity (vph)	200	298			246	567	106	2014	975	436	2280	
Starvation Cap Reductn	0	0			0	0	0	226	0	0	0	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.76	0.24			0.36	0.33	0.32	0.91	0.05	0.76	0.67	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 20 (13%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 40.1		Intersection LOS: D	
Intersection Capacity Utilization 81.4%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

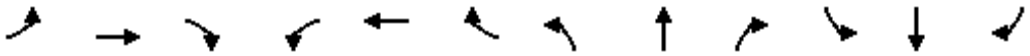
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Bluebonnet & Park Rowe





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	176	14	86	23	6	8	52	1867	8	18	1634	143
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	475		475	50		0	425		0	130		130
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.914			0.999				0.850
Flt Protected	0.950	0.959		0.950			0.950			0.950		
Satd. Flow (prot)	1681	1697	1583	1770	1703	0	1770	3536	0	1770	3539	1583
Flt Permitted	0.950	0.959		0.950			0.950			0.950		
Satd. Flow (perm)	1681	1697	1583	1770	1703	0	1770	3536	0	1770	3539	1583
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)					8							
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1004			740			2556			469	
Travel Time (s)		22.8			16.8			38.7			7.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	185	15	91	24	6	8	55	1965	8	19	1720	151
Shared Lane Traffic (%)	46%											
Lane Group Flow (vph)	100	100	91	24	14	0	55	1973	0	19	1720	151
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	45	45	45		45	290		45	290	45
Trailing Detector (ft)	-6	-6	-6	-6	-6		-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6		-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51		51	51		51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA		Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4		1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4		1	6		5	2	2 8



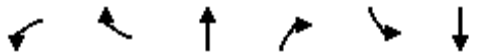
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.5	25.5		8.5	25.5	
Total Split (s)	22.0	22.0		19.5	19.5		13.5	65.0		13.5	65.0	
Total Split (%)	18.3%	18.3%		16.3%	16.3%		11.3%	54.2%		11.3%	54.2%	
Maximum Green (s)	17.0	17.0		14.5	14.5		8.0	59.5		8.0	59.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	6.0		3.0	6.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	15.2	15.2	29.0	9.3	9.3		8.3	79.8		6.8	71.3	88.2
Actuated g/C Ratio	0.13	0.13	0.24	0.08	0.08		0.07	0.66		0.06	0.59	0.74
v/c Ratio	0.47	0.47	0.24	0.18	0.10		0.45	0.84		0.19	0.82	0.13
Control Delay	55.0	54.8	36.7	54.0	35.2		65.2	23.7		63.9	13.9	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.2		0.0	0.0	0.0
Total Delay	55.0	54.8	36.7	54.0	35.2		65.2	23.9		63.9	13.9	3.0
LOS	D	D	D	D	D		E	C		E	B	A
Approach Delay		49.2			47.1			25.0			13.5	
Approach LOS		D			D			C			B	
Queue Length 50th (ft)	76	76	56	18	4		41	556		14	162	19
Queue Length 95th (ft)	130	130	99	45	26		86	#1068		m33	#842	33
Internal Link Dist (ft)		924			660			2476			389	
Turn Bay Length (ft)	475		475	50			425			130		130
Base Capacity (vph)	250	252	379	213	212		130	2352		118	2103	1199
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	41		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.40	0.40	0.24	0.11	0.07		0.42	0.85		0.16	0.82	0.13

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 88 (73%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 21.7		Intersection LOS: C	
Intersection Capacity Utilization 72.5%		ICU Level of Service C	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Bluebonnet & Anselmo



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Lane Configurations									
Volume (vph)	364	100	1666	385	46	1431			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	0	100		150	350				
Storage Lanes	2	1		1	1				
Taper Length (ft)	25				25				
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.91			
Frt		0.850		0.850					
Flt Protected	0.950				0.950				
Satd. Flow (prot)	3433	1583	3539	1583	1770	5085			
Flt Permitted	0.950				0.950				
Satd. Flow (perm)	3433	1583	3539	1583	1770	5085			
Right Turn on Red		No		No					
Satd. Flow (RTOR)									
Link Speed (mph)	30		45			45			
Link Distance (ft)	352		390			974			
Travel Time (s)	8.0		5.9			14.8			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95			
Adj. Flow (vph)	383	105	1754	405	48	1506			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	383	105	1754	405	48	1506			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Right	Left	Left			
Median Width(ft)	35		20			20			
Link Offset(ft)	0		0			0			
Crosswalk Width(ft)	16		16			16			
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Turning Speed (mph)	15	9		9	15				
Number of Detectors	1	1	2	1	1	2			
Detector Template									
Leading Detector (ft)	45	45	290	45	45	290			
Trailing Detector (ft)	-6	-6	284	-6	-6	284			
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			
Detector 1 Size(ft)	51	51	51	51	51	51			
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call			
Detector 1 Channel									
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)			284			284			
Detector 2 Size(ft)			6			6			
Detector 2 Type			Extend			Extend			
Detector 2 Channel									
Detector 2 Extend (s)			0.0			0.0			
Turn Type	Prot	pt+ov	NA	pt+ov	Prot	NA			
Protected Phases	4	4 3	1	1 4	3	2	5	7	8
Permitted Phases									
Detector Phase	4	4 3	1	1 4	3	2			

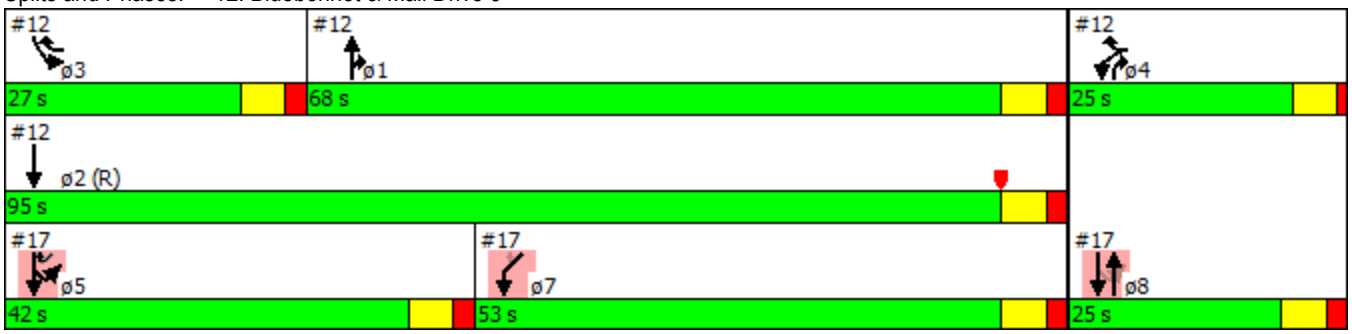
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Switch Phase									
Minimum Initial (s)	4.0		24.0		4.0	34.0	4.0	4.0	34.0
Minimum Split (s)	10.0		30.0		10.0	40.0	10.0	22.0	40.0
Total Split (s)	25.0		68.0		27.0	95.0	42.0	53.0	25.0
Total Split (%)	20.8%		56.7%		22.5%	79.2%	35%	44%	21%
Maximum Green (s)	20.0		62.0		21.0	89.0	36.0	47.0	19.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0			
Total Lost Time (s)	5.0		6.0		6.0	6.0			
Lead/Lag			Lag		Lead		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	
Vehicle Extension (s)	2.5		4.3		2.0	4.3	2.5	3.0	4.3
Minimum Gap (s)	0.2		2.2		0.2	2.2	0.2	3.0	2.2
Time Before Reduce (s)	0.0		20.0		0.0	30.0	0.0	0.0	30.0
Time To Reduce (s)	0.0		15.0		0.0	15.0	0.0	0.0	15.0
Recall Mode	None		Min		None	C-Min	None	None	Min
Walk Time (s)								5.0	
Flash Dont Walk (s)								11.0	
Pedestrian Calls (#/hr)								0	
Act Effct Green (s)	24.5	38.4	70.6	100.1	7.9	84.5			
Actuated g/C Ratio	0.20	0.32	0.59	0.83	0.07	0.70			
v/c Ratio	0.55	0.21	0.84	0.31	0.41	0.42			
Control Delay	35.4	21.3	14.3	1.7	86.1	2.1			
Queue Delay	0.0	0.0	2.6	0.0	0.0	0.0			
Total Delay	35.4	21.3	16.9	1.7	86.1	2.1			
LOS	D	C	B	A	F	A			
Approach Delay	32.4		14.0			4.7			
Approach LOS	C		B			A			
Queue Length 50th (ft)	95	45	613	48	40	47			
Queue Length 95th (ft)	149	m69	73	m6	m69	26			
Internal Link Dist (ft)	272		310			894			
Turn Bay Length (ft)		100		150	350				
Base Capacity (vph)	701	679	2081	1320	309	3771			
Starvation Cap Reductn	0	0	214	0	0	0			
Spillback Cap Reductn	0	0	0	0	0	0			
Storage Cap Reductn	0	0	0	0	0	0			
Reduced v/c Ratio	0.55	0.15	0.94	0.31	0.16	0.40			

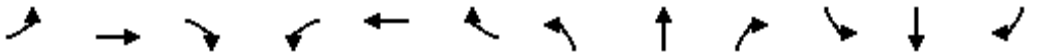
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 108 (90%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 12.7		Intersection LOS: B	
Intersection Capacity Utilization 65.6%		ICU Level of Service C	

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

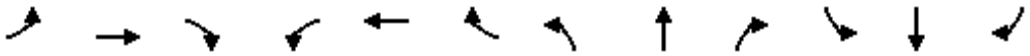
Splits and Phases: 12: Bluebonnet & Mall Drive 3





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	377	145	161	61	155	40	199	1519	48	205	1255	403
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	140		140	200		200	200		160
Storage Lanes	2		0	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		0.921				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3260	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3260	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		169										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1050			403			974			1065	
Travel Time (s)		23.9			9.2			14.8			16.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	397	153	169	64	163	42	209	1599	51	216	1321	424
Shared Lane Traffic (%)												
Lane Group Flow (vph)	397	322	0	64	163	42	209	1599	51	216	1321	424
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			36			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pt+ov
Protected Phases	3	2		9	8	8 6	1	10	10 9	6	5	5 3
Permitted Phases												
Detector Phase	3	2		9	8	8 6	1	10	10 9	6	5	5 3

Lane Group	ø11	ø12	ø13	ø14
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	11	12	13	14
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	21.0		3.0	21.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		11.0	27.0		11.0	27.0	
Total Split (s)	20.0	20.0		20.0	20.0		19.0	59.0		21.0	61.0	
Total Split (%)	16.7%	16.7%		16.7%	16.7%		15.8%	49.2%		17.5%	50.8%	
Maximum Green (s)	14.0	14.0		14.0	14.0		13.0	53.0		15.0	55.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.0		1.0	1.0		3.0	4.3		1.0	4.3	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	28.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	15.0	
Recall Mode	None	None		None	None		None	None		None	C-Min	
Act Effct Green (s)	18.8	18.8		8.7	9.1	26.2	23.4	51.0	65.7	17.1	44.7	69.5
Actuated g/C Ratio	0.16	0.16		0.07	0.08	0.22	0.20	0.42	0.55	0.14	0.37	0.58
v/c Ratio	0.74	0.49		0.26	0.61	0.12	0.61	0.74	0.06	0.44	0.70	0.46
Control Delay	57.7	24.5		45.7	54.6	38.7	38.3	19.9	4.4	62.9	13.1	6.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.7	24.5		45.7	54.6	38.7	38.3	19.9	4.4	62.9	13.1	6.7
LOS	E	C		D	D	D	D	B	A	E	B	A
Approach Delay		42.8			50.0			21.6			17.2	
Approach LOS		D			D			C			B	
Queue Length 50th (ft)	146	53		0	0	32	121	189	6	68	104	64
Queue Length 95th (ft)	#243	106		52	109	70	m170	241	m6	103	52	53
Internal Link Dist (ft)		970			323			894			985	
Turn Bay Length (ft)	150			140		140	200		200	200		160
Base Capacity (vph)	536	652		400	412	417	344	2258	919	504	2330	1052
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.49		0.16	0.40	0.10	0.61	0.71	0.06	0.43	0.57	0.40

Intersection Summary

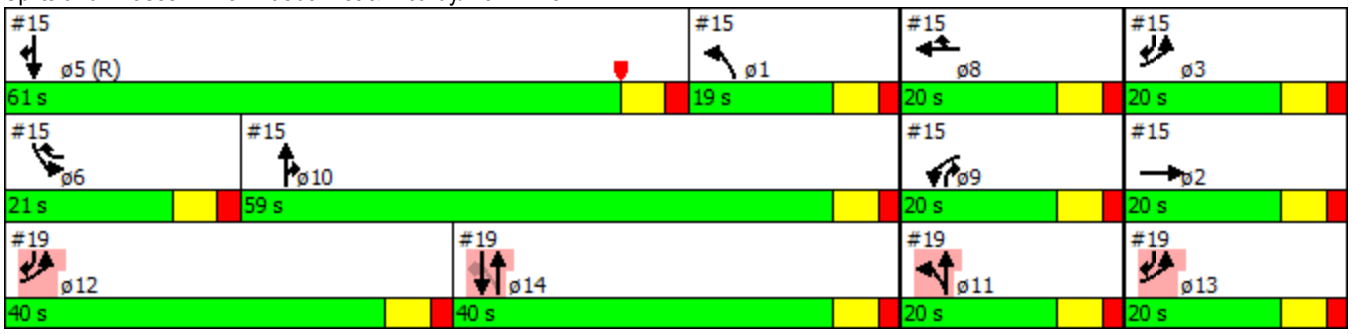
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 79 (66%), Referenced to phase 5:SBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 24.6 Intersection LOS: C
Intersection Capacity Utilization 70.3% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

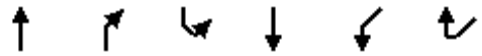
Lane Group	ø11	ø12	ø13	ø14
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	3.0
Minimum Split (s)	10.0	22.0	10.0	9.0
Total Split (s)	20.0	40.0	20.0	40.0
Total Split (%)	17%	33%	17%	33%
Maximum Green (s)	14.0	34.0	14.0	34.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	1.0
Minimum Gap (s)	3.0	3.0	3.0	0.2
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

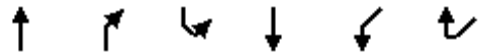
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 15: Bluebonnet & Picardy/Mall Drive 2





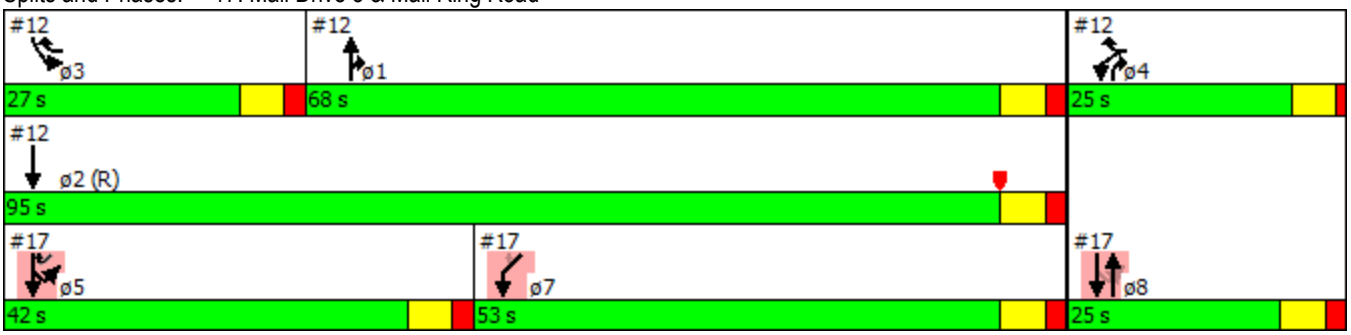
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Lane Configurations										
Volume (vph)	264	193	221	210	186	200				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00				
Frt	0.937					0.850				
Flt Protected			0.950		0.950					
Satd. Flow (prot)	3316	0	1770	1863	1770	1583				
Flt Permitted			0.262		0.950					
Satd. Flow (perm)	3316	0	488	1863	1770	1583				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)	131					99				
Link Speed (mph)	30			30	30					
Link Distance (ft)	797			352	1050					
Travel Time (s)	18.1			8.0	23.9					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Adj. Flow (vph)	287	210	240	228	202	217				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	497	0	240	228	202	217				
Enter Blocked Intersection	No	No	No	No	No	No				
Lane Alignment	Left	Right	Left	Left	Left	Right				
Median Width(ft)	0			12	12					
Link Offset(ft)	0			0	0					
Crosswalk Width(ft)	16			16	16					
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)		9	15		15	9				
Number of Detectors	2		1	2	1	1				
Detector Template	Thru		Left	Thru	Left	Right				
Leading Detector (ft)	100		20	100	20	20				
Trailing Detector (ft)	0		0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0				
Detector 1 Size(ft)	6		20	6	20	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel										
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0				
Detector 2 Position(ft)	94			94						
Detector 2 Size(ft)	6			6						
Detector 2 Type	Cl+Ex			Cl+Ex						
Detector 2 Channel										
Detector 2 Extend (s)	0.0			0.0						
Turn Type	NA		D.P+P	NA	Prot	pm+ov				
Protected Phases	8		5	5 8	7	5	1	2	3	4
Permitted Phases			8			7				
Detector Phase	8		5	5 8	7	5				
Switch Phase										
Minimum Initial (s)	34.0		4.0		4.0	4.0	24.0	34.0	4.0	4.0
Minimum Split (s)	40.0		10.0		22.0	10.0	30.0	40.0	10.0	10.0

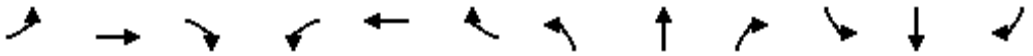


Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Total Split (s)	25.0		42.0		53.0	42.0	68.0	95.0	27.0	25.0
Total Split (%)	20.8%		35.0%		44.2%	35.0%	57%	79%	23%	21%
Maximum Green (s)	19.0		36.0		47.0	36.0	62.0	89.0	21.0	20.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0		2.0	2.0	2.0	2.0	2.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0				
Total Lost Time (s)	6.0		6.0		6.0	6.0				
Lead/Lag			Lead		Lag	Lead	Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	Yes				
Vehicle Extension (s)	4.3		2.5		3.0	2.5	4.3	4.3	2.0	2.5
Minimum Gap (s)	2.2		0.2		3.0	0.2	2.2	2.2	0.2	0.2
Time Before Reduce (s)	30.0		0.0		0.0	0.0	20.0	30.0	0.0	0.0
Time To Reduce (s)	15.0		0.0		0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	Min		None		None	None	Min	C-Min	None	None
Walk Time (s)					5.0					
Flash Dont Walk (s)					11.0					
Pedestrian Calls (#/hr)					0					
Act Effct Green (s)	23.5		40.8	46.8	61.2	84.5				
Actuated g/C Ratio	0.20		0.34	0.39	0.51	0.70				
v/c Ratio	0.66		0.68	0.31	0.22	0.19				
Control Delay	38.3		59.2	36.6	4.3	0.4				
Queue Delay	0.0		0.0	0.3	0.0	0.0				
Total Delay	38.3		59.2	36.8	4.3	0.4				
LOS	D		E	D	A	A				
Approach Delay	38.3			48.3	2.2					
Approach LOS	D			D	A					
Queue Length 50th (ft)	144		163	155	21	0				
Queue Length 95th (ft)	209		232	223	39	0				
Internal Link Dist (ft)	717			272	970					
Turn Bay Length (ft)										
Base Capacity (vph)	755		626	1017	902	1143				
Starvation Cap Reductn	0		0	341	0	0				
Spillback Cap Reductn	0		0	0	0	0				
Storage Cap Reductn	0		0	0	0	0				
Reduced v/c Ratio	0.66		0.38	0.34	0.22	0.19				

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 108 (90%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 30.8		Intersection LOS: C	
Intersection Capacity Utilization 65.9%		ICU Level of Service C	
Analysis Period (min) 15			

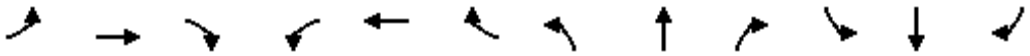
Splits and Phases: 17: Mall Drive 3 & Mall Ring Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	1886	30	216	1857	21	0	0	391	32	4	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		200	300		100	0		0	65		0
Storage Lanes	1		1	2		1	0		2	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.910	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1695	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1695	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82			27			191		6	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1065			834			318			371	
Travel Time (s)		16.1			12.6			7.2			8.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	21	1985	32	227	1955	22	0	0	412	34	4	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	21	1985	32	227	1955	22	0	0	412	34	10	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1			1	1	1	
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45			45	45	45	
Trailing Detector (ft)	-6	284	-6	-6	284	-6			-6	-6	-6	
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			-6	-6	-6	
Detector 1 Size(ft)	51	51	51	51	51	51			51	51	51	
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA	Perm	Prot	NA	custom			Over	Perm	NA	
Protected Phases	1	7		5	4	2			5		2	
Permitted Phases			7			4				2		
Detector Phase	1	7	7	5	4	2			5	2	2	

Lane Group	ø8	ø9	ø10	ø11
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	8	9	10	11
Permitted Phases				
Detector Phase				

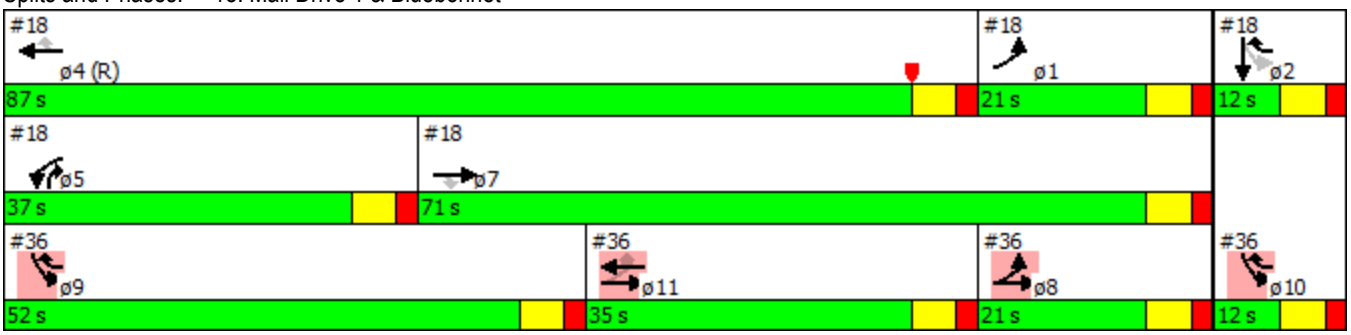


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	14.0	4.0	14.0	4.0			4.0	4.0	4.0	
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	10.0			10.0	10.0	10.0	
Total Split (s)	21.0	71.0	71.0	37.0	87.0	12.0			37.0	12.0	12.0	
Total Split (%)	17.5%	59.2%	59.2%	30.8%	72.5%	10.0%			30.8%	10.0%	10.0%	
Maximum Green (s)	15.0	65.0	65.0	31.0	81.0	6.0			31.0	6.0	6.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0			6.0	6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	4.3	4.3	2.5	4.3	2.0			2.5	2.0	2.0	
Minimum Gap (s)	0.2	2.2	2.2	0.2	2.2	0.2			0.2	0.2	0.2	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	34.0	0.0			0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	15.0	0.0			0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Min	None			None	None	None	
Act Effct Green (s)	9.4	80.0	80.0	15.7	95.9	112.9			15.7	6.2	6.2	
Actuated g/C Ratio	0.08	0.67	0.67	0.13	0.80	0.94			0.13	0.05	0.05	
v/c Ratio	0.15	0.59	0.03	0.50	0.48	0.01			0.78	0.37	0.11	
Control Delay	48.1	5.7	0.2	41.3	10.9	0.1			45.0	67.1	40.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Delay	48.1	5.7	0.2	41.3	10.9	0.1			45.0	67.1	40.3	
LOS	D	A	A	D	B	A			D	E	D	
Approach Delay		6.1			13.9						61.0	
Approach LOS		A			B						E	
Queue Length 50th (ft)	17	130	0	76	348	0			104	26	3	
Queue Length 95th (ft)	m16	176	m0	m93	564	m0			161	61	21	
Internal Link Dist (ft)		985			754			238			291	
Turn Bay Length (ft)	140		200	300		100				65		
Base Capacity (vph)	245	3391	1083	886	4135	1491			861	91	93	
Starvation Cap Reductn	0	0	0	0	0	0			1	0	0	
Spillback Cap Reductn	0	0	0	0	0	0			0	0	0	
Storage Cap Reductn	0	0	0	0	0	0			0	0	0	
Reduced v/c Ratio	0.09	0.59	0.03	0.26	0.47	0.01			0.48	0.37	0.11	

Intersection Summary

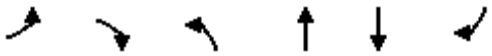
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 88 (73%), Referenced to phase 4:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 13.7 Intersection LOS: B
Intersection Capacity Utilization 68.5% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 18: Mall Drive 1 & Bluebonnet



Lane Group	ø8	ø9	ø10	ø11
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	14.0
Minimum Split (s)	22.0	10.0	22.0	20.0
Total Split (s)	21.0	52.0	12.0	35.0
Total Split (%)	18%	43%	10%	29%
Maximum Green (s)	15.0	46.0	6.0	29.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	4.3
Minimum Gap (s)	3.0	3.0	3.0	2.2
Time Before Reduce (s)	0.0	0.0	0.0	34.0
Time To Reduce (s)	0.0	0.0	0.0	15.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Lane Configurations												
Volume (vph)	241	157	177	237	229	79						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Frt		0.850				0.850						
Flt Protected	0.950		0.950									
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583						
Flt Permitted	0.950		0.550									
Satd. Flow (perm)	1770	1583	1025	1863	1863	1583						
Right Turn on Red		Yes				Yes						
Satd. Flow (RTOR)		171				86						
Link Speed (mph)	30			30	30							
Link Distance (ft)	403			1050	819							
Travel Time (s)	9.2			23.9	18.6							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	262	171	192	258	249	86						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	262	171	192	258	249	86						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Right	Left	Left	Left	Right						
Median Width(ft)	36			12	0							
Link Offset(ft)	0			0	0							
Crosswalk Width(ft)	16			16	16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15	9	15			9						
Number of Detectors	1	1	1	2	2	1						
Detector Template	Left	Right	Left	Thru	Thru	Right						
Leading Detector (ft)	20	20	20	100	100	20						
Trailing Detector (ft)	0	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0	0						
Detector 1 Size(ft)	20	20	20	6	6	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)				94	94							
Detector 2 Size(ft)				6	6							
Detector 2 Type				Cl+Ex	Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)				0.0	0.0							
Turn Type	Prot	Free	D.P+P	NA	NA	pm+ov						
Protected Phases	12 13		11	11 14	14	12 13	1	2	3	5	6	8
Permitted Phases		Free	14			14						
Detector Phase	12 13		11	11 14	14	12 13						
Switch Phase												
Minimum Initial (s)			4.0		3.0		3.0	3.0	3.0	21.0	3.0	3.0
Minimum Split (s)			10.0		9.0		11.0	9.0	9.0	27.0	11.0	9.0

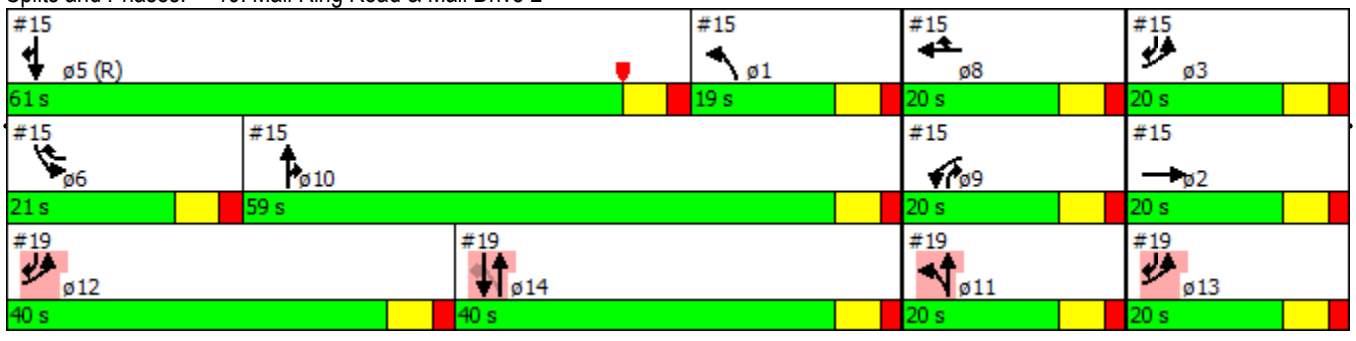
Lane Group	ø9	ø10	ø12	ø13
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	9	10	12	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	21.0	4.0	4.0
Minimum Split (s)	9.0	27.0	22.0	10.0

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Total Split (s)			20.0		40.0		19.0	20.0	20.0	61.0	21.0	20.0
Total Split (%)			16.7%		33.3%		16%	17%	17%	51%	18%	17%
Maximum Green (s)			14.0		34.0		13.0	14.0	14.0	55.0	15.0	14.0
Yellow Time (s)			4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)			2.0		2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0		0.0							
Total Lost Time (s)			6.0		6.0							
Lead/Lag					Lag		Lag			Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0		1.0		3.0	1.0	1.5	4.3	1.0	1.0
Minimum Gap (s)			3.0		0.2		0.2	0.2	0.2	2.2	0.2	0.2
Time Before Reduce (s)			0.0		0.0		0.0	0.0	0.0	28.0	0.0	0.0
Time To Reduce (s)			0.0		0.0		0.0	0.0	0.0	15.0	0.0	0.0
Recall Mode			None		None		None	None	None	C-Min	None	None
Act Effct Green (s)	39.8	120.0	62.2	68.2	53.0	98.9						
Actuated g/C Ratio	0.33	1.00	0.52	0.57	0.44	0.82						
v/c Ratio	0.45	0.11	0.33	0.24	0.30	0.07						
Control Delay	38.8	0.1	19.3	15.5	10.4	0.1						
Queue Delay	0.1	0.0	0.0	0.0	0.0	0.0						
Total Delay	38.9	0.1	19.3	15.5	10.4	0.1						
LOS	D	A	B	B	B	A						
Approach Delay	23.6			17.1	7.7							
Approach LOS	C			B	A							
Queue Length 50th (ft)	130	0	93	125	55	0						
Queue Length 95th (ft)	156	0	189	287	188	0						
Internal Link Dist (ft)	323			970	739							
Turn Bay Length (ft)												
Base Capacity (vph)	866	1583	659	1133	823	1319						
Starvation Cap Reductn	126	0	0	0	0	0						
Spillback Cap Reductn	0	0	0	0	0	0						
Storage Cap Reductn	0	0	0	0	0	0						
Reduced v/c Ratio	0.35	0.11	0.29	0.23	0.30	0.07						

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 79 (66%), Referenced to phase 5:SBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 16.8 Intersection LOS: B
Intersection Capacity Utilization 50.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 19: Mall Ring Road & Mall Drive 2

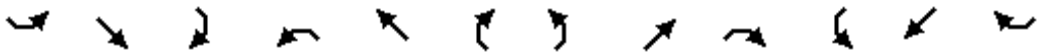


Lane Group	ø9	ø10	ø12	ø13
Total Split (s)	20.0	59.0	40.0	20.0
Total Split (%)	17%	49%	33%	17%
Maximum Green (s)	14.0	53.0	34.0	14.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?			Yes	
Vehicle Extension (s)	1.0	4.3	3.0	3.0
Minimum Gap (s)	0.2	0.2	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	189	4	906	0	0	0	0	1943	366	328	1188	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		0	0		0	400		0	300		0
Storage Lanes	1		1	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950	0.954								0.950		
Satd. Flow (prot)	1681	1688	1583	0	0	0	0	6408	1583	1770	3539	0
Flt Permitted	0.950	0.954								0.950		
Satd. Flow (perm)	1681	1688	1583	0	0	0	0	6408	1583	1770	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			559						385			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1072			1024			834			410	
Travel Time (s)		24.4			23.3			12.6			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	199	4	954	0	0	0	0	2045	385	345	1251	0
Shared Lane Traffic (%)	49%											
Lane Group Flow (vph)	101	102	954	0	0	0	0	2045	385	345	1251	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			25	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					2	1	1	2	
Detector Template												
Leading Detector (ft)	45	45	45					290	45	45	290	
Trailing Detector (ft)	-6	-6	-6					284	-6	-6	284	
Detector 1 Position(ft)	-6	-6	-6					-6	-6	-6	-6	
Detector 1 Size(ft)	51	51	51					51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA	Free					NA	Perm	Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2			
Detector Phase	4	4						2	2	1	6	

Lane Group	ø5	ø8
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	5	8
Permitted Phases		
Detector Phase		



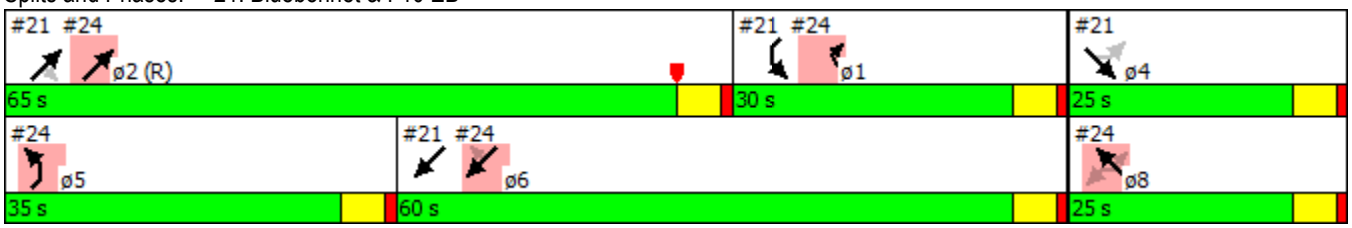
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)	3.0	3.0						10.0	10.0	3.0	10.0	
Minimum Split (s)	20.0	20.0						20.0	20.0	8.0	20.0	
Total Split (s)	25.0	25.0						65.0	65.0	30.0	60.0	
Total Split (%)	20.8%	20.8%						54.2%	54.2%	25.0%	50.0%	
Maximum Green (s)	20.0	20.0						60.0	60.0	25.0	55.0	
Yellow Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0	2.0	2.0	6.0	
Recall Mode	None	None						C-Max	C-Max	None	Max	
Act Effct Green (s)	14.2	14.2	120.0					65.8	65.8	25.0	55.0	
Actuated g/C Ratio	0.12	0.12	1.00					0.55	0.55	0.21	0.46	
v/c Ratio	0.51	0.51	0.60					0.58	0.37	0.94	0.77	
Control Delay	57.7	57.8	1.7					8.9	1.8	56.7	14.7	
Queue Delay	0.0	0.0	0.0					0.0	0.0	0.0	1.3	
Total Delay	57.7	57.8	1.7					8.9	1.8	56.7	16.0	
LOS	E	E	A					A	A	E	B	
Approach Delay		11.5						7.8			24.8	
Approach LOS		B						A			C	
Queue Length 50th (ft)	77	78	0					158	18	252	113	
Queue Length 95th (ft)	132	133	0					210	34	m#384	151	
Internal Link Dist (ft)		992			944			754			330	
Turn Bay Length (ft)	375									300		
Base Capacity (vph)	280	281	1583					3514	1041	368	1622	
Starvation Cap Reductn	0	0	0					0	0	0	181	
Spillback Cap Reductn	0	0	0					75	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.36	0.36	0.60					0.59	0.37	0.94	0.87	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NET, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 13.9		Intersection LOS: B	
Intersection Capacity Utilization 76.3%		ICU Level of Service D	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

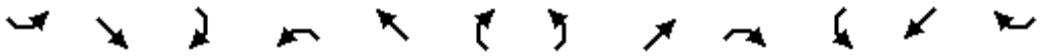
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: Bluebonnet & I-10 EB



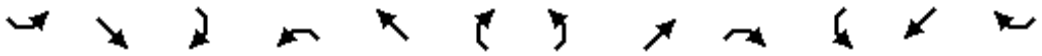
Lane Group	ø5	ø8
Switch Phase		
Minimum Initial (s)	3.0	3.0
Minimum Split (s)	8.0	20.0
Total Split (s)	35.0	25.0
Total Split (%)	29%	21%
Maximum Green (s)	30.0	20.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?		
Vehicle Extension (s)	3.5	2.0
Recall Mode	Max	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	0	0	254	5	344	763	1369	0	0	1262	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		525	300		0	0		575
Storage Lanes	0		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt						0.850						0.850
Flt Protected				0.950	0.954		0.950					
Satd. Flow (prot)	0	0	0	1681	1688	1583	3433	3539	0	0	3539	1583
Flt Permitted				0.950	0.954		0.950					
Satd. Flow (perm)	0	0	0	1681	1688	1583	3433	3539	0	0	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						64						167
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		894			1008			410			866	
Travel Time (s)		20.3			22.9			6.2			13.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	267	5	362	803	1441	0	0	1328	167
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	0	0	136	136	362	803	1441	0	0	1328	167
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			40			50	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			2	1
Detector Template												
Leading Detector (ft)				45	45	45	45	290			290	45
Trailing Detector (ft)				-6	-6	-6	-6	284			284	-6
Detector 1 Position(ft)				-6	-6	-6	-6	-6			-6	-6
Detector 1 Size(ft)				51	51	51	51	51			51	51
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call			Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type				Perm	NA	custom	Prot	NA			NA	Perm
Protected Phases					8	1	5	2			6	
Permitted Phases				8		8						6
Detector Phase				8	8	1	5	2			6	6

Lane Group	ø4
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	

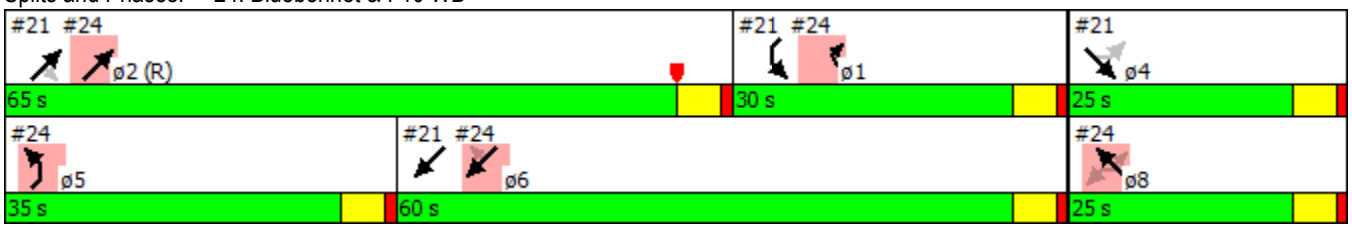


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)				3.0	3.0	3.0	3.0	10.0			10.0	10.0
Minimum Split (s)				20.0	20.0	8.0	8.0	20.0			20.0	20.0
Total Split (s)				25.0	25.0	30.0	35.0	65.0			60.0	60.0
Total Split (%)				20.8%	20.8%	25.0%	29.2%	54.2%			50.0%	50.0%
Maximum Green (s)				20.0	20.0	25.0	30.0	60.0			55.0	55.0
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
All-Red Time (s)				1.0	1.0	1.0	1.0	1.0			1.0	1.0
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)				5.0	5.0	5.0	5.0	5.0			5.0	5.0
Lead/Lag						Lag	Lead	Lead			Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0	2.0	3.5	2.0			6.0	6.0
Recall Mode				None	None	None	Max	C-Max			Max	Max
Act Effct Green (s)				14.2	14.2	44.2	35.8	65.8			55.0	55.0
Actuated g/C Ratio				0.12	0.12	0.37	0.30	0.55			0.46	0.46
v/c Ratio				0.69	0.68	0.58	0.78	0.74			0.82	0.20
Control Delay				67.7	67.4	28.2	38.3	7.3			21.9	1.6
Queue Delay				0.0	0.0	0.0	0.8	0.0			0.3	0.0
Total Delay				67.7	67.4	28.2	39.1	7.3			22.2	1.6
LOS				E	E	C	D	A			C	A
Approach Delay					45.1			18.7			19.9	
Approach LOS					D			B			B	
Queue Length 50th (ft)				108	108	184	194	77			466	5
Queue Length 95th (ft)				171	171	262	#416	99			346	5
Internal Link Dist (ft)		814			928			330			786	
Turn Bay Length (ft)						525	300					575
Base Capacity (vph)				280	281	623	1024	1941			1622	816
Starvation Cap Reductn				0	0	0	61	0			0	0
Spillback Cap Reductn				0	0	0	0	0			44	0
Storage Cap Reductn				0	0	0	0	0			0	0
Reduced v/c Ratio				0.49	0.48	0.58	0.83	0.74			0.84	0.20

Intersection Summary

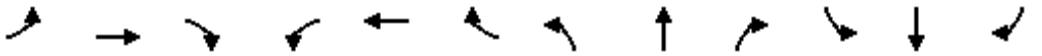
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NET, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 22.9 Intersection LOS: C
Intersection Capacity Utilization 76.3% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 24: Bluebonnet & I-10 WB

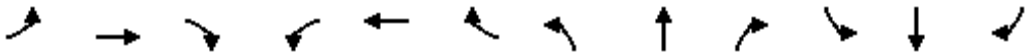


Lane Group	ø4
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	20.0
Total Split (s)	25.0
Total Split (%)	21%
Maximum Green (s)	20.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	68	27	65	162	10	54	75	1467	171	70	1194	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		200	300		175	175		175
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.894			0.897	0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3164	0	3433	1587	1504	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.145			0.083		
Satd. Flow (perm)	1770	3164	0	3433	1587	1504	270	3539	1583	155	3539	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		68										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		475			1072			866			1049	
Travel Time (s)		10.8			24.4			13.1			15.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	72	28	68	171	11	57	79	1544	180	74	1257	25
Shared Lane Traffic (%)						42%						
Lane Group Flow (vph)	72	96	0	171	35	33	79	1544	180	74	1257	25
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		60			60			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4		3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases							2			6		
Detector Phase	7	4		3	8	8 1	5	2	2 3	1	6	6 7

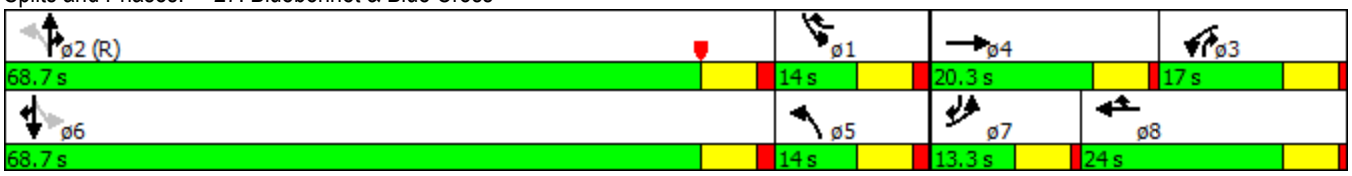


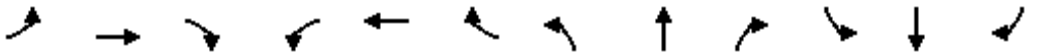
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	5.0		5.0	3.0		3.0	20.0		5.0	20.0	
Minimum Split (s)	8.9	10.9		10.9	8.9		9.6	26.6		11.6	26.6	
Total Split (s)	13.3	20.3		17.0	24.0		14.0	68.7		14.0	68.7	
Total Split (%)	11.1%	16.9%		14.2%	20.0%		11.7%	57.3%		11.7%	57.3%	
Maximum Green (s)	7.4	14.4		11.1	18.1		7.4	62.1		7.4	62.1	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	0.9	0.9		0.9	0.9		1.6	1.6		1.6	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.9	5.9		5.9	5.9		6.6	6.6		6.6	6.6	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		2.5	1.5		1.5	5.0		1.5	5.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	7.4	5.9		11.0	11.7	17.4	83.4	74.3	91.2	74.5	68.4	76.4
Actuated g/C Ratio	0.06	0.05		0.09	0.10	0.14	0.70	0.62	0.76	0.62	0.57	0.64
v/c Ratio	0.66	0.44		0.54	0.23	0.15	0.24	0.70	0.15	0.42	0.62	0.02
Control Delay	83.0	26.8		58.3	54.3	31.8	6.0	12.0	2.8	24.5	23.1	5.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Total Delay	83.0	26.8		58.3	54.3	31.8	6.0	12.2	2.8	24.5	23.1	5.7
LOS	F	C		E	D	C	A	B	A	C	C	A
Approach Delay		50.9			54.1			11.0			22.9	
Approach LOS		D			D			B			C	
Queue Length 50th (ft)	55	11		66	27	20	3	361	15	12	387	5
Queue Length 95th (ft)	#126	39		100	60	43	m9	652	m26	35	561	m10
Internal Link Dist (ft)		395			992			786			969	
Turn Bay Length (ft)	75			200		200	300		175	175		175
Base Capacity (vph)	115	439		341	241	309	344	2192	1163	197	2033	1020
Starvation Cap Reductn	0	0		0	0	0	0	145	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.22		0.50	0.15	0.11	0.23	0.75	0.15	0.38	0.62	0.02

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 26 (22%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 20.3		Intersection LOS: C	
Intersection Capacity Utilization 71.9%		ICU Level of Service C	
Analysis Period (min) 15			

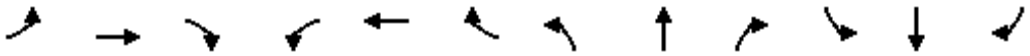
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 27: Bluebonnet & Blue Cross





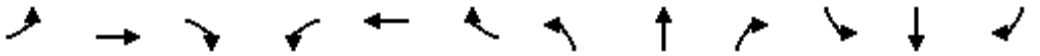
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	3	10	25	0	8	16	1499	19	5	1331	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		130	150		185
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.945			0.968				0.850			0.850
Flt Protected		0.976			0.963		0.950			0.950		
Satd. Flow (prot)	0	1718	0	0	1736	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.830			0.767		0.181			0.147		
Satd. Flow (perm)	0	1461	0	0	1383	0	337	3539	1583	274	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			27				27			27
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1129			1330			1049			1811	
Travel Time (s)		25.7			30.2			15.9			27.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	13	3	11	26	0	8	17	1578	20	5	1401	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	27	0	0	34	0	17	1578	20	5	1401	8
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



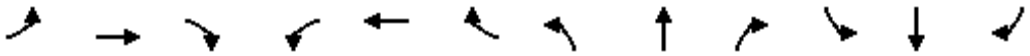
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	11.0	11.0		11.0	11.0		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.0	24.0		24.0	24.0		84.0	84.0	84.0	84.0	84.0	84.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		6.7			6.7		108.2	108.2	108.2	108.2	108.2	108.2
Actuated g/C Ratio		0.06			0.06		0.90	0.90	0.90	0.90	0.90	0.90
v/c Ratio		0.30			0.33		0.06	0.49	0.01	0.02	0.44	0.01
Control Delay		45.3			32.4		0.8	0.8	0.1	2.0	2.3	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		45.3			32.4		0.8	0.8	0.1	2.0	2.3	0.0
LOS		D			C		A	A	A	A	A	A
Approach Delay		45.3			32.4			0.8			2.3	
Approach LOS		D			C			A			A	
Queue Length 50th (ft)		12			5		1	47	0	0	104	0
Queue Length 95th (ft)		42			39		m1	33	m0	m1	148	m0
Internal Link Dist (ft)		1049			1250			969			1731	
Turn Bay Length (ft)							150		130	150		185
Base Capacity (vph)		301			298		304	3191	1430	247	3191	1430
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.09			0.11		0.06	0.49	0.01	0.02	0.44	0.01

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 71 (59%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 2.2		Intersection LOS: A	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 30: Bluebonnet & Gail



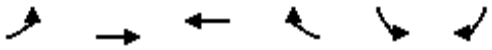
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	14	1	48	13	1	14	53	1372	15	8	1258	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.897			0.932				0.850			0.850
Flt Protected		0.989			0.977		0.950			0.950		
Satd. Flow (prot)	0	1653	0	0	1696	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.914			0.859		0.196			0.170		
Satd. Flow (perm)	0	1527	0	0	1491	0	365	3539	1583	317	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		51			15				29			29
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1794			2049			1811			2409	
Travel Time (s)		40.8			46.6			27.4			36.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	15	1	51	14	1	15	56	1444	16	8	1324	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	67	0	0	30	0	56	1444	16	8	1324	27
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	9.2	9.2		9.2	9.2		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	34.2	34.2		34.2	34.2		85.8	85.8	85.8	85.8	85.8	85.8
Total Split (%)	28.5%	28.5%		28.5%	28.5%		71.5%	71.5%	71.5%	71.5%	71.5%	71.5%
Maximum Green (s)	28.0	28.0		28.0	28.0		79.8	79.8	79.8	79.8	79.8	79.8
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.2	1.2		1.2	1.2		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.2			6.2		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		7.2			7.2		104.1	104.1	104.1	104.1	104.1	104.1
Actuated g/C Ratio		0.06			0.06		0.87	0.87	0.87	0.87	0.87	0.87
v/c Ratio		0.49			0.29		0.18	0.47	0.01	0.03	0.43	0.02
Control Delay		32.0			40.0		1.4	0.8	0.1	2.2	2.8	0.7
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		32.0			40.0		1.4	0.8	0.1	2.2	2.8	0.7
LOS		C			D		A	A	A	A	A	A
Approach Delay		32.0			40.0			0.8			2.8	
Approach LOS		C			D			A			A	
Queue Length 50th (ft)		12			11		1	50	0	1	97	0
Queue Length 95th (ft)		57			42		1	27	m1	4	159	5
Internal Link Dist (ft)		1714			1969			1731			2329	
Turn Bay Length (ft)							150		150	150		150
Base Capacity (vph)		395			359		316	3070	1377	275	3070	1377
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.17			0.08		0.18	0.47	0.01	0.03	0.43	0.02

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 106 (88%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 2.8		Intersection LOS: A	
Intersection Capacity Utilization 69.0%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 33: Bluebonnet & Oliphant



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Lane Configurations												
Volume (vph)	139	339	209	252	151	99						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.95						
Frt				0.850	0.940							
Flt Protected	0.950				0.971							
Satd. Flow (prot)	1770	1863	1863	1583	3298	0						
Flt Permitted	0.400				0.971							
Satd. Flow (perm)	745	1863	1863	1583	3298	0						
Right Turn on Red				Yes		Yes						
Satd. Flow (RTOR)				274	108							
Link Speed (mph)		30	30		30							
Link Distance (ft)		819	802		318							
Travel Time (s)		18.6	18.2		7.2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	151	368	227	274	164	108						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	151	368	227	274	272	0						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Right	Left	Right						
Median Width(ft)		12	0		36							
Link Offset(ft)		0	0		0							
Crosswalk Width(ft)		16	16		16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15			9	15	9						
Number of Detectors	1	2	2	1	1							
Detector Template	Left	Thru	Thru	Right	Left							
Leading Detector (ft)	20	100	100	20	20							
Trailing Detector (ft)	0	0	0	0	0							
Detector 1 Position(ft)	0	0	0	0	0							
Detector 1 Size(ft)	20	6	6	20	20							
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex							
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0							
Detector 2 Position(ft)		94	94									
Detector 2 Size(ft)		6	6									
Detector 2 Type		Cl+Ex	Cl+Ex									
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0									
Turn Type	D.P+P	NA	NA	pm+ov	Prot							
Protected Phases	8	8 11	11	9 10	9 10		1	2	4	5	7	9
Permitted Phases	11			11								
Detector Phase	8	8 11	11	9 10	9 10							
Switch Phase												
Minimum Initial (s)	4.0		14.0				4.0	4.0	14.0	4.0	14.0	4.0
Minimum Split (s)	22.0		20.0				10.0	10.0	20.0	10.0	20.0	10.0

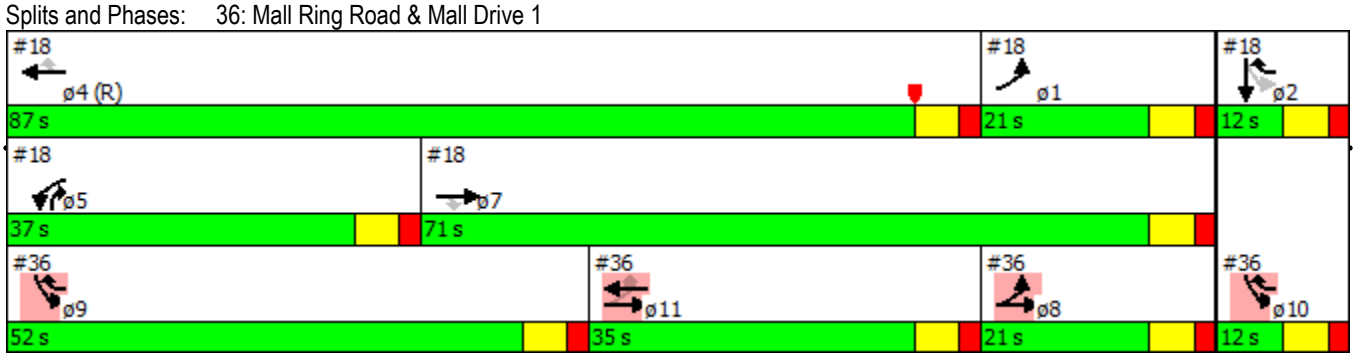
Lane Group	ø10
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	10
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	22.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Total Split (s)	21.0		35.0				21.0	12.0	87.0	37.0	71.0	52.0
Total Split (%)	17.5%		29.2%				18%	10%	73%	31%	59%	43%
Maximum Green (s)	15.0		29.0				15.0	6.0	81.0	31.0	65.0	46.0
Yellow Time (s)	4.0		4.0				4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0				2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0									
Total Lost Time (s)	6.0		6.0									
Lead/Lag			Lag				Lag		Lead	Lead	Lag	Lead
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0		4.3				2.5	2.0	4.3	2.5	4.3	3.0
Minimum Gap (s)	3.0		2.2				0.2	0.2	2.2	0.2	2.2	3.0
Time Before Reduce (s)	0.0		34.0				0.0	0.0	34.0	0.0	0.0	0.0
Time To Reduce (s)	0.0		15.0				0.0	0.0	15.0	0.0	0.0	0.0
Recall Mode	None		None				None	None	C-Min	None	None	None
Act Effct Green (s)	82.7	88.7	22.8	48.0	19.3							
Actuated g/C Ratio	0.69	0.74	0.19	0.40	0.16							
v/c Ratio	0.15	0.27	0.64	0.34	0.44							
Control Delay	2.1	2.2	52.5	3.3	66.0							
Queue Delay	0.0	0.0	0.0	0.0	0.0							
Total Delay	2.1	2.2	52.5	3.3	66.0							
LOS	A	A	D	A	E							
Approach Delay		2.2	25.6		66.0							
Approach LOS		A	C		E							
Queue Length 50th (ft)	25	116	164	0	94							
Queue Length 95th (ft)	2	4	227	43	87							
Internal Link Dist (ft)		739	722		238							
Turn Bay Length (ft)												
Base Capacity (vph)	1026	1367	457	914	1655							
Starvation Cap Reductn	0	0	0	0	0							
Spillback Cap Reductn	0	0	0	0	0							
Storage Cap Reductn	0	0	0	0	0							
Reduced v/c Ratio	0.15	0.27	0.50	0.30	0.16							

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 88 (73%), Referenced to phase 4:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 24.7 Intersection LOS: C
Intersection Capacity Utilization 41.8% ICU Level of Service A
Analysis Period (min) 15

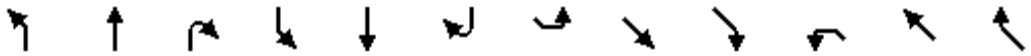
Splits and Phases: 36: Mall Ring Road & Mall Drive 1



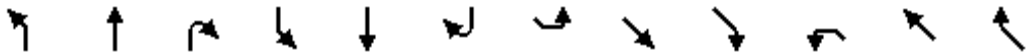
Lane Group	ø10
Total Split (s)	12.0
Total Split (%)	10%
Maximum Green (s)	6.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Minimum Gap (s)	3.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

M.5 2015 EXISTING PM – ESSEN LANE



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	222	477	99	405	982	626	496	1200	152	167	816	232
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	800		0	300		0	150		0
Storage Lanes	1		0	1		1	2		0	1		0
Taper Length (ft)	150			25			200			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Frt		0.974				0.850		0.983			0.967	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3447	0	1770	3539	1583	3433	3479	0	1770	3422	0
Flt Permitted	0.109			0.139			0.950			0.950		
Satd. Flow (perm)	203	3447	0	259	3539	1583	3433	3479	0	1770	3422	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13				356		9			21	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1877			1475			2128			1788	
Travel Time (s)		28.4			22.3			32.2			27.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	241	518	108	440	1067	680	539	1304	165	182	887	252
Shared Lane Traffic (%)												
Lane Group Flow (vph)	241	626	0	440	1067	680	539	1469	0	182	1139	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	0	1	1		1	1	
Detector Template												
Leading Detector (ft)	45	290		45	290	0	45	45		45	45	
Trailing Detector (ft)	-6	284		-6	284	0	-6	-6		-6	-6	
Detector 1 Position(ft)	-6	-6		-6	-6	0	-6	-6		-6	-6	
Detector 1 Size(ft)	51	51		51	51	50	51	51		51	51	
Detector 1 Type	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2		2						
Detector Phase	1	6		5	2	2	3	8		7	4	



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	5.0	10.0		3.0	10.0	
Minimum Split (s)	8.8	15.8		8.8	15.8	15.8	11.5	16.5		9.5	16.5	
Total Split (s)	30.8	40.8		30.8	45.8	45.8	41.5	66.5		21.5	56.5	
Total Split (%)	17.6%	23.4%		17.6%	26.2%	26.2%	23.8%	38.1%		12.3%	32.4%	
Maximum Green (s)	25.0	35.0		25.0	40.0	40.0	35.0	60.0		15.0	50.0	
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8	5.5	5.5		5.5	5.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8		5.8	5.8	5.8	6.5	6.5		6.5	6.5	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	6.0		2.0	6.0	6.0	2.0	6.0		2.0	6.0	
Minimum Gap (s)	0.2	4.0		0.2	4.0	4.0	0.2	4.0		0.2	4.0	
Time Before Reduce (s)	0.0	20.0		0.0	20.0	20.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	
Act Effct Green (s)	58.6	36.8		64.3	40.1	40.1	29.8	60.1		20.0	50.4	
Actuated g/C Ratio	0.35	0.22		0.39	0.24	0.24	0.18	0.36		0.12	0.30	
v/c Ratio	0.87	0.81		1.35	1.25	1.04	0.88	1.17		0.86	1.09	
Control Delay	77.0	70.0		212.0	173.7	75.6	83.4	129.5		105.9	106.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	77.0	70.0		212.0	173.7	75.6	83.4	129.5		105.9	106.5	
LOS	E	E		F	F	E	F	F		F	F	
Approach Delay		71.9			150.9			117.1			106.4	
Approach LOS		E			F			F			F	
Queue Length 50th (ft)	207	341		~574	~787	~503	303	~1031		201	~752	
Queue Length 95th (ft)	#350	428		#836	#966	#784	376	#1223		#299	#935	
Internal Link Dist (ft)		1797			1395			2048			1708	
Turn Bay Length (ft)	250			800			300			150		
Base Capacity (vph)	310	838		327	851	651	722	1260		266	1048	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.78	0.75		1.35	1.25	1.04	0.75	1.17		0.68	1.09	

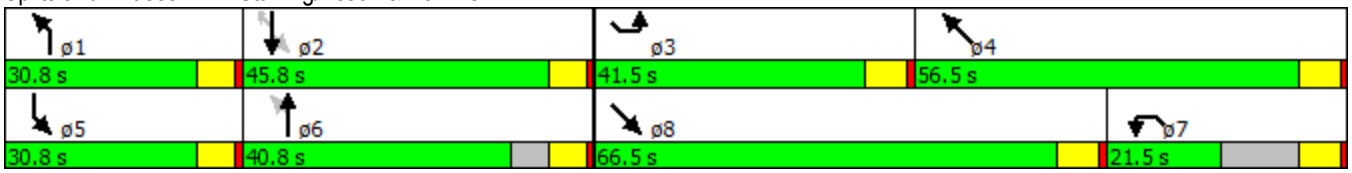
Intersection Summary			
Area Type:	Other		
Cycle Length: 174.6			
Actuated Cycle Length: 166.7			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.35			
Intersection Signal Delay: 120.3		Intersection LOS: F	
Intersection Capacity Utilization 107.2%		ICU Level of Service G	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

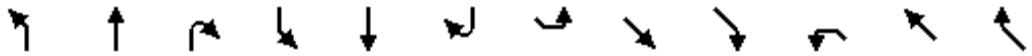
Queue shown is maximum after two cycles.

Splits and Phases: 2: Starring/Essen & Perkins



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	0	2353	512	492	1473	0	17	0	647	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973							0.850			
Flt Protected				0.950				0.950				
Satd. Flow (prot)	0	4948	0	1770	3539	0	0	1770	1583	0	0	0
Flt Permitted				0.950				0.950				
Satd. Flow (perm)	0	4948	0	1770	3539	0	0	1770	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		51							173			
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		721			409			1012			1106	
Travel Time (s)		10.9			6.2			23.0			25.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	2558	557	535	1601	0	18	0	703	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3115	0	535	1601	0	0	18	703	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			20			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2		1	1	0			
Detector Template							Left					
Leading Detector (ft)		290		45	290		20	45	0			
Trailing Detector (ft)		284		-6	284		0	-6	0			
Detector 1 Position(ft)		-6		-6	-6		0	-6	0			
Detector 1 Size(ft)		51		51	51		20	51	20			
Detector 1 Type		Call		Cl+Ex	Call		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Queue (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Delay (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA		Prot	NA		Perm	NA	Free			
Protected Phases		6		5	5 6			8				
Permitted Phases							8		Free			
Detector Phase		6		5	5 6		8	8				
Switch Phase												
Minimum Initial (s)		10.0		3.0			3.0	3.0				
Minimum Split (s)		16.0		9.0			9.0	9.0				

Lane Group	ø1	ø2	ø4
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	1	2	4
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Total Split (s)		109.0		45.0			16.0	16.0				
Total Split (%)		64.1%		26.5%			9.4%	9.4%				
Maximum Green (s)		103.0		39.0			10.0	10.0				
Yellow Time (s)		5.0		5.0			5.0	5.0				
All-Red Time (s)		1.0		1.0			1.0	1.0				
Lost Time Adjust (s)		0.0		0.0				0.0				
Total Lost Time (s)		6.0		6.0				6.0				
Lead/Lag		Lag					Lead	Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)		4.0		2.5			2.0	2.0				
Minimum Gap (s)		2.0		0.2			0.2	0.2				
Time Before Reduce (s)		10.0		0.0			0.0	0.0				
Time To Reduce (s)		20.0		0.0			0.0	0.0				
Recall Mode		Max		C-Max			Max	Max				
Act Effct Green (s)		103.0		39.0	148.0			10.0	170.0			
Actuated g/C Ratio		0.61		0.23	0.87			0.06	1.00			
v/c Ratio		1.03		1.32	0.52			0.17	0.44			
Control Delay		49.1		179.0	3.5			80.2	0.9			
Queue Delay		28.3		1.0	1.0			0.0	0.0			
Total Delay		77.4		180.0	4.5			80.2	0.9			
LOS		E		F	A			F	A			
Approach Delay		77.4			48.5			2.9				
Approach LOS		E			D			A				
Queue Length 50th (ft)		~126		~761	68			20	0			
Queue Length 95th (ft)		#1399		m#881	152			49	0			
Internal Link Dist (ft)		641			329			932			1026	
Turn Bay Length (ft)												
Base Capacity (vph)		3018		406	3081			104	1583			
Starvation Cap Reductn		228		38	1119			0	0			
Spillback Cap Reductn		423		0	59			0	63			
Storage Cap Reductn		0		0	0			0	0			
Reduced v/c Ratio		1.20		1.45	0.82			0.17	0.46			

Intersection Summary

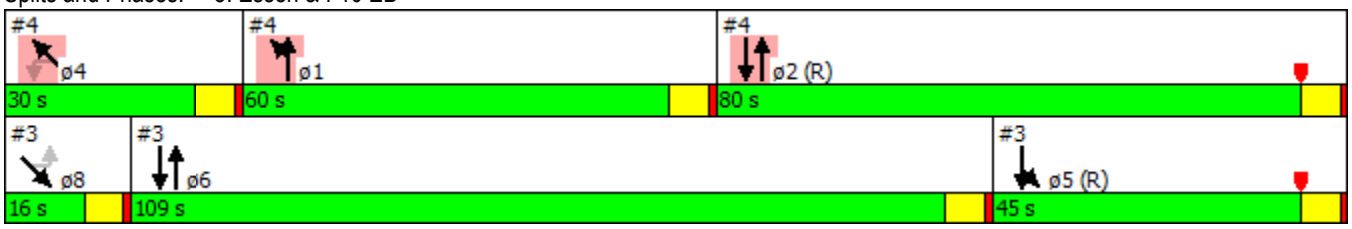
Area Type: Other
Cycle Length: 170
Actuated Cycle Length: 170
Offset: 155 (91%), Referenced to phase 2:NBSB and 5:, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.48
Intersection Signal Delay: 58.1 Intersection LOS: E
Intersection Capacity Utilization 103.7% ICU Level of Service G
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Essen & I-10 EB

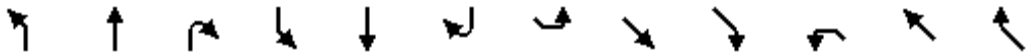


Lane Group	ø1	ø2	ø4
Total Split (s)	60.0	80.0	30.0
Total Split (%)	35%	47%	18%
Maximum Green (s)	54.0	74.0	24.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag		Lead
Lead-Lag Optimize?			
Vehicle Extension (s)	2.5	4.0	4.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	Max	C-Max	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	767	1603	0	0	1781	73	0	0	0	184	0	379
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	450		200	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.994							0.850
Flt Protected	0.950										0.950	
Satd. Flow (prot)	1770	3539	0	0	5055	0	0	0	0	0	1770	1583
Flt Permitted	0.950										0.950	
Satd. Flow (perm)	1770	3539	0	0	5055	0	0	0	0	0	1770	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4							190
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		409			805			936			1390	
Travel Time (s)		6.2			12.2			21.3			31.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	834	1742	0	0	1936	79	0	0	0	200	0	412
Shared Lane Traffic (%)												
Lane Group Flow (vph)	834	1742	0	0	2015	0	0	0	0	0	200	412
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		20			20			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2					1	1	0
Detector Template										Left		
Leading Detector (ft)	45	290			290					20	45	0
Trailing Detector (ft)	-6	284			284					0	-6	0
Detector 1 Position(ft)	-6	-6			-6					0	-6	0
Detector 1 Size(ft)	51	51			51					20	51	20
Detector 1 Type	Cl+Ex	Call			Call					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA			NA					Perm	NA	Free
Protected Phases	1	1 2			2						4	
Permitted Phases										4		Free
Detector Phase	1	1 2			2					4	4	

Lane Group	ø5	ø6	ø8
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	5	6	8
Permitted Phases			
Detector Phase			



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0				10.0					3.0	3.0	
Minimum Split (s)	9.0				16.0					9.0	9.0	
Total Split (s)	60.0				80.0					30.0	30.0	
Total Split (%)	35.3%				47.1%					17.6%	17.6%	
Maximum Green (s)	54.0				74.0					24.0	24.0	
Yellow Time (s)	5.0				5.0					5.0	5.0	
All-Red Time (s)	1.0				1.0					1.0	1.0	
Lost Time Adjust (s)	0.0				0.0						0.0	
Total Lost Time (s)	6.0				6.0						6.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5				4.0					4.0	4.0	
Minimum Gap (s)	0.2				2.0					0.2	0.2	
Time Before Reduce (s)	0.0				10.0					0.0	0.0	
Time To Reduce (s)	0.0				20.0					0.0	0.0	
Recall Mode	Max				C-Max					Max	Max	
Act Effct Green (s)	54.0	134.0			74.0						24.0	170.0
Actuated g/C Ratio	0.32	0.79			0.44						0.14	1.00
v/c Ratio	1.48	0.62			0.92						0.80	0.26
Control Delay	254.8	2.4			45.5						93.9	0.4
Queue Delay	1.0	20.8			24.7						0.0	0.0
Total Delay	255.7	23.2			70.2						93.9	0.4
LOS	F	C			E						F	A
Approach Delay		98.5			70.2						31.0	
Approach LOS		F			E						C	
Queue Length 50th (ft)	~1269	121			621						219	0
Queue Length 95th (ft)	m#1211	m103			769						#348	0
Internal Link Dist (ft)		329			725			856			1310	
Turn Bay Length (ft)												
Base Capacity (vph)	562	2789			2202						249	1583
Starvation Cap Reductn	66	1100			109						0	0
Spillback Cap Reductn	0	305			282						0	136
Storage Cap Reductn	0	0			0						0	0
Reduced v/c Ratio	1.68	1.03			1.05						0.80	0.28

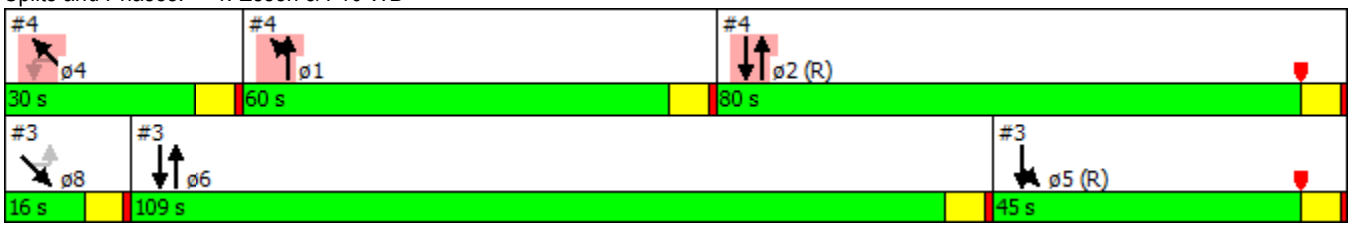
Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 155 (91%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.48			
Intersection Signal Delay: 79.6		Intersection LOS: E	
Intersection Capacity Utilization 103.7%		ICU Level of Service G	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

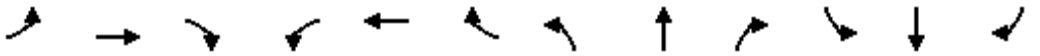
Lane Group	ø5	ø6	ø8
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	45.0	109.0	16.0
Total Split (%)	26%	64%	9%
Maximum Green (s)	39.0	103.0	10.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lead
Lead-Lag Optimize?			
Vehicle Extension (s)	2.5	4.0	2.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	C-Max	Max	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

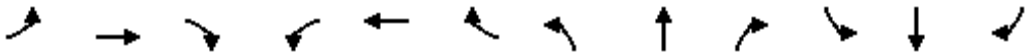
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Essen & I-10 WB





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	125	1	52	10	0	138	26	2478	4	12	2038	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		0	300		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91
Frt		0.853			0.874						0.996	
Flt Protected	0.950				0.997		0.950			0.950		
Satd. Flow (prot)	1770	1589	0	0	1623	0	1770	3539	0	1770	5065	0
Flt Permitted	0.349				0.978		0.043			0.035		
Satd. Flow (perm)	650	1589	0	0	1592	0	80	3539	0	65	5065	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		57			130						5	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		456			896			891			199	
Travel Time (s)		10.4			20.4			13.5			3.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	136	1	57	11	0	150	28	2693	4	13	2215	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	58	0	0	161	0	28	2697	0	13	2277	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45		45	290		45	290	
Trailing Detector (ft)	-6	-6		0	-6		-6	284		-6	284	
Detector 1 Position(ft)	-6	-6		0	-6		-6	-6		-6	-6	
Detector 1 Size(ft)	51	51		20	51		51	51		51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		1	6		5	2	

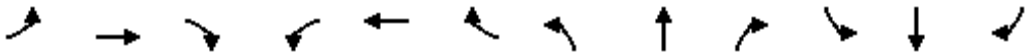


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	21.0		11.0	21.0	
Total Split (s)	28.0	28.0		28.0	28.0		21.0	121.0		21.0	121.0	
Total Split (%)	16.5%	16.5%		16.5%	16.5%		12.4%	71.2%		12.4%	71.2%	
Maximum Green (s)	22.0	22.0		22.0	22.0		15.0	115.0		15.0	115.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.5		2.0	2.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		Max	Min		None	C-Min	
Act Effct Green (s)	22.0	22.0			22.0		136.0	131.6		119.8	115.0	
Actuated g/C Ratio	0.13	0.13			0.13		0.80	0.77		0.70	0.68	
v/c Ratio	1.62	0.23			0.50		0.13	0.98		0.14	0.66	
Control Delay	368.4	17.1			22.5		2.1	13.5		6.6	25.9	
Queue Delay	0.0	0.0			0.0		0.0	33.7		0.0	0.1	
Total Delay	368.4	17.1			22.5		2.1	47.2		6.6	25.9	
LOS	F	B			C		A	D		A	C	
Approach Delay		263.4			22.5			46.7			25.8	
Approach LOS		F			C			D			C	
Queue Length 50th (ft)	~217	1			31		3	866		2	887	
Queue Length 95th (ft)	#369	48			110		m3	m783		m5	926	
Internal Link Dist (ft)		376			816			811			119	
Turn Bay Length (ft)							150			300		
Base Capacity (vph)	84	255			319		213	2739		200	3427	
Starvation Cap Reductn	0	0			0		0	250		0	125	
Spillback Cap Reductn	0	0			2		0	75		0	0	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	1.62	0.23			0.51		0.13	1.08		0.07	0.69	

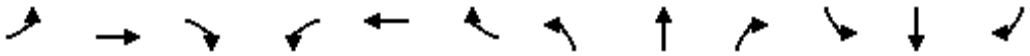
Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 100 (59%), Referenced to phase 2:SBTL, Start of Yellow			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.62			
Intersection Signal Delay: 44.9		Intersection LOS: D	
Intersection Capacity Utilization 99.6%		ICU Level of Service F	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Essen & Margaret Ann



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	5	6	72	5	236	0	2616	125	79	2029	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	100		0	150		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			150		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	0.91	0.91
Frt		0.964				0.850		0.993			0.999	
Flt Protected		0.974			0.955					0.950		
Satd. Flow (prot)	0	1749	0	0	1779	1583	0	5050	0	1770	5080	0
Flt Permitted		0.833			0.720					0.950		
Satd. Flow (perm)	0	1496	0	0	1341	1583	0	5050	0	1770	5080	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		7						10			2	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		496			1336			482			721	
Travel Time (s)		11.3			30.4			7.3			10.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	5	7	78	5	257	0	2843	136	86	2205	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	26	0	0	83	257	0	2979	0	86	2218	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45	45	45	290		45	290	
Trailing Detector (ft)	0	-6		0	-6	-6	0	284		-6	284	
Detector 1 Position(ft)	0	-6		0	-6	-6	0	-6		-6	-6	
Detector 1 Size(ft)	20	51		20	51	51	45	51		51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA	pt+ov		NA		Prot	NA	
Protected Phases		8			4	4 5		6		5	2	
Permitted Phases	8			4			6					
Detector Phase	8	8		4	4	4 5	6	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		15.0	15.0		3.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		21.0	21.0		9.0	21.0	
Total Split (s)	26.0	26.0		26.0	26.0		123.0	123.0		21.0	144.0	
Total Split (%)	15.3%	15.3%		15.3%	15.3%		72.4%	72.4%		12.4%	84.7%	
Maximum Green (s)	20.0	20.0		20.0	20.0		117.0	117.0		15.0	138.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0			6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		7.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		2.0	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		10.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		20.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		C-Min	C-Min		None	Min	
Act Effct Green (s)		19.9			19.9	38.0		120.0		12.2	138.1	
Actuated g/C Ratio		0.12			0.12	0.22		0.71		0.07	0.81	
v/c Ratio		0.14			0.53	0.73		0.84		0.68	0.54	
Control Delay		55.3			83.9	73.6		11.5		94.5	10.7	
Queue Delay		0.0			0.0	0.0		34.1		0.0	0.1	
Total Delay		55.3			83.9	73.6		45.6		94.5	10.9	
LOS		E			F	E		D		F	B	
Approach Delay		55.3			76.1			45.6			14.0	
Approach LOS		E			E			D			B	
Queue Length 50th (ft)		19			88	267		466		88	730	
Queue Length 95th (ft)		54			153	370		m590		152	530	
Internal Link Dist (ft)		416			1256			402			641	
Turn Bay Length (ft)						100				150		
Base Capacity (vph)		182			157	370		3566		156	4128	
Starvation Cap Reductn		0			0	0		589		0	404	
Spillback Cap Reductn		0			0	0		786		0	692	
Storage Cap Reductn		0			0	0		0		0	0	
Reduced v/c Ratio		0.14			0.53	0.69		1.07		0.55	0.65	

Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 114 (67%), Referenced to phase 6:NBTL, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 34.6		Intersection LOS: C	
Intersection Capacity Utilization 86.3%		ICU Level of Service E	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

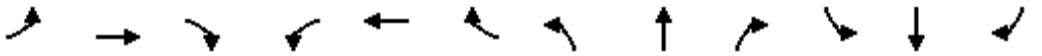
Splits and Phases: 9: Essen & Essen Park

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	556	312	1811	271	135	1298
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		0	150	
Storage Lanes	2	1		0	1	
Taper Length (ft)	25				100	
Lane Util. Factor	0.97	1.00	0.91	0.91	1.00	0.95
Frt		0.850	0.980			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	4984	0	1770	3539
Flt Permitted	0.950				0.038	
Satd. Flow (perm)	3433	1583	4984	0	71	3539
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			25			
Link Speed (mph)	30		45			45
Link Distance (ft)	1306		805			993
Travel Time (s)	29.7		12.2			15.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	604	339	1968	295	147	1411
Shared Lane Traffic (%)						
Lane Group Flow (vph)	604	339	2263	0	147	1411
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	52		20			25
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2		1	2
Detector Template						
Leading Detector (ft)	45	45	290		45	290
Trailing Detector (ft)	-6	-6	284		-6	284
Detector 1 Position(ft)	-6	-6	-6		-6	-6
Detector 1 Size(ft)	51	51	51		51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			284			284
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	pt+ov	NA		pm+pt	NA
Protected Phases	4	4 5	6		5	2
Permitted Phases					2	
Detector Phase	4	4 5	6		5	2

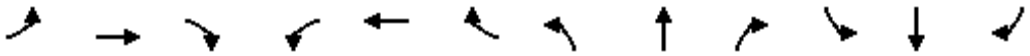
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	3.0		15.0		5.0	15.0
Minimum Split (s)	9.0		21.0		11.0	21.0
Total Split (s)	48.0		97.0		25.0	122.0
Total Split (%)	28.2%		57.1%		14.7%	71.8%
Maximum Green (s)	42.0		91.0		19.0	116.0
Yellow Time (s)	5.0		5.0		5.0	5.0
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	6.0		6.0		6.0	6.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0		5.0		2.0	5.0
Minimum Gap (s)	0.2		3.0		0.2	3.0
Time Before Reduce (s)	0.0		15.0		0.0	15.0
Time To Reduce (s)	0.0		15.0		0.0	15.0
Recall Mode	None		C-Min		None	Min
Act Effct Green (s)	35.0	60.0	98.0		123.0	123.0
Actuated g/C Ratio	0.21	0.35	0.58		0.72	0.72
v/c Ratio	0.86	0.61	0.78		0.61	0.55
Control Delay	77.2	49.8	21.8		65.1	8.7
Queue Delay	0.0	0.0	0.2		0.0	0.1
Total Delay	77.2	49.8	22.0		65.1	8.8
LOS	E	D	C		E	A
Approach Delay	67.4		22.0			14.1
Approach LOS	E		C			B
Queue Length 50th (ft)	337	311	746		122	415
Queue Length 95th (ft)	391	398	987		m179	m316
Internal Link Dist (ft)	1226		725			913
Turn Bay Length (ft)		100			150	
Base Capacity (vph)	848	623	2883		241	2560
Starvation Cap Reductn	0	0	125		0	223
Spillback Cap Reductn	0	0	0		0	80
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.71	0.54	0.82		0.61	0.60

Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 0 (0%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 28.4		Intersection LOS: C	
Intersection Capacity Utilization 79.4%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 17: Essen & United Plaza South



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	999	78	169	158	36	307	33	1202	55	245	1559	296
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	425		0	0		280	150		0	550		300
Storage Lanes	1		1	0		1	1		0	1		1
Taper Length (ft)	100			200			25			100		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	1.00
Frt			0.850			0.850		0.993				0.850
Flt Protected	0.950	0.959			0.961		0.950			0.950		
Satd. Flow (prot)	1681	1697	1583	0	1790	1583	1770	3514	0	1770	5085	1583
Flt Permitted	0.950	0.959			0.961		0.066			0.060		
Satd. Flow (perm)	1681	1697	1583	0	1790	1583	123	3514	0	112	5085	1583
Right Turn on Red			Yes			No			Yes			No
Satd. Flow (RTOR)			103					3				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1908			1396			1335			891	
Travel Time (s)		43.4			31.7			20.2			13.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1086	85	184	172	39	334	36	1307	60	266	1695	322
Shared Lane Traffic (%)	46%											
Lane Group Flow (vph)	586	585	184	0	211	334	36	1367	0	266	1695	322
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		45			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	0	1	1	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	0	45	45	45	45	290		45	290	0
Trailing Detector (ft)	-6	-6	0	0	-6	-6	-6	284		-6	284	0
Detector 1 Position(ft)	-6	-6	0	0	-6	-6	-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	20	45	51	51	51	51		51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Call
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	Perm	Split	NA	pt+ov	pm+pt	NA		pm+pt	NA	pt+ov
Protected Phases	8	8		4	4	4 5	1	6		5	2	2 8
Permitted Phases			8				6			2		
Detector Phase	8	8	8	4	4	4 5	1	6		5	2	2 8

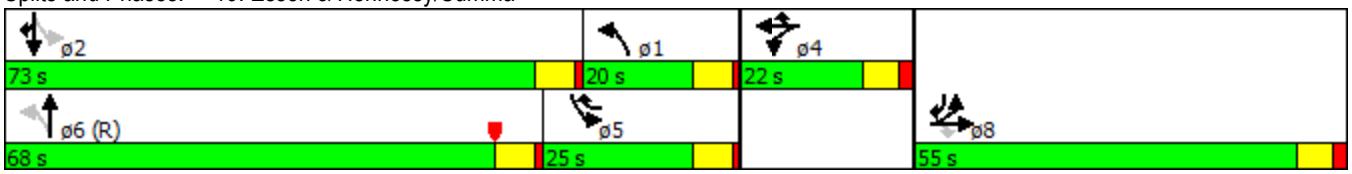


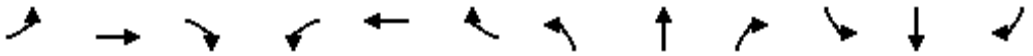
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.5	14.5	14.5	14.5	14.5		9.0	21.0		9.0	21.0	
Total Split (s)	55.0	55.0	55.0	22.0	22.0		20.0	68.0		25.0	73.0	
Total Split (%)	32.4%	32.4%	32.4%	12.9%	12.9%		11.8%	40.0%		14.7%	42.9%	
Maximum Green (s)	48.5	48.5	48.5	15.5	15.5		14.0	62.0		19.0	67.0	
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5	6.5		6.5		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		2.0	2.0		2.0	2.5	
Minimum Gap (s)	0.2	0.2	0.2	0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None	None	None	None		None	C-Min		None	Min	
Act Effct Green (s)	48.5	48.5	48.5		15.5	40.5	76.2	62.0		83.2	68.0	123.0
Actuated g/C Ratio	0.29	0.29	0.29		0.09	0.24	0.45	0.36		0.49	0.40	0.72
v/c Ratio	1.22	1.21	0.35		1.29	0.89	0.18	1.07		1.11	0.83	0.28
Control Delay	167.3	161.8	22.6		226.3	87.3	23.6	78.1		130.8	21.0	2.7
Queue Delay	0.7	0.7	0.0		0.0	0.0	0.0	14.2		0.0	0.0	0.0
Total Delay	168.0	162.5	22.6		226.3	87.3	23.6	92.4		130.8	21.0	2.7
LOS	F	F	C		F	F	C	F		F	C	A
Approach Delay		145.9			141.1			90.6			31.2	
Approach LOS		F			F			F			C	
Queue Length 50th (ft)	~840	~832	69		~298	363	8	~884		~295	647	27
Queue Length 95th (ft)	#1097	#1089	144		#478	#545	m14	#1026		#490	556	35
Internal Link Dist (ft)		1828			1316			1255			811	
Turn Bay Length (ft)	425					280	150			550		300
Base Capacity (vph)	479	484	525		163	377	219	1283		239	2124	1173
Starvation Cap Reductn	0	0	0		0	0	0	0		0	0	0
Spillback Cap Reductn	37	37	0		0	0	0	67		0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0		0	0	0
Reduced v/c Ratio	1.33	1.31	0.35		1.29	0.89	0.16	1.12		1.11	0.80	0.27

Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 79 (46%), Referenced to phase 6:NBTL, Start of Yellow			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.29			
Intersection Signal Delay: 84.7		Intersection LOS: F	
Intersection Capacity Utilization 100.4%		ICU Level of Service G	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

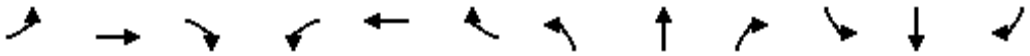
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Essen & Hennessy/Summa





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	160	152	222	65	75	68	75	1062	68	98	1726	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	150		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91
Frt		0.911			0.929			0.991			0.995	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1697	0	1770	1730	0	1770	3507	0	1770	5060	0
Flt Permitted	0.550			0.134			0.049			0.177		
Satd. Flow (perm)	1025	1697	0	250	1730	0	91	3507	0	330	5060	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		41			26			6			5	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1062			1416			1475			1335	
Travel Time (s)		24.1			32.2			22.3			20.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	165	241	71	82	74	82	1154	74	107	1876	67
Shared Lane Traffic (%)												
Lane Group Flow (vph)	174	406	0	71	156	0	82	1228	0	107	1943	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template												
Leading Detector (ft)	45	45		45	45		45	290		45	290	
Trailing Detector (ft)	-6	-6		-6	-6		-6	284		-6	284	
Detector 1 Position(ft)	-6	-6		-6	-6		-6	-6		-6	-6	
Detector 1 Size(ft)	51	51		51	51		51	51		51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		1	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		2.0	15.0		3.0	15.0	
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	21.0		9.0	21.0	
Total Split (s)	48.0	48.0		48.0	48.0		19.0	103.0		19.0	103.0	
Total Split (%)	28.2%	28.2%		28.2%	28.2%		11.2%	60.6%		11.2%	60.6%	
Maximum Green (s)	43.0	43.0		43.0	43.0		13.0	97.0		13.0	97.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Act Effct Green (s)	43.0	43.0		43.0	43.0		97.0	97.0		100.8	100.8	
Actuated g/C Ratio	0.25	0.25		0.25	0.25		0.57	0.57		0.59	0.59	
v/c Ratio	0.67	0.88		1.13	0.34		0.58	0.61		0.35	0.65	
Control Delay	71.5	76.0		206.6	45.4		41.0	25.6		8.1	6.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	71.5	76.0		206.6	45.4		41.0	25.6		8.1	6.2	
LOS	E	E		F	D		D	C		A	A	
Approach Delay		74.7			95.8			26.6			6.3	
Approach LOS		E			F			C			A	
Queue Length 50th (ft)	176	401		~91	119		40	460		17	116	
Queue Length 95th (ft)	274	#595		#208	192		97	531		m23	m128	
Internal Link Dist (ft)		982			1336			1395			1255	
Turn Bay Length (ft)	225			150			150			150		
Base Capacity (vph)	259	459		63	457		180	2003		305	3002	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.67	0.88		1.13	0.34		0.46	0.61		0.35	0.65	

Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 88 (52%), Referenced to phase 6:NBTL, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.13			
Intersection Signal Delay: 27.1		Intersection LOS: C	
Intersection Capacity Utilization 82.4%		ICU Level of Service E	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Essen & Picardy

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	444	156	2242	11	49	1085
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	125		125	125	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.88	0.91	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2787	5085	1583	1770	3539
Flt Permitted	0.950				0.035	
Satd. Flow (perm)	1770	2787	5085	1583	65	3539
Right Turn on Red		Yes		No		
Satd. Flow (RTOR)		102				
Link Speed (mph)	30		45			45
Link Distance (ft)	1179		993			571
Travel Time (s)	26.8		15.0			8.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	483	170	2437	12	53	1179
Shared Lane Traffic (%)						
Lane Group Flow (vph)	483	170	2437	12	53	1179
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	42		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template						
Leading Detector (ft)	45	45	290	45	45	290
Trailing Detector (ft)	-6	-6	284	-6	-6	284
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			284			284
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	pt+ov	pm+pt	NA
Protected Phases	4		6	6 4	5	2
Permitted Phases		4			2	
Detector Phase	4	4	6	6 4	5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	5.0	5.0	15.0		3.0	15.0
Minimum Split (s)	11.0	11.0	21.0		9.0	21.0
Total Split (s)	40.0	40.0	110.0		20.0	130.0
Total Split (%)	23.5%	23.5%	64.7%		11.8%	76.5%
Maximum Green (s)	34.0	34.0	104.0		14.0	124.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0
Recall Mode	None	None	C-Min		None	Min
Act Effct Green (s)	37.0	37.0	110.7	154.9	121.0	121.0
Actuated g/C Ratio	0.22	0.22	0.65	0.91	0.71	0.71
v/c Ratio	1.25	0.25	0.74	0.01	0.48	0.47
Control Delay	184.3	24.1	12.8	0.5	58.3	5.1
Queue Delay	0.0	0.0	0.7	0.0	0.0	0.1
Total Delay	184.3	24.1	13.5	0.5	58.3	5.2
LOS	F	C	B	A	E	A
Approach Delay	142.6		13.5			7.5
Approach LOS	F		B			A
Queue Length 50th (ft)	~706	35	934	1	15	123
Queue Length 95th (ft)	#939	76	180	m0	73	72
Internal Link Dist (ft)	1099		913			491
Turn Bay Length (ft)		125		125	125	
Base Capacity (vph)	386	687	3310	1442	186	2581
Starvation Cap Reductn	0	0	470	0	0	377
Spillback Cap Reductn	0	4	210	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.25	0.25	0.86	0.01	0.28	0.53

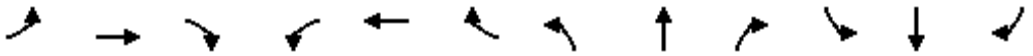
Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 20 (12%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.25			
Intersection Signal Delay: 31.2		Intersection LOS: C	
Intersection Capacity Utilization 77.9%		ICU Level of Service D	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

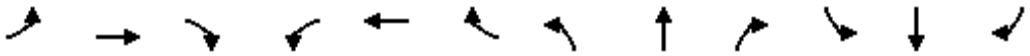
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 28: Essen & United Plaza North



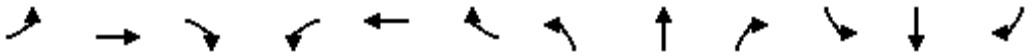
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	59	0	19	104	1	364	15	2369	14	34	1011	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		100	175		0	150		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	0.95
Frt		0.850				0.850		0.999			0.994	
Flt Protected	0.950				0.953		0.950			0.950		
Satd. Flow (prot)	1770	1583	0	0	1775	1583	1770	5080	0	1770	3518	0
Flt Permitted	0.626				0.713		0.211			0.043		
Satd. Flow (perm)	1166	1583	0	0	1328	1583	393	5080	0	80	3518	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		247						1			4	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		757			843			571			472	
Travel Time (s)		17.2			19.2			8.7			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	64	0	21	113	1	396	16	2575	15	37	1099	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	64	21	0	0	114	396	16	2590	0	37	1141	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290		45	390	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284		-6	384	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6		-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51		51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			384	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		8		7	4	4 5	1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4	4 5	1	6		5	2	



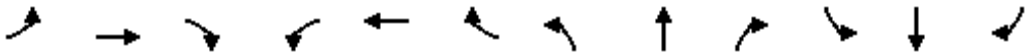
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	31.0		11.0	31.0	
Total Split (s)	17.0	17.0		27.0	44.0		16.0	110.0		16.0	110.0	
Total Split (%)	10.0%	10.0%		15.9%	25.9%		9.4%	64.7%		9.4%	64.7%	
Maximum Green (s)	11.0	11.0		21.0	38.0		10.0	104.0		10.0	104.0	
Yellow Time (s)	4.5	4.5		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		2.0	2.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag		Lead			Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	3.0		0.2	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	36.2	36.2			36.2	50.2	107.8	107.8		105.2	105.2	
Actuated g/C Ratio	0.21	0.21			0.21	0.30	0.63	0.63		0.62	0.62	
v/c Ratio	0.26	0.04			0.40	0.85	0.04	0.80		0.29	0.52	
Control Delay	58.0	0.2			61.8	73.4	2.9	9.3		30.4	28.0	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.3		0.0	0.3	
Total Delay	58.0	0.2			61.8	73.4	2.9	9.6		30.4	28.4	
LOS	E	A			E	E	A	A		C	C	
Approach Delay		43.7			70.8			9.5			28.4	
Approach LOS		D			E			A			C	
Queue Length 50th (ft)	59	0			109	415	1	1018		6	273	
Queue Length 95th (ft)	110	0			178	546	m1	162		45	756	
Internal Link Dist (ft)		677			763			491			392	
Turn Bay Length (ft)	75					100	175			150		
Base Capacity (vph)	248	531			296	475	412	3221		148	2388	
Starvation Cap Reductn	0	0			0	0	0	0		0	598	
Spillback Cap Reductn	0	0			0	0	0	168		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.26	0.04			0.39	0.83	0.04	0.85		0.25	0.64	

Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 10 (6%), Referenced to phase 2:SBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 22.4		Intersection LOS: C	
Intersection Capacity Utilization 87.8%		ICU Level of Service E	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 29: Essen & Sholar/Archives



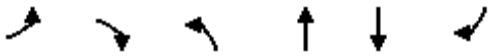
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	207	0	42	0	0	0	0	1628	1164	0	1042	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.949							0.850			
Flt Protected	0.950	0.968										
Satd. Flow (prot)	1681	1626	0	0	0	0	0	3539	1583	0	3539	0
Flt Permitted	0.950	0.968										
Satd. Flow (perm)	1681	1626	0	0	0	0	0	3539	1583	0	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		51							632			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		995			508			472			1384	
Travel Time (s)		22.6			11.5			7.2			21.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	225	0	46	0	0	0	0	1770	1265	0	1133	0
Shared Lane Traffic (%)	39%											
Lane Group Flow (vph)	137	134	0	0	0	0	0	1770	1265	0	1133	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1						2	1		2	
Detector Template												
Leading Detector (ft)	45	45						290	45		290	
Trailing Detector (ft)	-6	-6						284	-6		284	
Detector 1 Position(ft)	-6	-6						-6	-6		-6	
Detector 1 Size(ft)	51	51						51	51		51	
Detector 1 Type	Cl+Ex	Cl+Ex						Call	Cl+Ex		Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0		0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA						NA	Free		NA	
Protected Phases		8						6			2	
Permitted Phases	8								Free			
Detector Phase	8	8						6			2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	10.0	10.0						25.0			25.0	
Minimum Split (s)	17.0	17.0						32.0			32.0	
Total Split (s)	25.0	25.0						60.0			60.0	
Total Split (%)	29.4%	29.4%						70.6%			70.6%	
Maximum Green (s)	18.0	18.0						53.0			53.0	
Yellow Time (s)	5.0	5.0						5.0			5.0	
All-Red Time (s)	2.0	2.0						2.0			2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	7.0	7.0						7.0			7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5						5.0			5.0	
Minimum Gap (s)	0.2	0.2						3.0			3.0	
Time Before Reduce (s)	0.0	0.0						15.0			15.0	
Time To Reduce (s)	0.0	0.0						15.0			15.0	
Recall Mode	None	None						C-Max			Max	
Act Effct Green (s)	12.5	12.5						58.5	85.0		58.5	
Actuated g/C Ratio	0.15	0.15						0.69	1.00		0.69	
v/c Ratio	0.55	0.48						0.73	0.80		0.47	
Control Delay	42.0	26.2						14.6	14.2		7.2	
Queue Delay	0.0	0.4						0.6	0.0		0.1	
Total Delay	42.0	26.6						15.2	14.2		7.2	
LOS	D	C						B	B		A	
Approach Delay		34.4						14.8			7.2	
Approach LOS		C						B			A	
Queue Length 50th (ft)	73	43						0	418		121	
Queue Length 95th (ft)	125	93						736	492		195	
Internal Link Dist (ft)		915			428			392			1304	
Turn Bay Length (ft)	400											
Base Capacity (vph)	355	384						2435	1583		2435	
Starvation Cap Reductn	0	0						293	0		0	
Spillback Cap Reductn	0	57						0	0		217	
Storage Cap Reductn	0	0						0	0		0	
Reduced v/c Ratio	0.39	0.41						0.83	0.80		0.51	

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 85			
Offset: 39 (46%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 14.0		Intersection LOS: B	
Intersection Capacity Utilization 65.0%		ICU Level of Service C	
Analysis Period (min) 15			

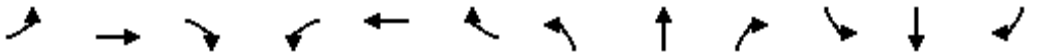
Splits and Phases: 32: Essen & I-12 EB



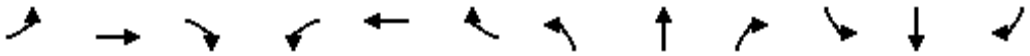
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	94	116	94	2647	1991	116
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	50			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.91	0.91
Frt		0.850			0.992	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	5045	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	3539	5045	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	401			199	482	
Travel Time (s)	9.1			3.0	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	102	126	102	2877	2164	126
Shared Lane Traffic (%)						
Lane Group Flow (vph)	102	126	102	2877	2290	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 85.0%		ICU Level of Service E	
Analysis Period (min) 15			

M.6 2015 EXISTING PM – BLUEBONNET BOULEVARD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	249	880	97	288	637	197	167	1049	99	396	1032	205
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		250	325		375	350		0	250		150
Storage Lanes	2		1	2		1	2		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Frt			0.850			0.850		0.987				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3493	0	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3493	0	3433	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								7				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		2445			3864			2201			709	
Travel Time (s)		37.0			58.5			33.3			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	262	926	102	303	671	207	176	1104	104	417	1086	216
Shared Lane Traffic (%)												
Lane Group Flow (vph)	262	926	102	303	671	207	176	1208	0	417	1086	216
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45	45	290		45	290	45
Trailing Detector (ft)	-6	284	-6	-6	284	-6	-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6	-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51	51	51		51	51	51
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		284			284			284			284	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Extend			Extend			Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8		7	4	4 5
Permitted Phases												
Detector Phase	5	2	2 3	1	6	6 7	3	8		7	4	4 5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	10.0		4.0	10.0	
Minimum Split (s)	11.0	34.5		11.0	37.5		11.0	41.0		11.0	41.0	
Total Split (s)	25.0	50.0		15.0	40.0		40.0	65.0		30.0	55.0	
Total Split (%)	15.6%	31.3%		9.4%	25.0%		25.0%	40.6%		18.8%	34.4%	
Maximum Green (s)	18.0	43.5		8.0	33.5		33.0	58.0		23.0	48.0	
Yellow Time (s)	5.0	4.5		5.0	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	6.5		7.0	6.5		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.3		3.0	4.3		3.0	3.9		3.0	3.9	
Minimum Gap (s)	0.2	2.2		0.2	2.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	15.0		0.0	15.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0		0.0	10.0		0.0	10.0	
Recall Mode	None	Min		None	Min		None	Min		None	C-Min	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		23.0			26.0			29.0			29.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	16.5	42.8	74.2	10.1	36.5	65.8	30.9	57.3		22.3	48.7	65.1
Actuated g/C Ratio	0.10	0.27	0.46	0.06	0.23	0.41	0.19	0.36		0.14	0.30	0.41
v/c Ratio	0.74	0.98	0.14	1.40	0.83	0.32	0.27	0.96		0.87	1.01	0.34
Control Delay	82.9	81.7	15.0	253.8	69.2	34.3	55.4	67.7		77.2	70.3	17.1
Queue Delay	69.6	0.0	0.0	0.0	0.0	2.3	0.0	0.1		0.0	0.0	0.0
Total Delay	152.5	81.7	15.0	253.8	69.2	36.6	55.4	67.8		77.2	70.3	17.1
LOS	F	F	B	F	E	D	E	E		E	E	B
Approach Delay		90.8			110.8			66.2			65.3	
Approach LOS		F			F			E			E	
Queue Length 50th (ft)	138	506	42	~242	363	149	80	644		215	~634	114
Queue Length 95th (ft)	189	#645	70	#345	#474	220	118	#791		#300	#763	110
Internal Link Dist (ft)		2365			3784			2121			629	
Turn Bay Length (ft)	440		250	325		375	350			250		150
Base Capacity (vph)	386	962	761	217	807	658	708	1270		493	1076	659
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	252	0	0	0	0	327	0	2		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	1.96	0.96	0.13	1.40	0.83	0.63	0.25	0.95		0.85	1.01	0.33

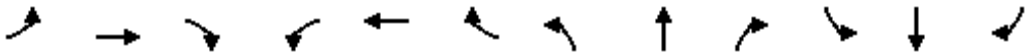
Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 160			
Offset: 0 (0%), Referenced to phase 4:SBT, Start of Yellow			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.40			
Intersection Signal Delay: 81.1		Intersection LOS: F	
Intersection Capacity Utilization 98.9%		ICU Level of Service F	

Analysis Period (min) 15

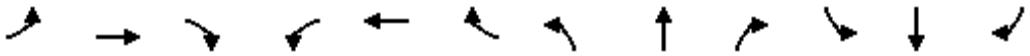
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Bluebonnet & Perkins



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	91	13	52	71	14	176	22	1437	36	291	1482	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		125	160		160	175		0
Storage Lanes	1		0	0		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.880				0.850			0.850		0.993	
Flt Protected	0.950				0.960		0.950			0.950		
Satd. Flow (prot)	1770	1639	0	0	1788	1583	1770	3539	1583	3433	3514	0
Flt Permitted	0.699				0.567		0.950			0.950		
Satd. Flow (perm)	1302	1639	0	0	1056	1583	1770	3539	1583	3433	3514	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		55									7	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		511			1048			709			2556	
Travel Time (s)		11.6			23.8			10.7			38.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	96	14	55	75	15	185	23	1513	38	306	1560	75
Shared Lane Traffic (%)												
Lane Group Flow (vph)	96	69	0	0	90	185	23	1513	38	306	1635	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290	45	45	290	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284	-6	-6	284	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6	-6	-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	
Protected Phases		8		7	4	4 5	1	6	6 7	5	2	
Permitted Phases	8			4								
Detector Phase	8	8		7	4	4 5	1	6	6 7	5	2	

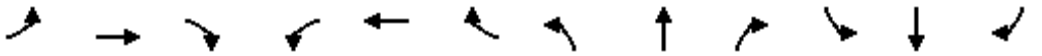


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		3.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	11.0	11.0		9.0	11.0		9.0	21.0		9.0	21.0	
Total Split (s)	14.0	14.0		13.0	27.0		13.0	113.0		20.0	120.0	
Total Split (%)	8.8%	8.8%		8.1%	16.9%		8.1%	70.6%		12.5%	75.0%	
Maximum Green (s)	8.0	8.0		7.0	21.0		7.0	107.0		14.0	114.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		1.5	2.0		1.5	4.0		1.5	4.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	23.1	23.1			32.1	60.3	5.9	87.7	92.6	22.2	108.2	
Actuated g/C Ratio	0.14	0.14			0.20	0.38	0.04	0.55	0.58	0.14	0.68	
v/c Ratio	0.51	0.24			0.39	0.31	0.35	0.78	0.04	0.64	0.69	
Control Delay	74.7	23.4			60.4	36.6	66.3	54.0	13.1	71.3	18.1	
Queue Delay	0.0	0.0			0.0	0.0	0.0	1.0	0.0	0.0	0.0	
Total Delay	74.7	23.4			60.4	36.6	66.3	54.9	13.1	71.3	18.1	
LOS	E	C			E	D	E	D	B	E	B	
Approach Delay		53.2			44.4			54.1			26.5	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	95	13			80	137	24	865	14	160	569	
Queue Length 95th (ft)	#197	66			141	200	m32	m758	m23	202	599	
Internal Link Dist (ft)		431			968			629			2476	
Turn Bay Length (ft)	100					125	160		160	175		
Base Capacity (vph)	188	283			230	596	77	2366	1127	477	2516	
Starvation Cap Reductn	0	0			0	0	0	534	0	0	0	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.51	0.24			0.39	0.31	0.30	0.83	0.03	0.64	0.65	

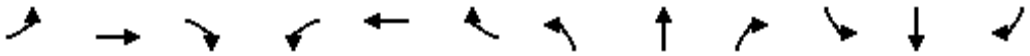
Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 160			
Offset: 29 (18%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 39.8		Intersection LOS: D	
Intersection Capacity Utilization 74.7%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Bluebonnet & Park Rowe



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	539	5	90	26	2	50	17	1684	3	18	1754	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	475		475	50		0	425		0	130		130
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.855							0.850
Flt Protected	0.950	0.953		0.950			0.950			0.950		
Satd. Flow (prot)	1681	1686	1583	1770	1593	0	1770	3539	0	1770	3539	1583
Flt Permitted	0.950	0.953		0.950			0.950			0.950		
Satd. Flow (perm)	1681	1686	1583	1770	1593	0	1770	3539	0	1770	3539	1583
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)					53							
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1004			740			2556			469	
Travel Time (s)		22.8			16.8			38.7			7.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	567	5	95	27	2	53	18	1773	3	19	1846	127
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	283	289	95	27	55	0	18	1776	0	19	1846	127
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	45	45	45		45	290		45	290	45
Trailing Detector (ft)	-6	-6	-6	-6	-6		-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6		-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51		51	51		51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA		Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4		1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4		1	6		5	2	2 8



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.5	25.5		8.5	25.5	
Total Split (s)	24.0	24.0		15.5	15.5		19.0	96.0		14.5	91.5	
Total Split (%)	16.0%	16.0%		10.3%	10.3%		12.7%	64.0%		9.7%	61.0%	
Maximum Green (s)	19.0	19.0		10.5	10.5		13.5	90.5		9.0	86.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	6.0		3.0	6.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	24.4	24.4	37.6	9.5	9.5		11.7	95.1		7.2	86.0	115.4
Actuated g/C Ratio	0.16	0.16	0.25	0.06	0.06		0.08	0.63		0.05	0.57	0.77
v/c Ratio	1.04	1.06	0.24	0.24	0.37		0.13	0.79		0.23	0.91	0.10
Control Delay	123.4	127.8	36.2	71.9	24.2		65.4	24.3		78.0	28.9	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.2		0.0	5.2		0.0	0.0	0.0
Total Delay	123.4	127.8	36.2	71.9	24.4		65.4	29.5		78.0	28.9	6.6
LOS	F	F	D	E	C		E	C		E	C	A
Approach Delay		112.9			40.0			29.8			27.9	
Approach LOS		F			D			C			C	
Queue Length 50th (ft)	~369	~382	64	26	2		17	672		18	512	27
Queue Length 95th (ft)	#577	#589	110	60	49		44	806		m41	586	55
Internal Link Dist (ft)		924			660			2476			389	
Turn Bay Length (ft)	475		475	50			425			130		130
Base Capacity (vph)	273	273	403	123	160		159	2242		106	2029	1217
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	5		0	405		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	1.04	1.06	0.24	0.22	0.35		0.11	0.97		0.18	0.91	0.10

Intersection Summary

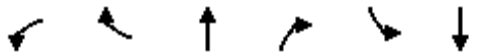
Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 99 (66%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.06
Intersection Signal Delay: 41.4 Intersection LOS: D
Intersection Capacity Utilization 79.0% ICU Level of Service D
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Bluebonnet & Anselmo



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Lane Configurations									
Volume (vph)	320	74	1866	407	84	1573			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	0	100		150	350				
Storage Lanes	2	1		1	1				
Taper Length (ft)	25				25				
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.91			
Frt		0.850		0.850					
Flt Protected	0.950				0.950				
Satd. Flow (prot)	3433	1583	3539	1583	1770	5085			
Flt Permitted	0.950				0.950				
Satd. Flow (perm)	3433	1583	3539	1583	1770	5085			
Right Turn on Red		No		No					
Satd. Flow (RTOR)									
Link Speed (mph)	30		45			45			
Link Distance (ft)	352		390			974			
Travel Time (s)	8.0		5.9			14.8			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95			
Adj. Flow (vph)	337	78	1964	428	88	1656			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	337	78	1964	428	88	1656			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Right	Left	Left			
Median Width(ft)	35		20			20			
Link Offset(ft)	0		0			0			
Crosswalk Width(ft)	16		16			16			
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Turning Speed (mph)	15	9		9	15				
Number of Detectors	1	1	2	1	1	2			
Detector Template									
Leading Detector (ft)	45	45	290	45	45	290			
Trailing Detector (ft)	-6	-6	284	-6	-6	284			
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			
Detector 1 Size(ft)	51	51	51	51	51	51			
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call			
Detector 1 Channel									
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)			284			284			
Detector 2 Size(ft)			6			6			
Detector 2 Type			Extend			Extend			
Detector 2 Channel									
Detector 2 Extend (s)			0.0			0.0			
Turn Type	Prot	pt+ov	NA	pt+ov	Prot	NA			
Protected Phases	4	4 3	1	1 4	3	2	5	7	8
Permitted Phases									
Detector Phase	4	4 3	1	1 4	3	2			

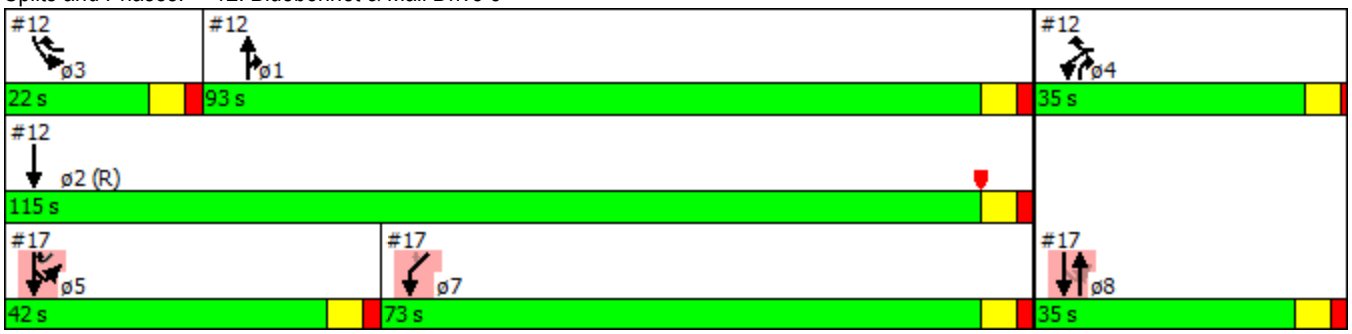
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Switch Phase									
Minimum Initial (s)	4.0		24.0		4.0	34.0	4.0	4.0	34.0
Minimum Split (s)	10.0		30.0		10.0	40.0	10.0	22.0	40.0
Total Split (s)	35.0		93.0		22.0	115.0	42.0	73.0	35.0
Total Split (%)	23.3%		62.0%		14.7%	76.7%	28%	49%	23%
Maximum Green (s)	30.0		87.0		16.0	109.0	36.0	67.0	29.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0			
Total Lost Time (s)	5.0		6.0		6.0	6.0			
Lead/Lag			Lag		Lead		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	
Vehicle Extension (s)	2.5		4.3		2.0	4.3	2.5	3.0	4.3
Minimum Gap (s)	0.2		2.2		0.2	2.2	0.2	3.0	2.2
Time Before Reduce (s)	0.0		20.0		0.0	30.0	0.0	0.0	30.0
Time To Reduce (s)	0.0		15.0		0.0	15.0	0.0	0.0	15.0
Recall Mode	None		Min		None	C-Min	None	None	Min
Walk Time (s)								5.0	
Flash Dont Walk (s)								11.0	
Pedestrian Calls (#/hr)								0	
Act Effct Green (s)	32.0	49.8	89.2	126.2	11.8	107.0			
Actuated g/C Ratio	0.21	0.33	0.59	0.84	0.08	0.71			
v/c Ratio	0.46	0.15	0.93	0.32	0.63	0.46			
Control Delay	39.0	30.3	29.9	1.6	105.6	2.0			
Queue Delay	0.4	0.0	9.0	0.0	0.3	0.0			
Total Delay	39.5	30.3	38.9	1.6	106.0	2.0			
LOS	D	C	D	A	F	A			
Approach Delay	37.8		32.2			7.2			
Approach LOS	D		C			A			
Queue Length 50th (ft)	102	41	966	17	90	60			
Queue Length 95th (ft)	126	67	m1074	m32	m128	41			
Internal Link Dist (ft)	272		310			894			
Turn Bay Length (ft)		100		150	350				
Base Capacity (vph)	732	569	2103	1331	188	3695			
Starvation Cap Reductn	118	0	148	0	0	0			
Spillback Cap Reductn	0	0	0	22	8	24			
Storage Cap Reductn	0	0	0	0	0	0			
Reduced v/c Ratio	0.55	0.14	1.00	0.33	0.49	0.45			

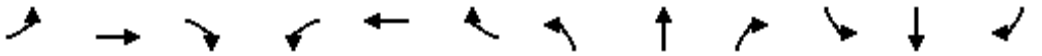
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 114 (76%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 130			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.93			
Intersection Signal Delay: 23.1		Intersection LOS: C	
Intersection Capacity Utilization 79.5%		ICU Level of Service D	

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

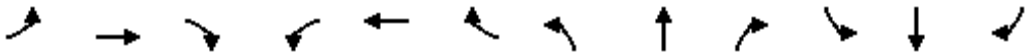
Splits and Phases: 12: Bluebonnet & Mall Drive 3





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	662	289	218	67	67	55	85	1832	23	201	1706	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	140		140	200		200	200		160
Storage Lanes	2		0	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		0.936				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3313	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3313	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		112										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1050			403			974			1065	
Travel Time (s)		23.9			9.2			14.8			16.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	697	304	229	71	71	58	89	1928	24	212	1796	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	697	533	0	71	71	58	89	1928	24	212	1796	25
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			36			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pt+ov
Protected Phases	3	2		9	8	8 6	1	10	10 9	6	5	5 3
Permitted Phases												
Detector Phase	3	2		9	8	8 6	1	10	10 9	6	5	5 3

Lane Group	ø11	ø12	ø13	ø14
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	11	12	13	14
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	21.0		3.0	21.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		11.0	27.0		11.0	27.0	
Total Split (s)	33.0	33.0		14.0	14.0		21.0	87.0		16.0	82.0	
Total Split (%)	22.0%	22.0%		9.3%	9.3%		14.0%	58.0%		10.7%	54.7%	
Maximum Green (s)	27.0	27.0		8.0	8.0		15.0	81.0		10.0	76.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.0		1.0	1.0		3.0	4.3		1.0	4.3	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	28.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	15.0	
Recall Mode	None	None		None	None		None	None		None	C-Min	
Act Effct Green (s)	33.6	33.6		7.4	7.4	17.4	22.5	75.0	88.4	10.0	62.5	102.1
Actuated g/C Ratio	0.22	0.22		0.05	0.05	0.12	0.15	0.50	0.59	0.07	0.42	0.68
v/c Ratio	0.91	0.64		0.42	0.41	0.32	0.34	0.76	0.03	0.93	0.85	0.02
Control Delay	72.7	46.6		75.1	74.5	66.8	42.0	15.0	3.6	131.5	18.9	2.8
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.7	46.6		75.1	74.5	66.8	42.0	15.0	3.6	131.5	18.9	2.8
LOS	E	D		E	E	E	D	B	A	F	B	A
Approach Delay		61.4			72.5			16.0			30.4	
Approach LOS		E			E			B			C	
Queue Length 50th (ft)	351	202		37	38	54	68	153	2	98	462	3
Queue Length 95th (ft)	#533	281		67	68	104	m81	184	m2	#186	60	3
Internal Link Dist (ft)		970			323			894			985	
Turn Bay Length (ft)	150			140		140	200		200	200		160
Base Capacity (vph)	768	828		185	190	190	265	2745	929	228	2576	1219
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.64		0.38	0.37	0.31	0.34	0.70	0.03	0.93	0.70	0.02

Intersection Summary

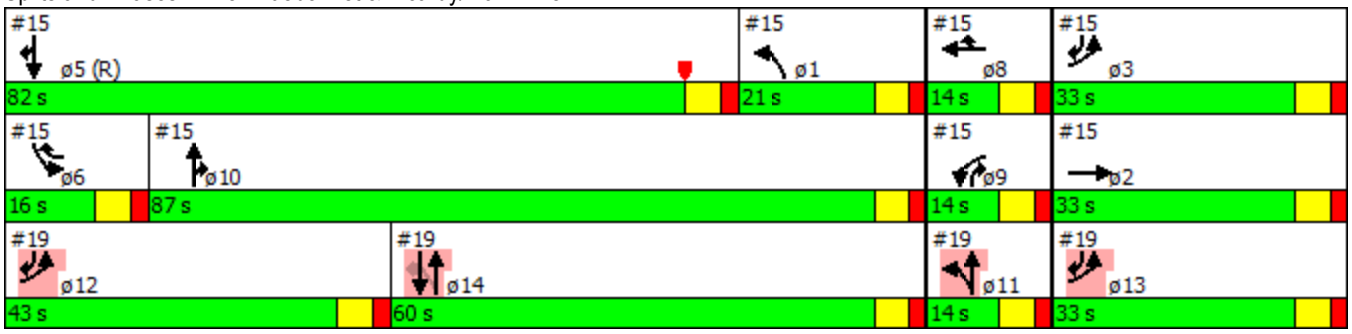
Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 90 (60%), Referenced to phase 5:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 33.5 Intersection LOS: C
Intersection Capacity Utilization 83.3% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

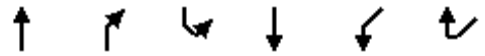
Lane Group	ø11	ø12	ø13	ø14
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	3.0
Minimum Split (s)	10.0	22.0	10.0	9.0
Total Split (s)	14.0	43.0	33.0	60.0
Total Split (%)	9%	29%	22%	40%
Maximum Green (s)	8.0	37.0	27.0	54.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	1.0
Minimum Gap (s)	3.0	3.0	3.0	0.2
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

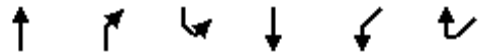
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 15: Bluebonnet & Picardy/Mall Drive 2





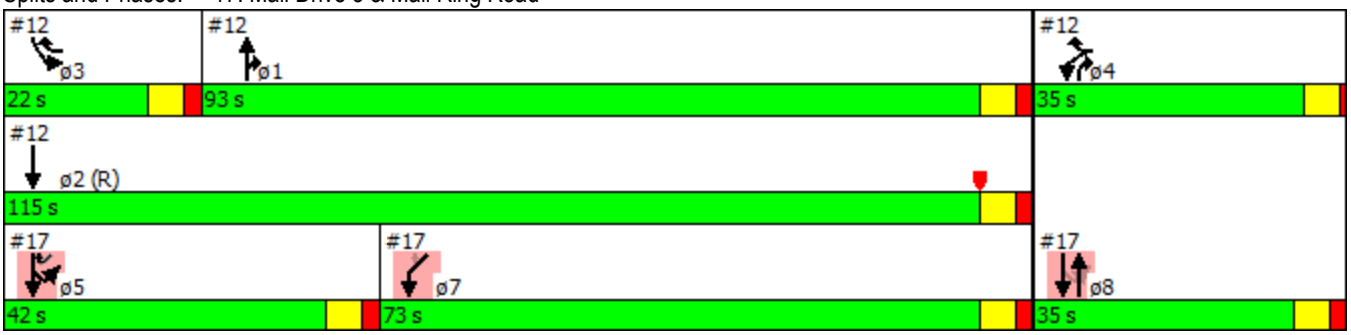
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Lane Configurations										
Volume (vph)	224	191	252	239	184	170				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00				
Frt	0.931					0.850				
Flt Protected			0.950		0.950					
Satd. Flow (prot)	3295	0	1770	1863	1770	1583				
Flt Permitted			0.300		0.950					
Satd. Flow (perm)	3295	0	559	1863	1770	1583				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)	129					185				
Link Speed (mph)	30			30	30					
Link Distance (ft)	797			352	1050					
Travel Time (s)	18.1			8.0	23.9					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Adj. Flow (vph)	243	208	274	260	200	185				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	451	0	274	260	200	185				
Enter Blocked Intersection	No	No	No	No	No	No				
Lane Alignment	Left	Right	Left	Left	Left	Right				
Median Width(ft)	0			12	12					
Link Offset(ft)	0			0	0					
Crosswalk Width(ft)	16			16	16					
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)		9	15		15	9				
Number of Detectors	2		1	2	1	1				
Detector Template	Thru		Left	Thru	Left	Right				
Leading Detector (ft)	100		20	100	20	20				
Trailing Detector (ft)	0		0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0				
Detector 1 Size(ft)	6		20	6	20	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel										
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0				
Detector 2 Position(ft)	94			94						
Detector 2 Size(ft)	6			6						
Detector 2 Type	Cl+Ex			Cl+Ex						
Detector 2 Channel										
Detector 2 Extend (s)	0.0			0.0						
Turn Type	NA		D.P+P	NA	Prot	pm+ov				
Protected Phases	8		5	5 8	7	5	1	2	3	4
Permitted Phases			8			7				
Detector Phase	8		5	5 8	7	5				
Switch Phase										
Minimum Initial (s)	34.0		4.0		4.0	4.0	24.0	34.0	4.0	4.0
Minimum Split (s)	40.0		10.0		22.0	10.0	30.0	40.0	10.0	10.0

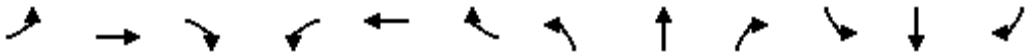


Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Total Split (s)	35.0		42.0		73.0	42.0	93.0	115.0	22.0	35.0
Total Split (%)	23.3%		28.0%		48.7%	28.0%	62%	77%	15%	23%
Maximum Green (s)	29.0		36.0		67.0	36.0	87.0	109.0	16.0	30.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0		2.0	2.0	2.0	2.0	2.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0				
Total Lost Time (s)	6.0		6.0		6.0	6.0				
Lead/Lag			Lead		Lag	Lead	Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	Yes				
Vehicle Extension (s)	4.3		2.5		3.0	2.5	4.3	4.3	2.0	2.5
Minimum Gap (s)	2.2		0.2		3.0	0.2	2.2	2.2	0.2	0.2
Time Before Reduce (s)	30.0		0.0		0.0	0.0	20.0	30.0	0.0	0.0
Time To Reduce (s)	15.0		0.0		0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	Min		None		None	None	Min	C-Min	None	None
Walk Time (s)					5.0					
Flash Dont Walk (s)					11.0					
Pedestrian Calls (#/hr)					0					
Act Effct Green (s)	31.0		51.4	57.4	80.6	107.0				
Actuated g/C Ratio	0.21		0.34	0.38	0.54	0.71				
v/c Ratio	0.58		0.77	0.36	0.21	0.16				
Control Delay	41.4		67.8	40.3	6.2	0.3				
Queue Delay	0.0		0.0	0.7	0.0	0.0				
Total Delay	41.4		67.8	41.0	6.2	0.3				
LOS	D		E	D	A	A				
Approach Delay	41.4			54.8	3.4					
Approach LOS	D			D	A					
Queue Length 50th (ft)	153		189	179	55	0				
Queue Length 95th (ft)	214		244	234	86	0				
Internal Link Dist (ft)	717			272	970					
Turn Bay Length (ft)										
Base Capacity (vph)	783		540	906	950	1179				
Starvation Cap Reductn	0		6	367	0	0				
Spillback Cap Reductn	0		0	0	0	0				
Storage Cap Reductn	0		0	0	0	0				
Reduced v/c Ratio	0.58		0.51	0.48	0.21	0.16				

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 114 (76%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 130			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.93			
Intersection Signal Delay: 35.9		Intersection LOS: D	
Intersection Capacity Utilization 67.5%		ICU Level of Service C	
Analysis Period (min) 15			

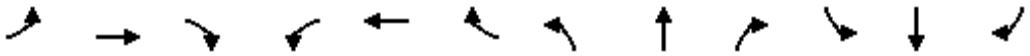
Splits and Phases: 17: Mall Drive 3 & Mall Ring Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	2515	24	201	1706	24	0	0	400	23	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		200	300		100	0		0	65		0
Storage Lanes	1		1	2		1	0		2	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.925	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1723	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1723	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			65			25			153		4	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1065			834			318			371	
Travel Time (s)		16.1			12.6			7.2			8.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	2647	25	212	1796	25	0	0	421	24	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	2647	25	212	1796	25	0	0	421	24	8	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1			1	1	1	
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45			45	45	45	
Trailing Detector (ft)	-6	284	-6	-6	284	-6			-6	-6	-6	
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			-6	-6	-6	
Detector 1 Size(ft)	51	51	51	51	51	51			51	51	51	
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA	Perm	Prot	NA	custom			Over	Perm	NA	
Protected Phases	1	7		5	4	2			5		2	
Permitted Phases			7			4				2		
Detector Phase	1	7	7	5	4	2			5	2	2	

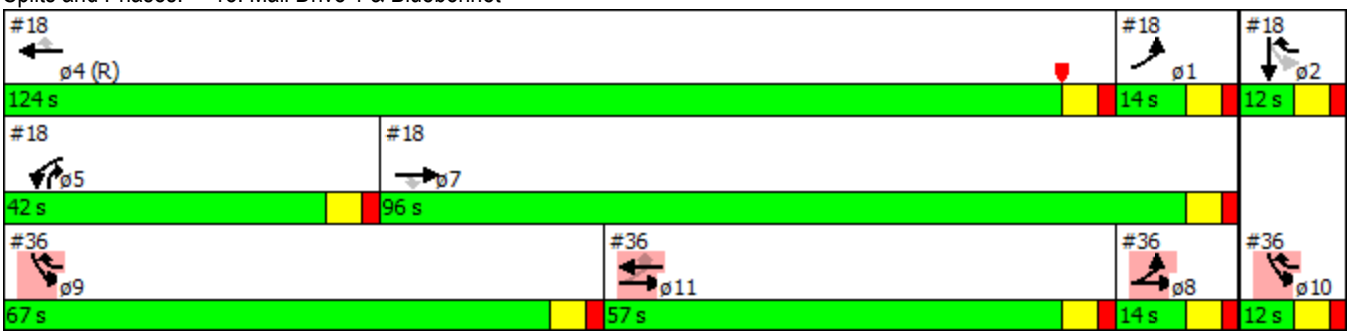
Lane Group	ø8	ø9	ø10	ø11
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	8	9	10	11
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	14.0	4.0	14.0	4.0			4.0	4.0	4.0	
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	10.0			10.0	10.0	10.0	
Total Split (s)	14.0	96.0	96.0	42.0	124.0	12.0			42.0	12.0	12.0	
Total Split (%)	9.3%	64.0%	64.0%	28.0%	82.7%	8.0%			28.0%	8.0%	8.0%	
Maximum Green (s)	8.0	90.0	90.0	36.0	118.0	6.0			36.0	6.0	6.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0			6.0	6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	4.3	4.3	2.5	4.3	2.0			2.5	2.0	2.0	
Minimum Gap (s)	0.2	2.2	2.2	0.2	2.2	0.2			0.2	0.2	0.2	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	34.0	0.0			0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	15.0	0.0			0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Min	None			None	None	None	
Act Effct Green (s)	13.6	105.3	105.3	20.7	121.6	138.4			20.7	6.0	6.0	
Actuated g/C Ratio	0.09	0.70	0.70	0.14	0.81	0.92			0.14	0.04	0.04	
v/c Ratio	0.07	0.74	0.02	0.45	0.44	0.02			0.82	0.34	0.11	
Control Delay	53.3	11.6	0.4	59.2	7.5	0.1			64.6	83.6	54.8	
Queue Delay	0.0	0.2	0.0	0.0	0.0	0.0			0.1	0.0	0.0	
Total Delay	53.3	11.8	0.4	59.2	7.5	0.1			64.7	83.6	54.8	
LOS	D	B	A	E	A	A			E	F	D	
Approach Delay		11.8			12.8						76.4	
Approach LOS		B			B						E	
Queue Length 50th (ft)	12	269	0	91	228	0			154	23	4	
Queue Length 95th (ft)	m10	645	m0	119	477	m0			207	56	23	
Internal Link Dist (ft)		985			754			238			291	
Turn Bay Length (ft)	140		200	300		100				65		
Base Capacity (vph)	183	3570	1130	823	4379	1463			785	70	72	
Starvation Cap Reductn	0	264	0	0	0	0			21	0	0	
Spillback Cap Reductn	0	0	0	0	0	0			0	0	0	
Storage Cap Reductn	0	0	0	0	0	0			0	0	0	
Reduced v/c Ratio	0.06	0.80	0.02	0.26	0.41	0.02			0.55	0.34	0.11	

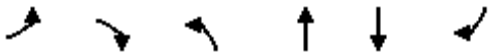
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 118 (79%), Referenced to phase 4:WBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 16.9		Intersection LOS: B	
Intersection Capacity Utilization 80.9%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 18: Mall Drive 1 & Bluebonnet



Lane Group	ø8	ø9	ø10	ø11
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	14.0
Minimum Split (s)	22.0	10.0	22.0	20.0
Total Split (s)	14.0	67.0	12.0	57.0
Total Split (%)	9%	45%	8%	38%
Maximum Green (s)	8.0	61.0	6.0	51.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	4.3
Minimum Gap (s)	3.0	3.0	3.0	2.2
Time Before Reduce (s)	0.0	0.0	0.0	34.0
Time To Reduce (s)	0.0	0.0	0.0	15.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Lane Configurations												
Volume (vph)	286	185	131	312	169	58						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Frt		0.850				0.850						
Flt Protected	0.950		0.950									
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583						
Flt Permitted	0.950		0.621									
Satd. Flow (perm)	1770	1583	1157	1863	1863	1583						
Right Turn on Red		Yes				Yes						
Satd. Flow (RTOR)		171				63						
Link Speed (mph)	30			30	30							
Link Distance (ft)	403			1050	819							
Travel Time (s)	9.2			23.9	18.6							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	311	201	142	339	184	63						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	311	201	142	339	184	63						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Right	Left	Left	Left	Right						
Median Width(ft)	36			12	0							
Link Offset(ft)	0			0	0							
Crosswalk Width(ft)	16			16	16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15	9	15			9						
Number of Detectors	1	1	1	2	2	1						
Detector Template	Left	Right	Left	Thru	Thru	Right						
Leading Detector (ft)	20	20	20	100	100	20						
Trailing Detector (ft)	0	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0	0						
Detector 1 Size(ft)	20	20	20	6	6	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)				94	94							
Detector 2 Size(ft)				6	6							
Detector 2 Type				Cl+Ex	Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)				0.0	0.0							
Turn Type	Prot	Free	D.P+P	NA	NA	pm+ov						
Protected Phases	12 13		11	11 14	14	12 13	1	2	3	5	6	8
Permitted Phases		Free	14			14						
Detector Phase	12 13		11	11 14	14	12 13						
Switch Phase												
Minimum Initial (s)			4.0		3.0		3.0	3.0	3.0	21.0	3.0	3.0
Minimum Split (s)			10.0		9.0		11.0	9.0	9.0	27.0	11.0	9.0

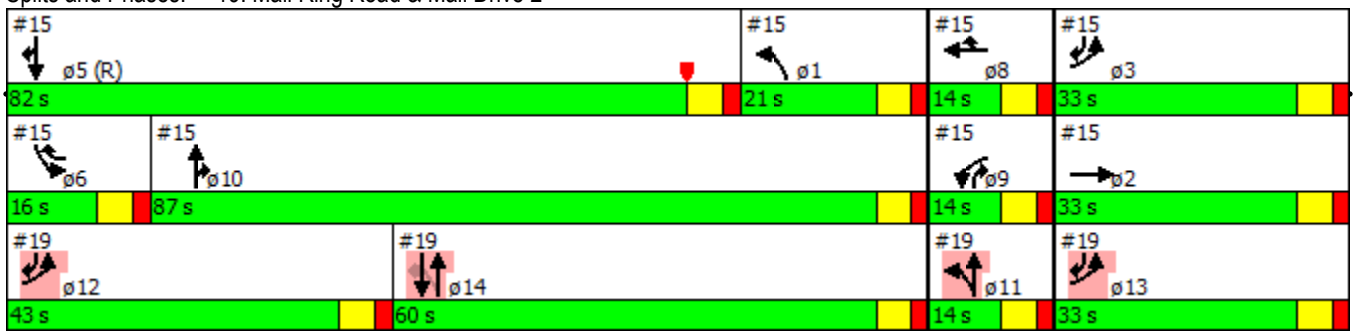
Lane Group	ø9	ø10	ø12	ø13
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	9	10	12	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	21.0	4.0	4.0
Minimum Split (s)	9.0	27.0	22.0	10.0

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Total Split (s)			14.0		60.0		21.0	33.0	33.0	82.0	16.0	14.0
Total Split (%)			9.3%		40.0%		14%	22%	22%	55%	11%	9%
Maximum Green (s)			8.0		54.0		15.0	27.0	27.0	76.0	10.0	8.0
Yellow Time (s)			4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)			2.0		2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0		0.0							
Total Lost Time (s)			6.0		6.0							
Lead/Lag					Lag		Lag			Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0		1.0		3.0	1.0	1.5	4.3	1.0	1.0
Minimum Gap (s)			3.0		0.2		0.2	0.2	0.2	2.2	0.2	0.2
Time Before Reduce (s)			0.0		0.0		0.0	0.0	0.0	28.0	0.0	0.0
Time To Reduce (s)			0.0		0.0		0.0	0.0	0.0	15.0	0.0	0.0
Recall Mode			None		None		None	None	None	C-Min	None	None
Act Effct Green (s)	48.3	150.0	83.7	89.7	76.3	130.6						
Actuated g/C Ratio	0.32	1.00	0.56	0.60	0.51	0.87						
v/c Ratio	0.55	0.13	0.21	0.30	0.19	0.05						
Control Delay	45.8	0.2	23.3	27.4	9.0	0.1						
Queue Delay	0.1	0.0	0.0	0.0	0.0	0.0						
Total Delay	45.9	0.2	23.3	27.4	9.0	0.1						
LOS	D	A	C	C	A	A						
Approach Delay	27.9			26.2	6.7							
Approach LOS	C			C	A							
Queue Length 50th (ft)	171	0	86	331	60	0						
Queue Length 95th (ft)	m123	m0	182	439	96	0						
Internal Link Dist (ft)	323			970	739							
Turn Bay Length (ft)												
Base Capacity (vph)	903	1583	683	1122	947	1386						
Starvation Cap Reductn	117	0	0	0	0	0						
Spillback Cap Reductn	0	0	0	0	0	0						
Storage Cap Reductn	0	0	0	0	0	0						
Reduced v/c Ratio	0.40	0.13	0.21	0.30	0.19	0.05						

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 90 (60%), Referenced to phase 5:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 23.0 Intersection LOS: C
Intersection Capacity Utilization 47.0% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Mall Ring Road & Mall Drive 2

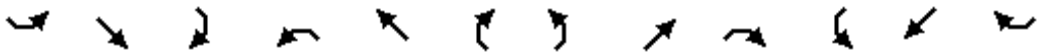


Lane Group	ø9	ø10	ø12	ø13
Total Split (s)	14.0	87.0	43.0	33.0
Total Split (%)	9%	58%	29%	22%
Maximum Green (s)	8.0	81.0	37.0	27.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?			Yes	
Vehicle Extension (s)	1.0	4.3	3.0	3.0
Minimum Gap (s)	0.2	0.2	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	203	1	670	0	0	0	0	2270	668	567	1261	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		0	0		0	400		0	300		0
Storage Lanes	1		1	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950	0.953								0.950		
Satd. Flow (prot)	1681	1686	1583	0	0	0	0	6408	1583	1770	3539	0
Flt Permitted	0.950	0.953								0.950		
Satd. Flow (perm)	1681	1686	1583	0	0	0	0	6408	1583	1770	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			469						362			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1072			1024			834			410	
Travel Time (s)		24.4			23.3			12.6			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	214	1	705	0	0	0	0	2389	703	597	1327	0
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	107	108	705	0	0	0	0	2389	703	597	1327	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			25	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					2	1	1	2	
Detector Template												
Leading Detector (ft)	45	45	45					290	45	45	290	
Trailing Detector (ft)	-6	-6	-6					284	-6	-6	284	
Detector 1 Position(ft)	-6	-6	-6					-6	-6	-6	-6	
Detector 1 Size(ft)	51	51	51					51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA	Free					NA	Perm	Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2			
Detector Phase	4	4						2	2	1	6	

Lane Group	ø5	ø8
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	5	8
Permitted Phases		
Detector Phase		

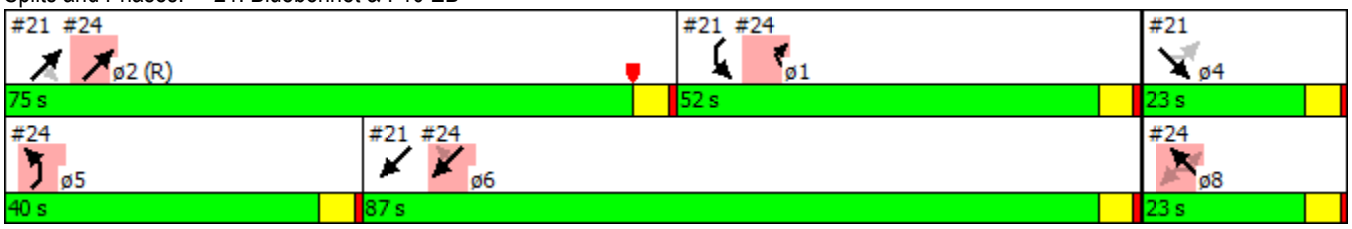


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)	3.0	3.0						10.0	10.0	3.0	10.0	
Minimum Split (s)	20.0	20.0						20.0	20.0	8.0	20.0	
Total Split (s)	23.0	23.0						75.0	75.0	52.0	87.0	
Total Split (%)	15.3%	15.3%						50.0%	50.0%	34.7%	58.0%	
Maximum Green (s)	18.0	18.0						70.0	70.0	47.0	82.0	
Yellow Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0	2.0	2.0	6.0	
Recall Mode	None	None						C-Max	C-Max	None	Max	
Act Effct Green (s)	14.6	14.6	150.0					73.4	73.4	47.0	82.0	
Actuated g/C Ratio	0.10	0.10	1.00					0.49	0.49	0.31	0.55	
v/c Ratio	0.66	0.66	0.45					0.76	0.73	1.08	0.69	
Control Delay	83.6	84.0	0.9					28.7	16.7	80.9	9.1	
Queue Delay	0.6	0.6	0.0					0.4	0.8	10.0	1.6	
Total Delay	84.2	84.5	0.9					29.1	17.5	90.9	10.7	
LOS	F	F	A					C	B	F	B	
Approach Delay		20.4						26.5			35.6	
Approach LOS		C						C			D	
Queue Length 50th (ft)	107	108	0					628	406	~666	91	
Queue Length 95th (ft)	175	177	0					690	634	m#820	148	
Internal Link Dist (ft)		992			944			754			330	
Turn Bay Length (ft)	375									300		
Base Capacity (vph)	201	202	1583					3136	959	554	1934	
Starvation Cap Reductn	0	0	0					0	77	88	401	
Spillback Cap Reductn	11	11	0					278	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.56	0.57	0.45					0.84	0.80	1.28	0.87	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:NET, Start of Yellow
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.08
Intersection Signal Delay: 28.5 Intersection LOS: C
Intersection Capacity Utilization 90.9% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: Bluebonnet & I-10 EB

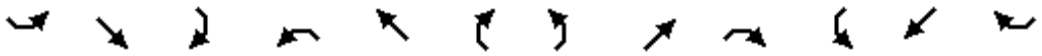


Lane Group	ø5	ø8
Switch Phase		
Minimum Initial (s)	3.0	3.0
Minimum Split (s)	8.0	20.0
Total Split (s)	40.0	23.0
Total Split (%)	27%	15%
Maximum Green (s)	35.0	18.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?		
Vehicle Extension (s)	3.5	2.0
Recall Mode	Max	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	0	0	218	10	365	871	1602	0	0	1610	297
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		525	300		0	0		575
Storage Lanes	0		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt						0.850						0.850
Flt Protected				0.950	0.957		0.950					
Satd. Flow (prot)	0	0	0	1681	1694	1583	3433	3539	0	0	3539	1583
Flt Permitted				0.950	0.957		0.950					
Satd. Flow (perm)	0	0	0	1681	1694	1583	3433	3539	0	0	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						51						313
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		894			1008			410			866	
Travel Time (s)		20.3			22.9			6.2			13.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	229	11	384	917	1686	0	0	1695	313
Shared Lane Traffic (%)				48%								
Lane Group Flow (vph)	0	0	0	119	121	384	917	1686	0	0	1695	313
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			40			50	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			2	1
Detector Template												
Leading Detector (ft)				45	45	45	45	290			290	45
Trailing Detector (ft)				-6	-6	-6	-6	284			284	-6
Detector 1 Position(ft)				-6	-6	-6	-6	-6			-6	-6
Detector 1 Size(ft)				51	51	51	51	51			51	51
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call			Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type				Perm	NA	custom	Prot	NA			NA	Perm
Protected Phases					8	1	5	2			6	
Permitted Phases				8		8						6
Detector Phase				8	8	1	5	2			6	6

Lane Group	ø4
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)				3.0	3.0	3.0	3.0	10.0			10.0	10.0
Minimum Split (s)				20.0	20.0	8.0	8.0	20.0			20.0	20.0
Total Split (s)				23.0	23.0	52.0	40.0	75.0			87.0	87.0
Total Split (%)				15.3%	15.3%	34.7%	26.7%	50.0%			58.0%	58.0%
Maximum Green (s)				18.0	18.0	47.0	35.0	70.0			82.0	82.0
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
All-Red Time (s)				1.0	1.0	1.0	1.0	1.0			1.0	1.0
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)				5.0	5.0	5.0	5.0	5.0			5.0	5.0
Lead/Lag						Lag	Lead	Lead			Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0	2.0	3.5	2.0			6.0	6.0
Recall Mode				None	None	None	Max	C-Max			Max	Max
Act Effct Green (s)				14.6	14.6	66.6	38.4	73.4			82.0	82.0
Actuated g/C Ratio				0.10	0.10	0.44	0.26	0.49			0.55	0.55
v/c Ratio				0.73	0.74	0.53	1.04	0.97			0.88	0.31
Control Delay				90.1	90.8	28.4	81.3	19.2			45.5	6.1
Queue Delay				0.0	0.0	0.0	22.1	33.1			46.7	0.0
Total Delay				90.1	90.8	28.4	103.4	52.3			92.2	6.1
LOS				F	F	C	F	D			F	A
Approach Delay					52.3			70.3			78.8	
Approach LOS					D			E			E	
Queue Length 50th (ft)				121	122	232	~488	914			920	43
Queue Length 95th (ft)				192	195	322	#660	#1042			995	m105
Internal Link Dist (ft)		814			928			330			786	
Turn Bay Length (ft)						525	300					575
Base Capacity (vph)				201	203	730	879	1732			1934	1007
Starvation Cap Reductn				0	0	0	73	0			430	0
Spillback Cap Reductn				0	0	2	0	171			207	0
Storage Cap Reductn				0	0	0	0	0			0	0
Reduced v/c Ratio				0.59	0.60	0.53	1.14	1.08			1.13	0.31

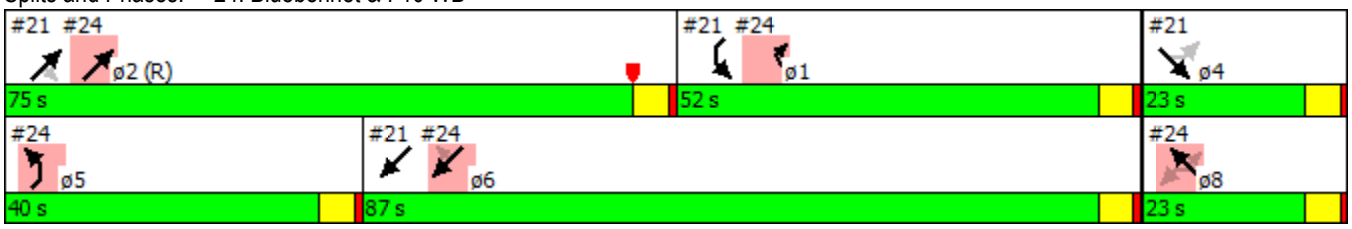
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 0 (0%), Referenced to phase 2:NET, Start of Yellow			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.08			
Intersection Signal Delay: 71.4		Intersection LOS: E	
Intersection Capacity Utilization 90.9%		ICU Level of Service E	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

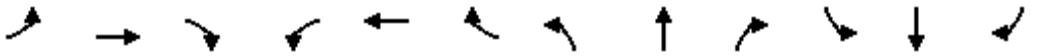
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 24: Bluebonnet & I-10 WB

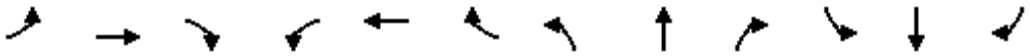


Lane Group	ø4
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	20.0
Total Split (s)	23.0
Total Split (%)	15%
Maximum Green (s)	18.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	97	16	96	552	83	190	43	1736	188	39	1259	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		200	300		175	175		175
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.872			0.936	0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3086	0	3433	1656	1504	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.099			0.053		
Satd. Flow (perm)	1770	3086	0	3433	1656	1504	184	3539	1583	99	3539	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		101										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		475			1072			866			1049	
Travel Time (s)		10.8			24.4			13.1			15.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	102	17	101	581	87	200	45	1827	198	41	1325	14
Shared Lane Traffic (%)						32%						
Lane Group Flow (vph)	102	118	0	581	151	136	45	1827	198	41	1325	14
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		60			60			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4		3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases							2			6		
Detector Phase	7	4		3	8	8 1	5	2	2 3	1	6	6 7

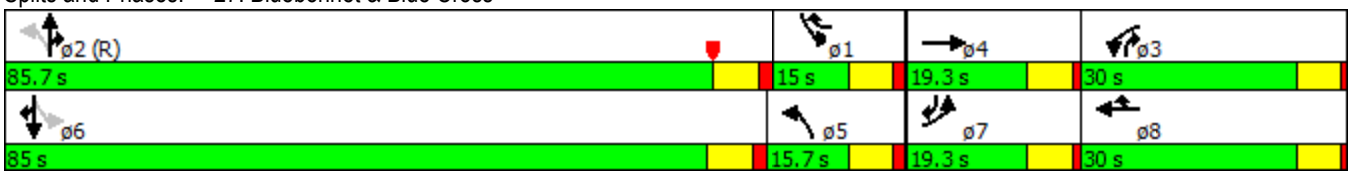


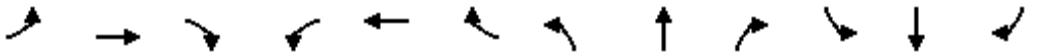
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	5.0		5.0	3.0		3.0	20.0		5.0	20.0	
Minimum Split (s)	8.9	10.9		10.9	8.9		9.6	26.6		11.6	26.6	
Total Split (s)	19.3	19.3		30.0	30.0		15.7	85.7		15.0	85.0	
Total Split (%)	12.9%	12.9%		20.0%	20.0%		10.5%	57.1%		10.0%	56.7%	
Maximum Green (s)	13.4	13.4		24.1	24.1		9.1	79.1		8.4	78.4	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	0.9	0.9		0.9	0.9		1.6	1.6		1.6	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.9	5.9		5.9	5.9		6.6	6.6		6.6	6.6	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		2.5	1.5		1.5	5.0		1.5	5.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	11.6	6.0		31.6	25.9	35.0	89.5	79.1	116.6	83.5	76.8	89.0
Actuated g/C Ratio	0.08	0.04		0.21	0.17	0.23	0.60	0.53	0.78	0.56	0.51	0.59
v/c Ratio	0.74	0.54		0.80	0.53	0.39	0.18	0.98	0.16	0.28	0.73	0.01
Control Delay	98.1	26.4		65.8	64.7	39.6	5.3	26.5	2.7	28.2	28.6	6.1
Queue Delay	0.0	0.1		0.0	0.0	0.0	0.0	17.7	0.0	0.0	49.0	0.0
Total Delay	98.1	26.5		65.8	64.7	39.6	5.3	44.3	2.7	28.2	77.5	6.1
LOS	F	C		E	E	D	A	D	A	C	E	A
Approach Delay		59.7			61.5			39.4			75.3	
Approach LOS		E			E			D			E	
Queue Length 50th (ft)	99	8		279	145	93	5	689	25	14	578	2
Queue Length 95th (ft)	#174	42		#381	228	150	m7	m#1046	m27	28	380	m6
Internal Link Dist (ft)		395			992			786			969	
Turn Bay Length (ft)	75			200		200	300		175	175		175
Base Capacity (vph)	158	367		722	286	351	255	1866	1230	148	1922	1008
Starvation Cap Reductn	0	0		0	0	0	0	115	0	0	0	0
Spillback Cap Reductn	0	11		0	0	0	0	0	0	0	746	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.33		0.80	0.53	0.39	0.18	1.04	0.16	0.28	1.13	0.01

Intersection Summary

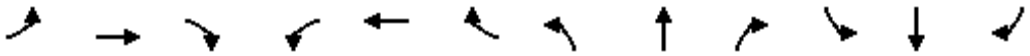
Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 16.7 (11%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 55.6 Intersection LOS: E
Intersection Capacity Utilization 83.2% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 27: Bluebonnet & Blue Cross





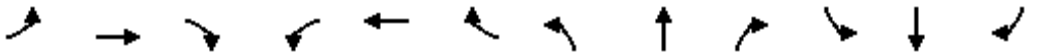
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	1	16	36	0	4	31	1914	15	2	1326	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		130	150		185
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.921			0.987				0.850			0.850
Flt Protected		0.981			0.957		0.950			0.950		
Satd. Flow (prot)	0	1683	0	0	1759	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.894			0.725		0.182			0.086		
Satd. Flow (perm)	0	1534	0	0	1333	0	339	3539	1583	160	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			22				22			22
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1129			1330			1049			1811	
Travel Time (s)		25.7			30.2			15.9			27.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	1	17	38	0	4	33	2015	16	2	1396	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	29	0	0	42	0	33	2015	16	2	1396	8
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



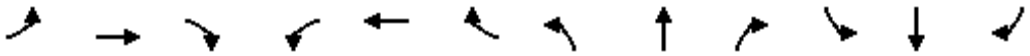
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	11.0	11.0		11.0	11.0		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	25.0	25.0		25.0	25.0		125.0	125.0	125.0	125.0	125.0	125.0
Total Split (%)	16.7%	16.7%		16.7%	16.7%		83.3%	83.3%	83.3%	83.3%	83.3%	83.3%
Maximum Green (s)	19.0	19.0		19.0	19.0		119.0	119.0	119.0	119.0	119.0	119.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		7.9			7.9		133.6	133.6	133.6	133.6	133.6	133.6
Actuated g/C Ratio		0.05			0.05		0.89	0.89	0.89	0.89	0.89	0.89
v/c Ratio		0.30			0.47		0.11	0.64	0.01	0.01	0.44	0.01
Control Delay		45.0			55.0		1.2	2.0	0.1	2.0	2.1	0.1
Queue Delay		0.0			0.0		0.0	0.2	0.0	0.0	0.0	0.0
Total Delay		45.0			55.0		1.2	2.1	0.1	2.0	2.1	0.1
LOS		D			E		A	A	A	A	A	A
Approach Delay		45.0			55.0			2.1			2.1	
Approach LOS		D			E			A			A	
Queue Length 50th (ft)		11			19		2	85	0	0	101	0
Queue Length 95th (ft)		45			61		m2	m73	m0	m1	108	m0
Internal Link Dist (ft)		1049			1250			969			1731	
Turn Bay Length (ft)							150		130	150		185
Base Capacity (vph)		209			188		301	3151	1412	142	3151	1412
Starvation Cap Reductn		0			0		0	306	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.14			0.22		0.11	0.71	0.01	0.01	0.44	0.01

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 72 (48%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 3.1		Intersection LOS: A	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 30: Bluebonnet & Gail



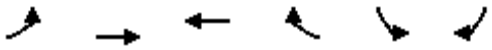
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	9	79	21	4	5	169	1634	86	11	1218	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.889			0.978				0.850			0.850
Flt Protected		0.996			0.966		0.950			0.950		
Satd. Flow (prot)	0	1649	0	0	1760	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.964			0.407		0.206			0.123		
Satd. Flow (perm)	0	1596	0	0	741	0	384	3539	1583	229	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		83			5				65			32
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1794			2049			1811			2409	
Travel Time (s)		40.8			46.6			27.4			36.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	9	9	83	22	4	5	178	1720	91	12	1282	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	101	0	0	31	0	178	1720	91	12	1282	34
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	9.2	9.2		9.2	9.2		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	33.2	33.2		33.2	33.2		116.8	116.8	116.8	116.8	116.8	116.8
Total Split (%)	22.1%	22.1%		22.1%	22.1%		77.9%	77.9%	77.9%	77.9%	77.9%	77.9%
Maximum Green (s)	27.0	27.0		27.0	27.0		110.8	110.8	110.8	110.8	110.8	110.8
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.2	1.2		1.2	1.2		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.2			6.2		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		8.4			8.4		129.4	129.4	129.4	129.4	129.4	129.4
Actuated g/C Ratio		0.06			0.06		0.86	0.86	0.86	0.86	0.86	0.86
v/c Ratio		0.60			0.67		0.54	0.56	0.07	0.06	0.42	0.02
Control Delay		34.2			119.7		9.3	5.5	0.8	2.5	2.8	0.7
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		34.2			119.7		9.3	5.5	0.8	2.5	2.8	0.7
LOS		C			F		A	A	A	A	A	A
Approach Delay		34.2			119.7			5.6			2.8	
Approach LOS		C			F			A			A	
Queue Length 50th (ft)		17			26		71	360	9	1	102	0
Queue Length 95th (ft)		78			63		29	64	m1	6	165	6
Internal Link Dist (ft)		1714			1969			1731			2329	
Turn Bay Length (ft)							150		150	150		150
Base Capacity (vph)		355			137		331	3054	1374	197	3054	1370
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.28			0.23		0.54	0.56	0.07	0.06	0.42	0.02

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 63 (42%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 6.4		Intersection LOS: A	
Intersection Capacity Utilization 93.0%		ICU Level of Service F	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 33: Bluebonnet & Oliphant



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Lane Configurations												
Volume (vph)	143	455	136	257	138	91						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.95						
Frt				0.850	0.940							
Flt Protected	0.950				0.971							
Satd. Flow (prot)	1770	1863	1863	1583	3298	0						
Flt Permitted	0.598				0.971							
Satd. Flow (perm)	1114	1863	1863	1583	3298	0						
Right Turn on Red				Yes		Yes						
Satd. Flow (RTOR)				279	99							
Link Speed (mph)		30	30		30							
Link Distance (ft)		819	802		318							
Travel Time (s)		18.6	18.2		7.2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	155	495	148	279	150	99						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	155	495	148	279	249	0						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Right	Left	Right						
Median Width(ft)		12	0		36							
Link Offset(ft)		0	0		0							
Crosswalk Width(ft)		16	16		16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15			9	15	9						
Number of Detectors	1	2	2	1	1							
Detector Template	Left	Thru	Thru	Right	Left							
Leading Detector (ft)	20	100	100	20	20							
Trailing Detector (ft)	0	0	0	0	0							
Detector 1 Position(ft)	0	0	0	0	0							
Detector 1 Size(ft)	20	6	6	20	20							
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex							
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0							
Detector 2 Position(ft)		94	94									
Detector 2 Size(ft)		6	6									
Detector 2 Type		Cl+Ex	Cl+Ex									
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0									
Turn Type	D.P+P	NA	NA	pm+ov	Prot							
Protected Phases	8	8 11	11	9 10	9 10		1	2	4	5	7	9
Permitted Phases	11			11								
Detector Phase	8	8 11	11	9 10	9 10							
Switch Phase												
Minimum Initial (s)	4.0		14.0				4.0	4.0	14.0	4.0	14.0	4.0
Minimum Split (s)	22.0		20.0				10.0	10.0	20.0	10.0	20.0	10.0

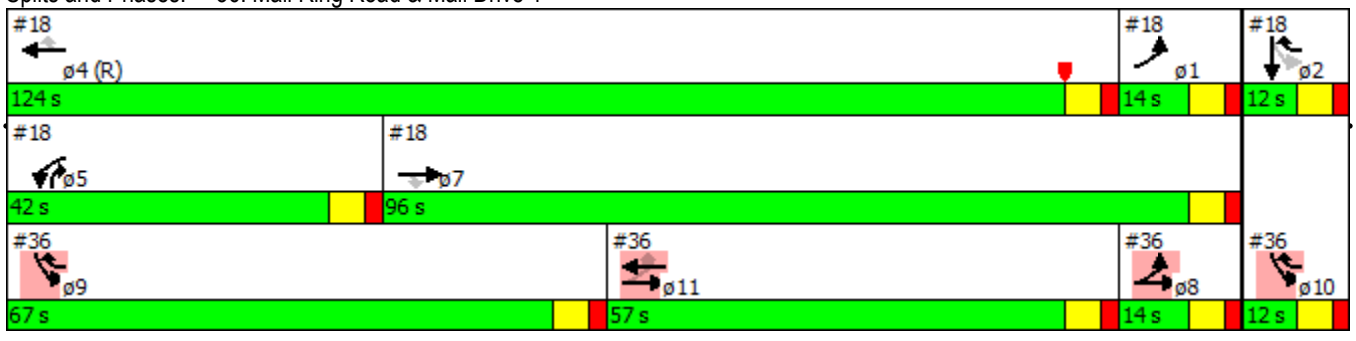
Lane Group	ø10
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	10
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	22.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Total Split (s)	14.0		57.0				14.0	12.0	124.0	42.0	96.0	67.0
Total Split (%)	9.3%		38.0%				9%	8%	83%	28%	64%	45%
Maximum Green (s)	8.0		51.0				8.0	6.0	118.0	36.0	90.0	61.0
Yellow Time (s)	4.0		4.0				4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0				2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0									
Total Lost Time (s)	6.0		6.0									
Lead/Lag			Lag				Lag		Lead	Lead	Lag	Lead
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0		4.3				2.5	2.0	4.3	2.5	4.3	3.0
Minimum Gap (s)	3.0		2.2				0.2	0.2	2.2	0.2	2.2	3.0
Time Before Reduce (s)	0.0		34.0				0.0	0.0	34.0	0.0	0.0	0.0
Time To Reduce (s)	0.0		15.0				0.0	0.0	15.0	0.0	0.0	0.0
Recall Mode	None		None				None	None	C-Min	None	None	None
Act Effct Green (s)	112.4	118.4	39.7	65.3	19.6							
Actuated g/C Ratio	0.75	0.79	0.26	0.44	0.13							
v/c Ratio	0.13	0.34	0.30	0.33	0.48							
Control Delay	5.5	7.6	44.1	3.1	83.3							
Queue Delay	0.0	0.0	0.0	0.0	0.0							
Total Delay	5.5	7.6	44.1	3.1	83.3							
LOS	A	A	D	A	F							
Approach Delay		7.1	17.3		83.3							
Approach LOS		A	B		F							
Queue Length 50th (ft)	46	238	116	0	110							
Queue Length 95th (ft)	56	215	164	44	92							
Internal Link Dist (ft)		739	722		238							
Turn Bay Length (ft)												
Base Capacity (vph)	1152	1457	633	926	1655							
Starvation Cap Reductn	0	0	0	0	0							
Spillback Cap Reductn	0	0	0	0	0							
Storage Cap Reductn	0	0	0	0	0							
Reduced v/c Ratio	0.13	0.34	0.23	0.30	0.15							

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 118 (79%), Referenced to phase 4:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 24.7 Intersection LOS: C
Intersection Capacity Utilization 41.4% ICU Level of Service A
Analysis Period (min) 15

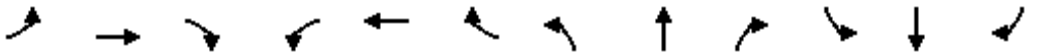
Splits and Phases: 36: Mall Ring Road & Mall Drive 1



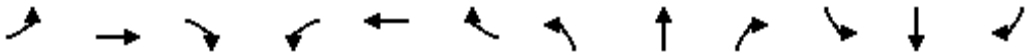
Lane Group	ø10
Total Split (s)	12.0
Total Split (%)	8%
Maximum Green (s)	6.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Minimum Gap (s)	3.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

M.7 2015 EXISTING WEEKEND – BLUEBONNET BOULEVARD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	260	597	205	269	664	352	192	782	126	337	873	202
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		250	325		375	350		0	250		150
Storage Lanes	2		1	2		1	2		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Frt			0.850			0.850		0.979				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3465	0	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3465	0	3433	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								13				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		2445			3864			2201			709	
Travel Time (s)		37.0			58.5			33.3			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	274	628	216	283	699	371	202	823	133	355	919	213
Shared Lane Traffic (%)												
Lane Group Flow (vph)	274	628	216	283	699	371	202	956	0	355	919	213
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45	45	290		45	290	45
Trailing Detector (ft)	-6	284	-6	-6	284	-6	-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6	-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51	51	51		51	51	51
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		284			284			284			284	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Extend			Extend			Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8		7	4	4 5
Permitted Phases												
Detector Phase	5	2	2 3	1	6	6 7	3	8		7	4	4 5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	10.0		4.0	10.0	
Minimum Split (s)	11.0	34.5		11.0	37.5		11.0	41.0		11.0	41.0	
Total Split (s)	26.0	37.0		26.0	37.0		33.0	60.0		27.0	54.0	
Total Split (%)	17.3%	24.7%		17.3%	24.7%		22.0%	40.0%		18.0%	36.0%	
Maximum Green (s)	19.0	30.5		19.0	30.5		26.0	53.0		20.0	47.0	
Yellow Time (s)	5.0	4.5		5.0	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	6.5		7.0	6.5		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.3		3.0	4.3		3.0	3.9		3.0	3.9	
Minimum Gap (s)	0.2	2.2		0.2	2.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	15.0		0.0	15.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0		0.0	10.0		0.0	10.0	
Recall Mode	None	Min		None	Min		None	Min		None	C-Min	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		23.0			26.0			29.0			29.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	16.8	32.8	55.5	17.1	33.1	59.3	22.2	53.4		19.2	50.4	67.2
Actuated g/C Ratio	0.11	0.22	0.37	0.11	0.22	0.40	0.15	0.36		0.13	0.34	0.45
v/c Ratio	0.71	0.81	0.37	0.72	0.90	0.59	0.40	0.77		0.81	0.77	0.30
Control Delay	74.8	64.8	21.0	75.0	71.5	40.3	60.1	48.1		83.1	38.7	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0		0.0	0.0	0.0
Total Delay	74.8	64.8	21.0	75.0	71.5	42.1	60.1	48.1		83.1	38.7	10.0
LOS	E	E	C	E	E	D	E	D		F	D	A
Approach Delay		58.8			64.2			50.2			45.2	
Approach LOS		E			E			D			D	
Queue Length 50th (ft)	135	303	95	139	344	267	93	458		144	361	49
Queue Length 95th (ft)	182	#413	141	189	#492	406	131	521		219	424	111
Internal Link Dist (ft)		2365			3784			2121			629	
Turn Bay Length (ft)	440		250	325		375	350			250		150
Base Capacity (vph)	437	780	628	438	785	626	595	1291		465	1190	734
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	126	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.63	0.81	0.34	0.65	0.89	0.74	0.34	0.74		0.76	0.77	0.29

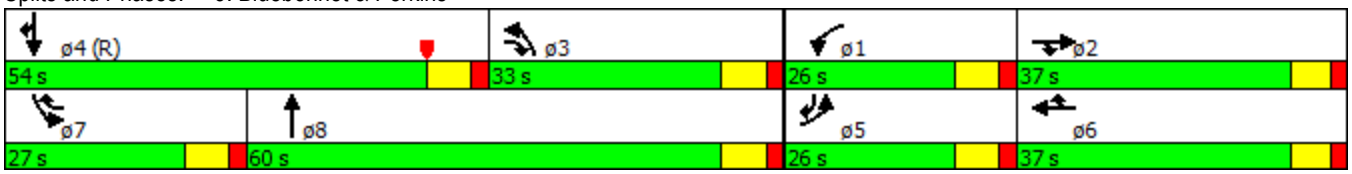
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 0 (0%), Referenced to phase 4:SBT, Start of Yellow			
Natural Cycle: 105			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 54.3		Intersection LOS: D	
Intersection Capacity Utilization 83.9%		ICU Level of Service E	

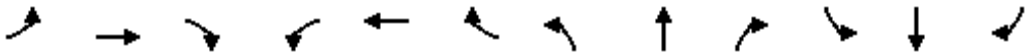
Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.

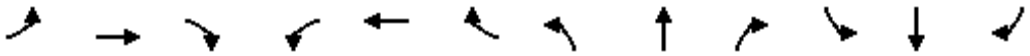
Queue shown is maximum after two cycles.

Splits and Phases: 3: Bluebonnet & Perkins





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	137	23	46	46	12	149	35	1409	41	302	1280	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		125	160		160	175		0
Storage Lanes	1		0	0		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.900				0.850			0.850		0.991	
Flt Protected	0.950				0.962		0.950			0.950		
Satd. Flow (prot)	1770	1676	0	0	1792	1583	1770	3539	1583	3433	3507	0
Flt Permitted	0.717				0.663		0.950			0.950		
Satd. Flow (perm)	1336	1676	0	0	1235	1583	1770	3539	1583	3433	3507	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		48									8	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		511			1048			709			2556	
Travel Time (s)		11.6			23.8			10.7			38.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	144	24	48	48	13	157	37	1483	43	318	1347	83
Shared Lane Traffic (%)												
Lane Group Flow (vph)	144	72	0	0	61	157	37	1483	43	318	1430	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290	45	45	290	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284	-6	-6	284	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6	-6	-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	
Protected Phases		8		7	4	4 5	1	6	6 7	5	2	
Permitted Phases	8			4								
Detector Phase	8	8		7	4	4 5	1	6	6 7	5	2	



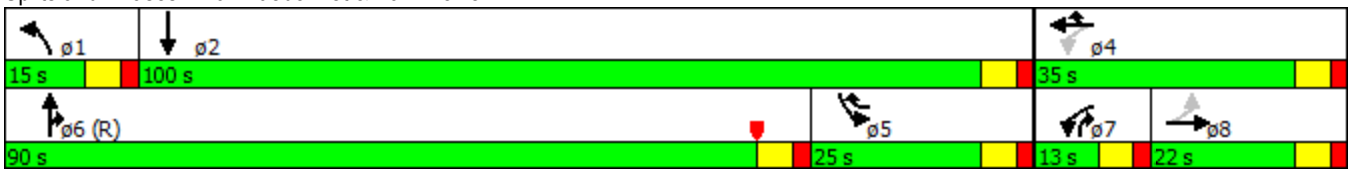
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		3.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	11.0	11.0		9.0	11.0		9.0	21.0		9.0	21.0	
Total Split (s)	22.0	22.0		13.0	35.0		15.0	90.0		25.0	100.0	
Total Split (%)	14.7%	14.7%		8.7%	23.3%		10.0%	60.0%		16.7%	66.7%	
Maximum Green (s)	16.0	16.0		7.0	29.0		9.0	84.0		19.0	94.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		1.5	2.0		1.5	4.0		1.5	4.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	22.5	22.5			31.4	54.7	6.9	83.3	88.2	17.3	95.7	
Actuated g/C Ratio	0.15	0.15			0.21	0.36	0.05	0.56	0.59	0.12	0.64	
v/c Ratio	0.72	0.25			0.22	0.27	0.46	0.76	0.05	0.81	0.64	
Control Delay	80.2	25.8			49.9	34.1	79.5	37.0	10.0	80.5	19.5	
Queue Delay	0.0	0.0			0.0	0.0	0.0	1.0	0.0	0.0	0.0	
Total Delay	80.2	25.8			49.9	34.1	79.5	38.0	10.0	80.5	19.5	
LOS	F	C			D	C	E	D	A	F	B	
Approach Delay		62.1			38.5			38.2			30.6	
Approach LOS		E			D			D			C	
Queue Length 50th (ft)	134	20			48	102	36	681	15	158	480	
Queue Length 95th (ft)	#285	72			95	169	m54	588	m16	210	512	
Internal Link Dist (ft)		431			968			629			2476	
Turn Bay Length (ft)	100					125	160		160	175		
Base Capacity (vph)	200	292			286	576	106	2044	988	441	2305	
Starvation Cap Reductn	0	0			0	0	0	298	0	0	0	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.72	0.25			0.21	0.27	0.35	0.85	0.04	0.72	0.62	

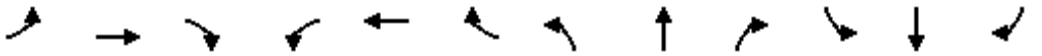
Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 20 (13%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 36.0 Intersection LOS: D
Intersection Capacity Utilization 76.8% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

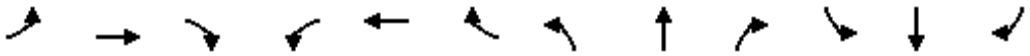
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Bluebonnet & Park Rowe





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	197	1	76	0	0	2	36	1550	0	1	1628	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	475		475	50		0	425		0	130		130
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.850							0.850
Flt Protected	0.950	0.953					0.950			0.950		
Satd. Flow (prot)	1681	1686	1583	1863	1583	0	1770	3539	0	1770	3539	1583
Flt Permitted	0.950	0.953					0.950			0.950		
Satd. Flow (perm)	1681	1686	1583	1863	1583	0	1770	3539	0	1770	3539	1583
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)					144							
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1004			740			2556			469	
Travel Time (s)		22.8			16.8			38.7			7.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	207	1	80	0	0	2	38	1632	0	1	1714	125
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	103	105	80	0	2	0	38	1632	0	1	1714	125
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	45	45	45		45	290		45	290	45
Trailing Detector (ft)	-6	-6	-6	-6	-6		-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6		-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51		51	51		51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA		Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4		1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4		1	6		5	2	2 8



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.5	25.5		8.5	25.5	
Total Split (s)	22.0	22.0		19.5	19.5		13.5	65.0		13.5	65.0	
Total Split (%)	18.3%	18.3%		16.3%	16.3%		11.3%	54.2%		11.3%	54.2%	
Maximum Green (s)	17.0	17.0		14.5	14.5		8.0	59.5		8.0	59.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	6.0		3.0	6.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	15.7	15.7	29.1		7.7		7.9	89.0		5.7	80.1	100.8
Actuated g/C Ratio	0.13	0.13	0.24		0.06		0.07	0.74		0.05	0.67	0.84
v/c Ratio	0.47	0.48	0.21		0.01		0.33	0.62		0.01	0.73	0.09
Control Delay	54.2	54.5	35.7		0.0		60.5	11.7		52.0	13.8	2.1
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	54.2	54.5	35.7		0.0		60.5	11.7		52.0	13.8	2.1
LOS	D	D	D		A		E	B		D	B	A
Approach Delay		49.2			0.0			12.8			13.0	
Approach LOS		D			A			B			B	
Queue Length 50th (ft)	78	80	50		0		29	224		1	160	10
Queue Length 95th (ft)	130	132	85		0		65	681		m2	#831	24
Internal Link Dist (ft)		924			660			2476			389	
Turn Bay Length (ft)	475		475				425			130		130
Base Capacity (vph)	255	255	380		317		126	2623		118	2362	1344
Starvation Cap Reductn	0	0	0		0		0	0		0	0	0
Spillback Cap Reductn	0	0	0		0		0	0		0	0	0
Storage Cap Reductn	0	0	0		0		0	0		0	0	0
Reduced v/c Ratio	0.40	0.41	0.21		0.01		0.30	0.62		0.01	0.73	0.09

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 88 (73%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 15.7		Intersection LOS: B	
Intersection Capacity Utilization 65.9%		ICU Level of Service C	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Bluebonnet & Anselmo

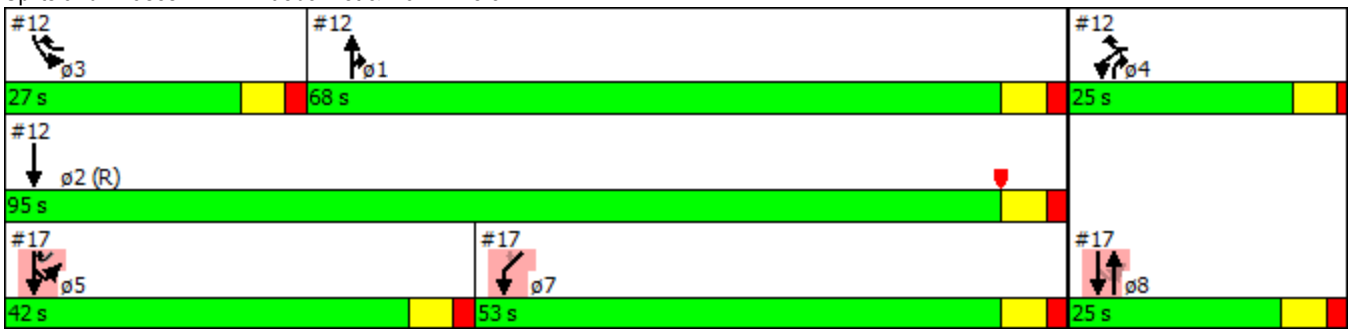
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Lane Configurations									
Volume (vph)	376	123	1258	491	65	1372			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	0	100		150	350				
Storage Lanes	2	1		1	1				
Taper Length (ft)	25				25				
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.91			
Frt		0.850		0.850					
Flt Protected	0.950				0.950				
Satd. Flow (prot)	3433	1583	3539	1583	1770	5085			
Flt Permitted	0.950				0.950				
Satd. Flow (perm)	3433	1583	3539	1583	1770	5085			
Right Turn on Red		No		No					
Satd. Flow (RTOR)									
Link Speed (mph)	30		45			45			
Link Distance (ft)	352		390			974			
Travel Time (s)	8.0		5.9			14.8			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95			
Adj. Flow (vph)	396	129	1324	517	68	1444			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	396	129	1324	517	68	1444			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Right	Left	Left			
Median Width(ft)	35		20			20			
Link Offset(ft)	0		0			0			
Crosswalk Width(ft)	16		16			16			
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Turning Speed (mph)	15	9		9	15				
Number of Detectors	1	1	2	1	1	2			
Detector Template									
Leading Detector (ft)	45	45	290	45	45	290			
Trailing Detector (ft)	-6	-6	284	-6	-6	284			
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			
Detector 1 Size(ft)	51	51	51	51	51	51			
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call			
Detector 1 Channel									
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)			284			284			
Detector 2 Size(ft)			6			6			
Detector 2 Type			Extend			Extend			
Detector 2 Channel									
Detector 2 Extend (s)			0.0			0.0			
Turn Type	Prot	pt+ov	NA	pt+ov	Prot	NA			
Protected Phases	4	4 3	1	1 4	3	2	5	7	8
Permitted Phases									
Detector Phase	4	4 3	1	1 4	3	2			

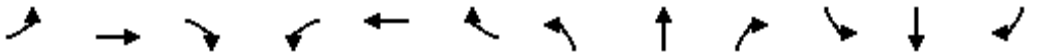
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Switch Phase									
Minimum Initial (s)	4.0		24.0		4.0	34.0	4.0	4.0	34.0
Minimum Split (s)	10.0		30.0		10.0	40.0	10.0	22.0	40.0
Total Split (s)	25.0		68.0		27.0	95.0	42.0	53.0	25.0
Total Split (%)	20.8%		56.7%		22.5%	79.2%	35%	44%	21%
Maximum Green (s)	20.0		62.0		21.0	89.0	36.0	47.0	19.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0			
Total Lost Time (s)	5.0		6.0		6.0	6.0			
Lead/Lag			Lag		Lead		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	
Vehicle Extension (s)	2.5		4.3		2.0	4.3	2.5	3.0	4.3
Minimum Gap (s)	0.2		2.2		0.2	2.2	0.2	3.0	2.2
Time Before Reduce (s)	0.0		20.0		0.0	30.0	0.0	0.0	30.0
Time To Reduce (s)	0.0		15.0		0.0	15.0	0.0	0.0	15.0
Recall Mode	None		Min		None	C-Min	None	None	Min
Walk Time (s)								5.0	
Flash Dont Walk (s)								11.0	
Pedestrian Calls (#/hr)								0	
Act Effct Green (s)	32.8	48.0	61.0	98.8	9.2	76.2			
Actuated g/C Ratio	0.27	0.40	0.51	0.82	0.08	0.64			
v/c Ratio	0.42	0.20	0.74	0.40	0.50	0.45			
Control Delay	20.3	11.6	21.7	4.3	82.9	2.3			
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay	20.3	11.6	21.7	4.3	82.9	2.3			
LOS	C	B	C	A	F	A			
Approach Delay	18.2		16.8			5.9			
Approach LOS	B		B			A			
Queue Length 50th (ft)	89	50	453	166	57	30			
Queue Length 95th (ft)	123	67	151	33	103	30			
Internal Link Dist (ft)	272		310			894			
Turn Bay Length (ft)		100		150	350				
Base Capacity (vph)	938	788	1835	1271	309	3771			
Starvation Cap Reductn	0	0	0	0	0	0			
Spillback Cap Reductn	0	0	0	29	0	0			
Storage Cap Reductn	0	0	0	0	0	0			
Reduced v/c Ratio	0.42	0.16	0.72	0.42	0.22	0.38			

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 100 (83%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 12.8		Intersection LOS: B	
Intersection Capacity Utilization 63.3%		ICU Level of Service B	

Analysis Period (min) 15

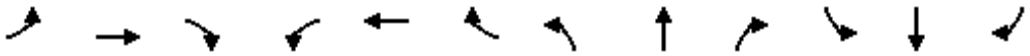
Splits and Phases: 12: Bluebonnet & Mall Drive 3





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	138	66	68	86	62	215	63	1235	83	321	1283	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	140		140	200		200	200		160
Storage Lanes	2		0	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		0.923				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3267	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3267	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		72										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1050			403			974			1065	
Travel Time (s)		23.9			9.2			14.8			16.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	145	69	72	91	65	226	66	1300	87	338	1351	126
Shared Lane Traffic (%)												
Lane Group Flow (vph)	145	141	0	91	65	226	66	1300	87	338	1351	126
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			36			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pt+ov
Protected Phases	3	2		9	8	8 6	1	10	10 9	6	5	5 3
Permitted Phases												
Detector Phase	3	2		9	8	8 6	1	10	10 9	6	5	5 3

Lane Group	ø11	ø12	ø13	ø14
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	11	12	13	14
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	21.0		3.0	21.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		11.0	27.0		11.0	27.0	
Total Split (s)	20.0	20.0		20.0	20.0		19.0	59.0		21.0	61.0	
Total Split (%)	16.7%	16.7%		16.7%	16.7%		15.8%	49.2%		17.5%	50.8%	
Maximum Green (s)	14.0	14.0		14.0	14.0		13.0	53.0		15.0	55.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.0		1.0	1.0		3.0	4.3		1.0	4.3	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	28.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	15.0	
Recall Mode	None	None		None	None		None	None		None	C-Min	
Act Effct Green (s)	17.0	17.0		12.4	12.4	37.2	17.3	41.8	60.2	24.8	51.8	74.8
Actuated g/C Ratio	0.14	0.14		0.10	0.10	0.31	0.14	0.35	0.50	0.21	0.43	0.62
v/c Ratio	0.30	0.27		0.26	0.18	0.46	0.26	0.73	0.11	0.48	0.62	0.13
Control Delay	47.8	24.4		32.2	31.4	39.9	28.2	18.2	3.9	56.7	8.8	4.0
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.8	24.4		32.2	31.4	39.9	28.2	18.2	3.9	56.7	8.8	4.0
LOS	D	C		C	C	D	C	B	A	E	A	A
Approach Delay		36.2			36.6			17.8			17.4	
Approach LOS		D			D			B			B	
Queue Length 50th (ft)	50	23		38	27	172	33	161	6	94	106	18
Queue Length 95th (ft)	87	57		57	44	257	m58	151	m6	#190	24	9
Internal Link Dist (ft)		970			323			894			985	
Turn Bay Length (ft)	150			140		140	200		200	200		160
Base Capacity (vph)	496	533		422	435	522	275	2245	816	710	2564	1090
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.26		0.22	0.15	0.43	0.24	0.58	0.11	0.48	0.53	0.12

Intersection Summary

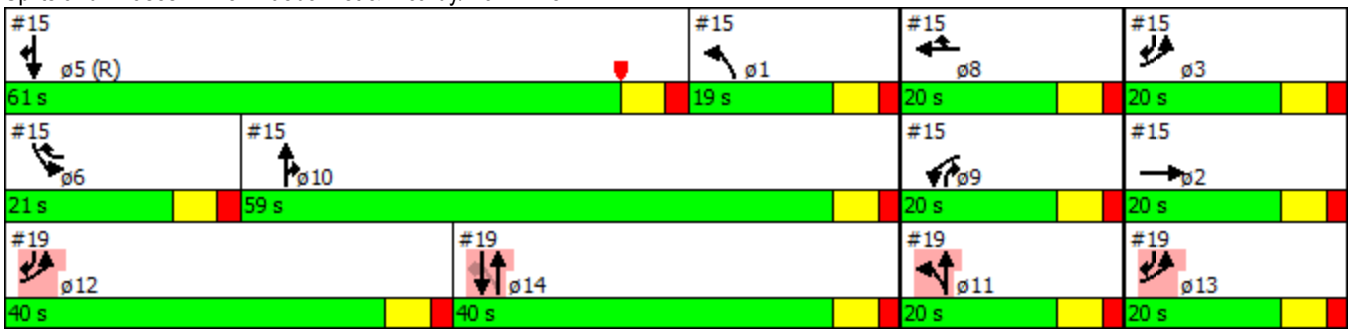
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 79 (66%), Referenced to phase 5:SBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 20.8 Intersection LOS: C
Intersection Capacity Utilization 60.4% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

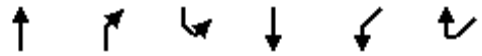
Lane Group	ø11	ø12	ø13	ø14
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	3.0
Minimum Split (s)	10.0	22.0	10.0	9.0
Total Split (s)	20.0	40.0	20.0	40.0
Total Split (%)	17%	33%	17%	33%
Maximum Green (s)	14.0	34.0	14.0	34.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	1.0
Minimum Gap (s)	3.0	3.0	3.0	0.2
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

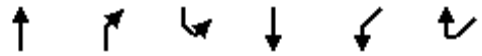
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 15: Bluebonnet & Picardy/Mall Drive 2





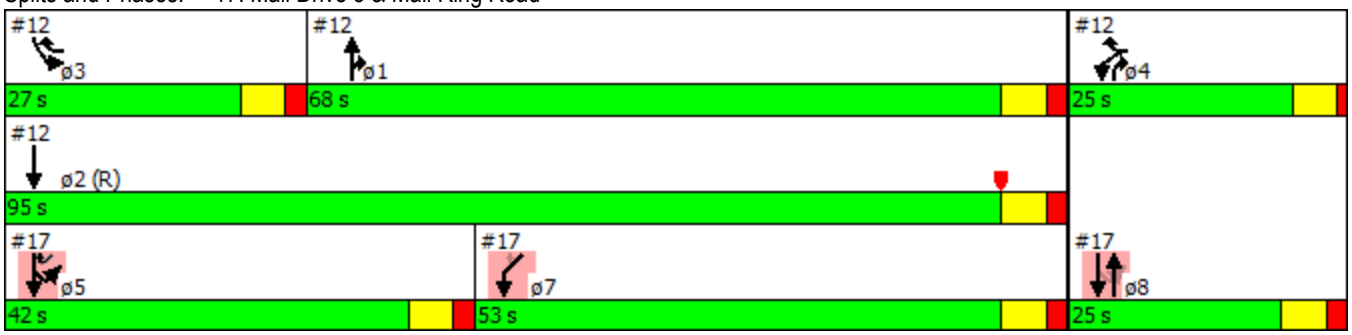
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Lane Configurations										
Volume (vph)	284	227	285	271	219	215				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00				
Frt	0.933					0.850				
Flt Protected			0.950		0.950					
Satd. Flow (prot)	3302	0	1770	1863	1770	1583				
Flt Permitted			0.289		0.950					
Satd. Flow (perm)	3302	0	538	1863	1770	1583				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)	144					81				
Link Speed (mph)	30			30	30					
Link Distance (ft)	797			352	1050					
Travel Time (s)	18.1			8.0	23.9					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Adj. Flow (vph)	309	247	310	295	238	234				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	556	0	310	295	238	234				
Enter Blocked Intersection	No	No	No	No	No	No				
Lane Alignment	Left	Right	Left	Left	Left	Right				
Median Width(ft)	0			12	12					
Link Offset(ft)	0			0	0					
Crosswalk Width(ft)	16			16	16					
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)		9	15		15	9				
Number of Detectors	2		1	2	1	1				
Detector Template	Thru		Left	Thru	Left	Right				
Leading Detector (ft)	100		20	100	20	20				
Trailing Detector (ft)	0		0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0				
Detector 1 Size(ft)	6		20	6	20	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel										
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0				
Detector 2 Position(ft)	94			94						
Detector 2 Size(ft)	6			6						
Detector 2 Type	Cl+Ex			Cl+Ex						
Detector 2 Channel										
Detector 2 Extend (s)	0.0			0.0						
Turn Type	NA		D.P+P	NA	Prot	pm+ov				
Protected Phases	8		5	5 8	7	5	1	2	3	4
Permitted Phases			8			7				
Detector Phase	8		5	5 8	7	5				
Switch Phase										
Minimum Initial (s)	34.0		4.0		4.0	4.0	24.0	34.0	4.0	4.0
Minimum Split (s)	40.0		10.0		22.0	10.0	30.0	40.0	10.0	10.0

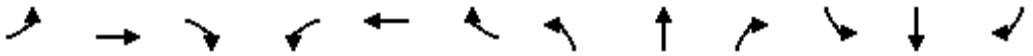


Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Total Split (s)	25.0		42.0		53.0	42.0	68.0	95.0	27.0	25.0
Total Split (%)	20.8%		35.0%		44.2%	35.0%	57%	79%	23%	21%
Maximum Green (s)	19.0		36.0		47.0	36.0	62.0	89.0	21.0	20.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0		2.0	2.0	2.0	2.0	2.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0				
Total Lost Time (s)	6.0		6.0		6.0	6.0				
Lead/Lag			Lead		Lag	Lead	Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	Yes				
Vehicle Extension (s)	4.3		2.5		3.0	2.5	4.3	4.3	2.0	2.5
Minimum Gap (s)	2.2		0.2		3.0	0.2	2.2	2.2	0.2	0.2
Time Before Reduce (s)	30.0		0.0		0.0	0.0	20.0	30.0	0.0	0.0
Time To Reduce (s)	15.0		0.0		0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	Min		None		None	None	Min	C-Min	None	None
Walk Time (s)					5.0					
Flash Dont Walk (s)					11.0					
Pedestrian Calls (#/hr)					0					
Act Effct Green (s)	31.8		51.8	57.8	50.2	76.2				
Actuated g/C Ratio	0.26		0.43	0.48	0.42	0.64				
v/c Ratio	0.57		0.71	0.33	0.32	0.23				
Control Delay	30.9		52.0	28.2	13.5	4.2				
Queue Delay	0.0		0.0	0.5	0.0	0.0				
Total Delay	30.9		52.0	28.7	13.5	4.2				
LOS	C		D	C	B	A				
Approach Delay	30.9			40.6	8.9					
Approach LOS	C			D	A					
Queue Length 50th (ft)	141		182	171	28	0				
Queue Length 95th (ft)	217		236	262	82	45				
Internal Link Dist (ft)	717			272	970					
Turn Bay Length (ft)										
Base Capacity (vph)	980		673	1145	748	1031				
Starvation Cap Reductn	0		0	467	0	0				
Spillback Cap Reductn	0		0	0	0	0				
Storage Cap Reductn	0		0	0	0	0				
Reduced v/c Ratio	0.57		0.46	0.44	0.32	0.23				

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 100 (83%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 28.1		Intersection LOS: C	
Intersection Capacity Utilization 71.3%		ICU Level of Service C	
Analysis Period (min) 15			

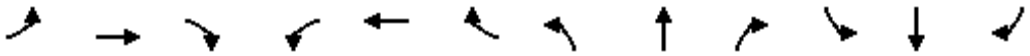
Splits and Phases: 17: Mall Drive 3 & Mall Ring Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	1500	62	293	1707	30	0	0	483	24	7	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		200	300		100	0		0	65		0
Storage Lanes	1		1	2		1	0		2	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.894	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1665	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1665	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82			32			191		17	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1065			834			318			371	
Travel Time (s)		16.1			12.6			7.2			8.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	27	1579	65	308	1797	32	0	0	508	25	7	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	27	1579	65	308	1797	32	0	0	508	25	24	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1			1	1	1	
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45			45	45	45	
Trailing Detector (ft)	-6	284	-6	-6	284	-6			-6	-6	-6	
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			-6	-6	-6	
Detector 1 Size(ft)	51	51	51	51	51	51			51	51	51	
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA	Perm	Prot	NA	custom			Over	Perm	NA	
Protected Phases	1	7		5	4	2			5		2	
Permitted Phases			7			4				2		
Detector Phase	1	7	7	5	4	2			5	2	2	

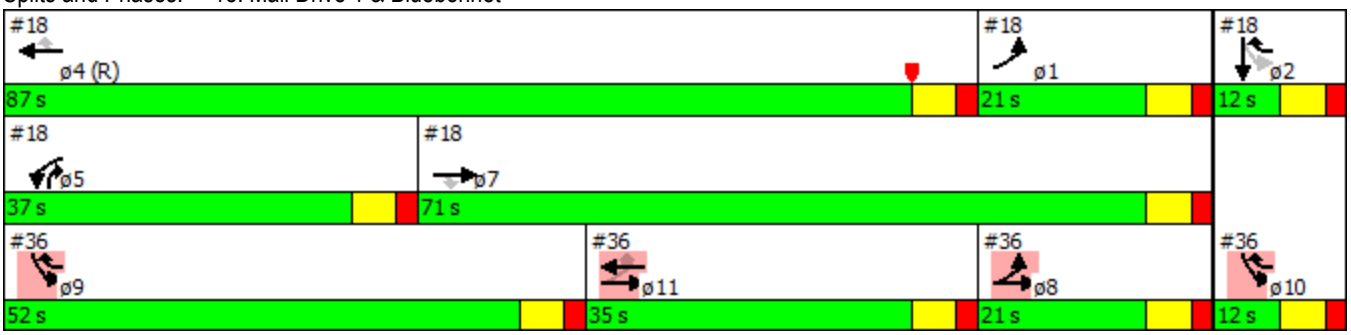
Lane Group	ø8	ø9	ø10	ø11
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	8	9	10	11
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	14.0	4.0	14.0	4.0			4.0	4.0	4.0	
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	10.0			10.0	10.0	10.0	
Total Split (s)	21.0	71.0	71.0	37.0	87.0	12.0			37.0	12.0	12.0	
Total Split (%)	17.5%	59.2%	59.2%	30.8%	72.5%	10.0%			30.8%	10.0%	10.0%	
Maximum Green (s)	15.0	65.0	65.0	31.0	81.0	6.0			31.0	6.0	6.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0			6.0	6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	4.3	4.3	2.5	4.3	2.0			2.5	2.0	2.0	
Minimum Gap (s)	0.2	2.2	2.2	0.2	2.2	0.2			0.2	0.2	0.2	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	34.0	0.0			0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	15.0	0.0			0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Min	None			None	None	None	
Act Effct Green (s)	19.6	75.2	75.2	20.7	83.2	99.0			20.7	6.1	6.1	
Actuated g/C Ratio	0.16	0.63	0.63	0.17	0.69	0.82			0.17	0.05	0.05	
v/c Ratio	0.09	0.50	0.06	0.52	0.51	0.02			0.80	0.28	0.24	
Control Delay	30.0	6.0	0.3	32.8	14.6	0.3			47.8	63.0	34.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			0.1	0.0	0.0	
Total Delay	30.0	6.0	0.3	32.8	14.6	0.3			47.9	63.0	34.7	
LOS	C	A	A	C	B	A			D	E	C	
Approach Delay		6.1			17.0						49.2	
Approach LOS		A			B						D	
Queue Length 50th (ft)	17	86	0	95	276	0			148	19	5	
Queue Length 95th (ft)	m14	120	m1	m114	556	m1			209	49	34	
Internal Link Dist (ft)		985			754			238			291	
Turn Bay Length (ft)	140		200	300		100				65		
Base Capacity (vph)	372	3186	1022	886	3960	1311			861	90	101	
Starvation Cap Reductn	0	0	0	0	0	0			26	0	0	
Spillback Cap Reductn	0	0	0	0	0	0			0	0	0	
Storage Cap Reductn	0	0	0	0	0	0			0	0	0	
Reduced v/c Ratio	0.07	0.50	0.06	0.35	0.45	0.02			0.61	0.28	0.24	

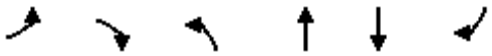
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 88 (73%), Referenced to phase 4:WBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 16.8		Intersection LOS: B	
Intersection Capacity Utilization 64.2%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 18: Mall Drive 1 & Bluebonnet



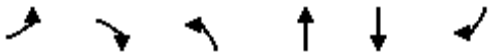
Lane Group	ø8	ø9	ø10	ø11
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	14.0
Minimum Split (s)	22.0	10.0	22.0	20.0
Total Split (s)	21.0	52.0	12.0	35.0
Total Split (%)	18%	43%	10%	29%
Maximum Green (s)	15.0	46.0	6.0	29.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	4.3
Minimum Gap (s)	3.0	3.0	3.0	2.2
Time Before Reduce (s)	0.0	0.0	0.0	34.0
Time To Reduce (s)	0.0	0.0	0.0	15.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Lane Configurations												
Volume (vph)	285	185	252	260	249	111						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Frt		0.850				0.850						
Flt Protected	0.950		0.950									
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583						
Flt Permitted	0.950		0.490									
Satd. Flow (perm)	1770	1583	913	1863	1863	1583						
Right Turn on Red		Yes				Yes						
Satd. Flow (RTOR)		201				121						
Link Speed (mph)	30			30	30							
Link Distance (ft)	403			1050	819							
Travel Time (s)	9.2			23.9	18.6							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	310	201	274	283	271	121						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	310	201	274	283	271	121						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Right	Left	Left	Left	Right						
Median Width(ft)	36			12	0							
Link Offset(ft)	0			0	0							
Crosswalk Width(ft)	16			16	16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15	9	15			9						
Number of Detectors	1	1	1	2	2	1						
Detector Template	Left	Right	Left	Thru	Thru	Right						
Leading Detector (ft)	20	20	20	100	100	20						
Trailing Detector (ft)	0	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0	0						
Detector 1 Size(ft)	20	20	20	6	6	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)				94	94							
Detector 2 Size(ft)				6	6							
Detector 2 Type				Cl+Ex	Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)				0.0	0.0							
Turn Type	Prot	Free	D.P+P	NA	NA	pm+ov						
Protected Phases	12 13		11	11 14	14	12 13	1	2	3	5	6	8
Permitted Phases		Free	14			14						
Detector Phase	12 13		11	11 14	14	12 13						
Switch Phase												
Minimum Initial (s)			4.0		3.0		3.0	3.0	3.0	21.0	3.0	3.0
Minimum Split (s)			10.0		9.0		11.0	9.0	9.0	27.0	11.0	9.0

Lane Group	ø9	ø10	ø12	ø13
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	9	10	12	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	21.0	4.0	4.0
Minimum Split (s)	9.0	27.0	22.0	10.0

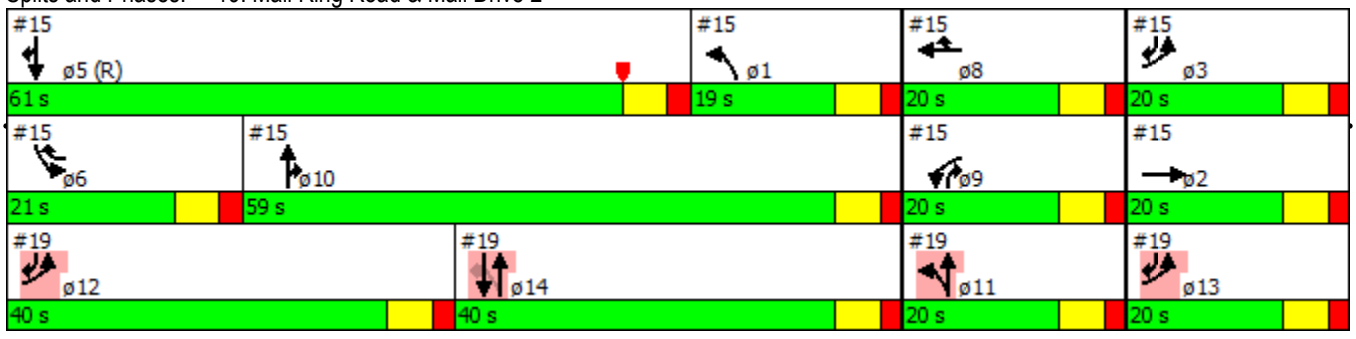


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Total Split (s)			20.0		40.0		19.0	20.0	20.0	61.0	21.0	20.0
Total Split (%)			16.7%		33.3%		16%	17%	17%	51%	18%	17%
Maximum Green (s)			14.0		34.0		13.0	14.0	14.0	55.0	15.0	14.0
Yellow Time (s)			4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)			2.0		2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0		0.0							
Total Lost Time (s)			6.0		6.0							
Lead/Lag					Lag		Lag			Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0		1.0		3.0	1.0	1.5	4.3	1.0	1.0
Minimum Gap (s)			3.0		0.2		0.2	0.2	0.2	2.2	0.2	0.2
Time Before Reduce (s)			0.0		0.0		0.0	0.0	0.0	28.0	0.0	0.0
Time To Reduce (s)			0.0		0.0		0.0	0.0	0.0	15.0	0.0	0.0
Recall Mode			None		None		None	None	None	C-Min	None	None
Act Effct Green (s)	47.3	120.0	54.7	60.7	42.3	95.6						
Actuated g/C Ratio	0.39	1.00	0.46	0.51	0.35	0.80						
v/c Ratio	0.44	0.13	0.54	0.30	0.41	0.09						
Control Delay	41.3	0.2	46.1	34.0	14.9	0.1						
Queue Delay	0.2	0.0	0.0	0.0	0.0	0.0						
Total Delay	41.5	0.2	46.1	34.0	14.9	0.1						
LOS	D	A	D	C	B	A						
Approach Delay	25.3			40.0	10.3							
Approach LOS	C			D	B							
Queue Length 50th (ft)	157	0	217	224	77	0						
Queue Length 95th (ft)	163	1	307	316	286	0						
Internal Link Dist (ft)	323			970	739							
Turn Bay Length (ft)												
Base Capacity (vph)	862	1583	539	970	666	1269						
Starvation Cap Reductn	130	0	0	0	0	0						
Spillback Cap Reductn	0	0	0	0	0	0						
Storage Cap Reductn	0	0	0	0	0	0						
Reduced v/c Ratio	0.42	0.13	0.51	0.29	0.41	0.10						

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 79 (66%), Referenced to phase 5:SBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 26.9 Intersection LOS: C
Intersection Capacity Utilization 57.9% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 19: Mall Ring Road & Mall Drive 2



Lane Group	ø9	ø10	ø12	ø13
Total Split (s)	20.0	59.0	40.0	20.0
Total Split (%)	17%	49%	33%	17%
Maximum Green (s)	14.0	53.0	34.0	14.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?			Yes	
Vehicle Extension (s)	1.0	4.3	3.0	3.0
Minimum Gap (s)	0.2	0.2	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	107	13	840	0	0	0	0	1701	306	268	1190	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		0	0		0	400		0	300		0
Storage Lanes	1		1	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950	0.962								0.950		
Satd. Flow (prot)	1681	1702	1583	0	0	0	0	6408	1583	1770	3539	0
Flt Permitted	0.950	0.962								0.950		
Satd. Flow (perm)	1681	1702	1583	0	0	0	0	6408	1583	1770	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			559						322			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1072			1024			834			410	
Travel Time (s)		24.4			23.3			12.6			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	113	14	884	0	0	0	0	1791	322	282	1253	0
Shared Lane Traffic (%)	44%											
Lane Group Flow (vph)	63	64	884	0	0	0	0	1791	322	282	1253	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			25	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					2	1	1	2	
Detector Template												
Leading Detector (ft)	45	45	45					290	45	45	290	
Trailing Detector (ft)	-6	-6	-6					284	-6	-6	284	
Detector 1 Position(ft)	-6	-6	-6					-6	-6	-6	-6	
Detector 1 Size(ft)	51	51	51					51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA	Free					NA	Perm	Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2			
Detector Phase	4	4						2	2	1	6	

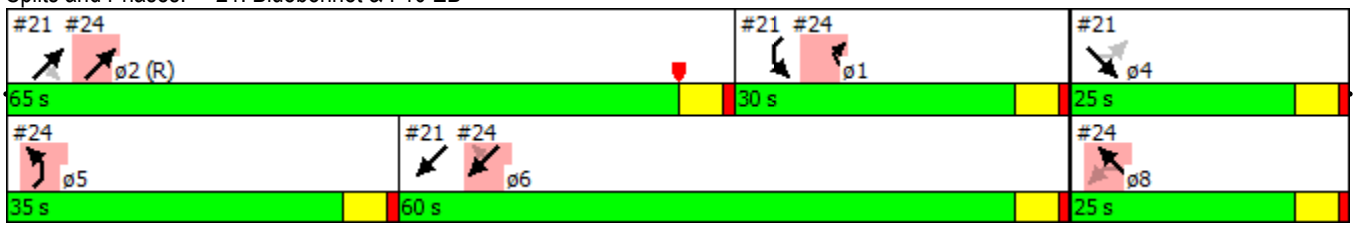
Lane Group	ø5	ø8
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	5	8
Permitted Phases		
Detector Phase		

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)	3.0	3.0						10.0	10.0	3.0	10.0	
Minimum Split (s)	20.0	20.0						20.0	20.0	8.0	20.0	
Total Split (s)	25.0	25.0						65.0	65.0	30.0	60.0	
Total Split (%)	20.8%	20.8%						54.2%	54.2%	25.0%	50.0%	
Maximum Green (s)	20.0	20.0						60.0	60.0	25.0	55.0	
Yellow Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0	2.0	2.0	6.0	
Recall Mode	None	None						C-Max	C-Max	None	Max	
Act Effct Green (s)	12.7	12.7	120.0					67.3	67.3	25.0	55.0	
Actuated g/C Ratio	0.11	0.11	1.00					0.56	0.56	0.21	0.46	
v/c Ratio	0.36	0.36	0.56					0.50	0.31	0.77	0.77	
Control Delay	54.0	54.0	1.4					8.8	1.4	38.7	14.7	
Queue Delay	0.0	0.0	0.0					0.0	0.0	0.0	1.0	
Total Delay	54.0	54.0	1.4					8.8	1.4	38.7	15.7	
LOS	D	D	A					A	A	D	B	
Approach Delay		8.0						7.6			19.9	
Approach LOS		A						A			B	
Queue Length 50th (ft)	48	49	0					161	6	182	81	
Queue Length 95th (ft)	92	92	0					199	13	m253	146	
Internal Link Dist (ft)		992			944			754			330	
Turn Bay Length (ft)	375									300		
Base Capacity (vph)	280	283	1583					3594	1029	368	1622	
Starvation Cap Reductn	0	0	0					0	0	0	154	
Spillback Cap Reductn	0	0	0					59	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.23	0.23	0.56					0.51	0.31	0.77	0.85	

Intersection Summary

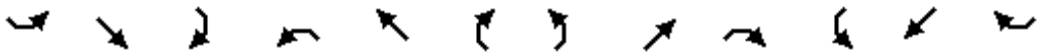
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NET, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 11.8 Intersection LOS: B
Intersection Capacity Utilization 74.0% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: Bluebonnet & I-10 EB



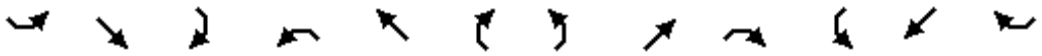
Lane Group	ø5	ø8
Switch Phase		
Minimum Initial (s)	3.0	3.0
Minimum Split (s)	8.0	20.0
Total Split (s)	35.0	25.0
Total Split (%)	29%	21%
Maximum Green (s)	30.0	20.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?		
Vehicle Extension (s)	3.5	2.0
Recall Mode	Max	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	0	0	212	6	300	737	1071	0	0	1246	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		525	300		0	0		575
Storage Lanes	0		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt						0.850						0.850
Flt Protected				0.950	0.955		0.950					
Satd. Flow (prot)	0	0	0	1681	1690	1583	3433	3539	0	0	3539	1583
Flt Permitted				0.950	0.955		0.950					
Satd. Flow (perm)	0	0	0	1681	1690	1583	3433	3539	0	0	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						316						143
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		894			1008			410			866	
Travel Time (s)		20.3			22.9			6.2			13.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	223	6	316	776	1127	0	0	1312	143
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	0	0	114	115	316	776	1127	0	0	1312	143
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			40			50	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			2	1
Detector Template												
Leading Detector (ft)				45	45	45	45	290			290	45
Trailing Detector (ft)				-6	-6	-6	-6	284			284	-6
Detector 1 Position(ft)				-6	-6	-6	-6	-6			-6	-6
Detector 1 Size(ft)				51	51	51	51	51			51	51
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call			Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type				Perm	NA	custom	Prot	NA			NA	Perm
Protected Phases					8	1	5	2			6	
Permitted Phases				8								6
Detector Phase				8	8	1	5	2			6	6

Lane Group	ø4
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	

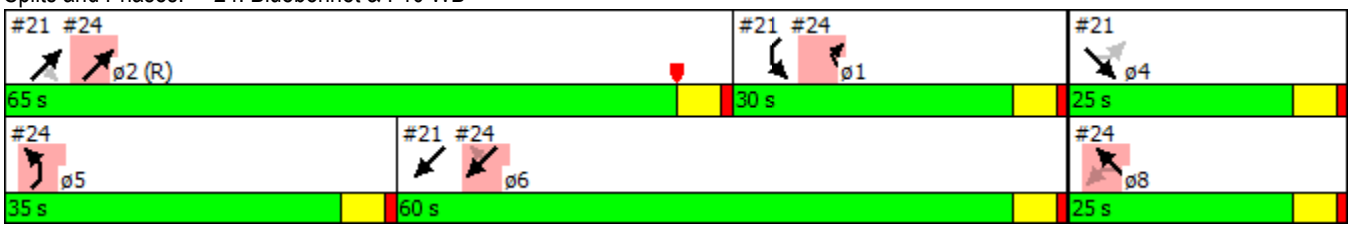


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)				3.0	3.0	3.0	3.0	10.0			10.0	10.0
Minimum Split (s)				20.0	20.0	8.0	8.0	20.0			20.0	20.0
Total Split (s)				25.0	25.0	30.0	35.0	65.0			60.0	60.0
Total Split (%)				20.8%	20.8%	25.0%	29.2%	54.2%			50.0%	50.0%
Maximum Green (s)				20.0	20.0	25.0	30.0	60.0			55.0	55.0
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
All-Red Time (s)				1.0	1.0	1.0	1.0	1.0			1.0	1.0
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)				5.0	5.0	5.0	5.0	5.0			5.0	5.0
Lead/Lag						Lag	Lead	Lead			Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0	2.0	3.5	2.0			6.0	6.0
Recall Mode				None	None	None	Max	C-Max			Max	Max
Act Effct Green (s)				12.7	12.7	25.0	37.3	67.3			55.0	55.0
Actuated g/C Ratio				0.11	0.11	0.21	0.31	0.56			0.46	0.46
v/c Ratio				0.64	0.65	0.55	0.73	0.57			0.81	0.18
Control Delay				67.3	67.4	8.2	35.1	3.7			27.8	3.3
Queue Delay				0.0	0.0	0.0	0.4	0.0			0.1	0.0
Total Delay				67.3	67.4	8.2	35.5	3.7			27.9	3.3
LOS				E	E	A	D	A			C	A
Approach Delay					33.1			16.6			25.4	
Approach LOS					C			B			C	
Queue Length 50th (ft)				90	91	0	145	32			474	34
Queue Length 95th (ft)				149	151	77	#307	67			554	9
Internal Link Dist (ft)		814			928			330			786	
Turn Bay Length (ft)						525	300					575
Base Capacity (vph)				280	281	579	1067	1985			1622	803
Starvation Cap Reductn				0	0	0	54	0			0	0
Spillback Cap Reductn				0	0	0	0	0			11	0
Storage Cap Reductn				0	0	0	0	0			0	0
Reduced v/c Ratio				0.41	0.41	0.55	0.77	0.57			0.81	0.18

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NET, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 22.2		Intersection LOS: C	
Intersection Capacity Utilization 74.0%		ICU Level of Service D	
Analysis Period (min) 15			

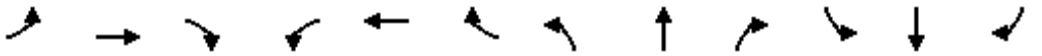
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 24: Bluebonnet & I-10 WB



Lane Group	ø4
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	20.0
Total Split (s)	25.0
Total Split (%)	21%
Maximum Green (s)	20.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary



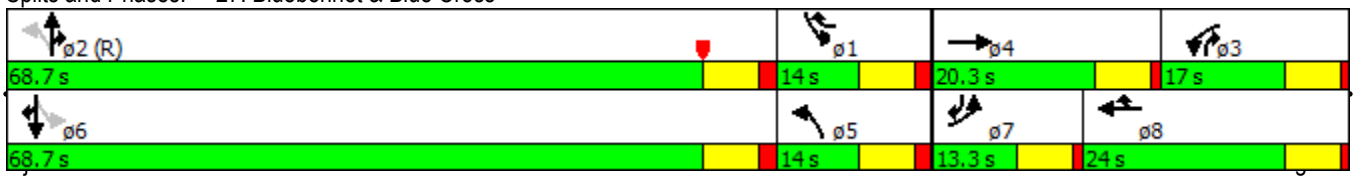
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	1	24	108	4	7	30	1254	87	10	1250	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		200	300		175	175		175
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.856			0.950	0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3030	0	3433	1681	1504	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.156			0.157		
Satd. Flow (perm)	1770	3030	0	3433	1681	1504	291	3539	1583	292	3539	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		157										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		475			1072			866			1049	
Travel Time (s)		10.8			24.4			13.1			15.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	38	1	25	114	4	7	32	1320	92	11	1316	8
Shared Lane Traffic (%)						26%						
Lane Group Flow (vph)	38	26	0	114	6	5	32	1320	92	11	1316	8
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		60			60			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4		3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases							2			6		
Detector Phase	7	4		3	8	8 1	5	2	2 3	1	6	6 7

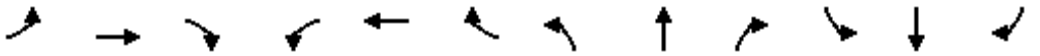
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	5.0		5.0	3.0		3.0	20.0		5.0	20.0	
Minimum Split (s)	8.9	10.9		10.9	8.9		9.6	26.6		11.6	26.6	
Total Split (s)	13.3	20.3		17.0	24.0		14.0	68.7		14.0	68.7	
Total Split (%)	11.1%	16.9%		14.2%	20.0%		11.7%	57.3%		11.7%	57.3%	
Maximum Green (s)	7.4	14.4		11.1	18.1		7.4	62.1		7.4	62.1	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	0.9	0.9		0.9	0.9		1.6	1.6		1.6	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.9	5.9		5.9	5.9		6.6	6.6		6.6	6.6	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		2.5	1.5		1.5	5.0		1.5	5.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	9.3	5.0		9.0	6.8	10.3	91.1	87.2	104.8	89.9	84.8	97.4
Actuated g/C Ratio	0.08	0.04		0.08	0.06	0.09	0.76	0.73	0.87	0.75	0.71	0.81
v/c Ratio	0.28	0.09		0.44	0.06	0.04	0.11	0.51	0.07	0.04	0.53	0.01
Control Delay	56.8	0.7		58.1	55.0	33.8	1.8	3.7	0.9	3.8	10.0	2.5
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.8	0.7		58.1	55.0	33.8	1.8	3.7	0.9	3.8	10.0	2.5
LOS	E	A		E	D	C	A	A	A	A	A	A
Approach Delay		34.0			57.0			3.5			9.9	
Approach LOS		C			E			A			A	
Queue Length 50th (ft)	25	0		44	5	3	1	30	2	1	294	1
Queue Length 95th (ft)	65	0		73	20	13	m2	60	7	m4	382	m2
Internal Link Dist (ft)		395			992			786			969	
Turn Bay Length (ft)	75			200		200	300		175	175		175
Base Capacity (vph)	152	501		320	253	287	318	2571	1340	315	2501	1298
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.05		0.36	0.02	0.02	0.10	0.51	0.07	0.03	0.53	0.01

Intersection Summary

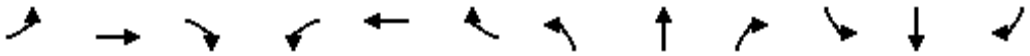
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 26 (22%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.53
Intersection Signal Delay: 9.3 Intersection LOS: A
Intersection Capacity Utilization 56.7% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 27: Bluebonnet & Blue Cross





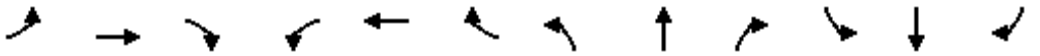
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	0	18	14	0	2	12	1223	4	0	1184	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		130	150		185
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.905			0.984				0.850			0.850
Flt Protected		0.985			0.958		0.950					
Satd. Flow (prot)	0	1660	0	0	1756	0	1770	3539	1583	1863	3539	1583
Flt Permitted		0.894			0.965		0.217					
Satd. Flow (perm)	0	1507	0	0	1769	0	404	3539	1583	1863	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			27				27			27
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1129			1330			1049			1811	
Travel Time (s)		25.7			30.2			15.9			27.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	8	0	19	15	0	2	13	1287	4	0	1246	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	27	0	0	17	0	13	1287	4	0	1246	4
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



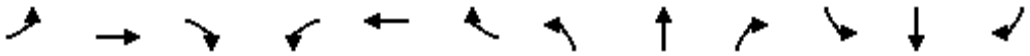
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	11.0	11.0		11.0	11.0		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.0	24.0		24.0	24.0		84.0	84.0	84.0	84.0	84.0	84.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		6.0			6.0		108.9	108.9	108.9		108.9	108.9
Actuated g/C Ratio		0.05			0.05		0.91	0.91	0.91		0.91	0.91
v/c Ratio		0.27			0.15		0.04	0.40	0.00		0.39	0.00
Control Delay		25.6			14.2		1.1	1.0	0.0		1.9	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0		0.0	0.0
Total Delay		25.6			14.2		1.1	1.0	0.0		1.9	0.0
LOS		C			B		A	A	A		A	A
Approach Delay		25.6			14.3			1.0			1.9	
Approach LOS		C			B			A			A	
Queue Length 50th (ft)		0			0		1	48	0		78	0
Queue Length 95th (ft)		30			16		m1	44	m0		117	m0
Internal Link Dist (ft)		1049			1250			969			1731	
Turn Bay Length (ft)							150		130			185
Base Capacity (vph)		323			375		367	3212	1439		3212	1439
Starvation Cap Reductn		0			0		0	0	0		0	0
Spillback Cap Reductn		0			0		0	0	0		0	0
Storage Cap Reductn		0			0		0	0	0		0	0
Reduced v/c Ratio		0.08			0.05		0.04	0.40	0.00		0.39	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 71 (59%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.40			
Intersection Signal Delay: 1.8		Intersection LOS: A	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 30: Bluebonnet & Gail



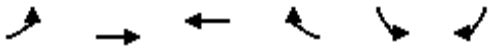
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	1	18	11	0	14	22	1180	27	19	1106	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.901			0.925				0.850			0.850
Flt Protected		0.989			0.978		0.950			0.950		
Satd. Flow (prot)	0	1660	0	0	1685	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.912			0.845		0.238			0.218		
Satd. Flow (perm)	0	1531	0	0	1456	0	443	3539	1583	406	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19			27				29			29
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1794			2049			1811			2409	
Travel Time (s)		40.8			46.6			27.4			36.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	6	1	19	12	0	15	23	1242	28	20	1164	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	26	0	0	27	0	23	1242	28	20	1164	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	9.2	9.2		9.2	9.2		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	34.2	34.2		34.2	34.2		85.8	85.8	85.8	85.8	85.8	85.8
Total Split (%)	28.5%	28.5%		28.5%	28.5%		71.5%	71.5%	71.5%	71.5%	71.5%	71.5%
Maximum Green (s)	28.0	28.0		28.0	28.0		79.8	79.8	79.8	79.8	79.8	79.8
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.2	1.2		1.2	1.2		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.2			6.2		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		6.2			6.2		108.5	108.5	108.5	108.5	108.5	108.5
Actuated g/C Ratio		0.05			0.05		0.90	0.90	0.90	0.90	0.90	0.90
v/c Ratio		0.27			0.27		0.06	0.39	0.02	0.05	0.36	0.01
Control Delay		34.3			25.4		1.1	1.1	0.5	1.9	1.9	0.1
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		34.3			25.4		1.1	1.1	0.5	1.9	1.9	0.1
LOS		C			C		A	A	A	A	A	A
Approach Delay		34.3			25.4			1.1			1.9	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		5			0		2	67	0	2	75	0
Queue Length 95th (ft)		35			30		m3	45	0	6	112	1
Internal Link Dist (ft)		1714			1969			1731			2329	
Turn Bay Length (ft)							150		150	150		150
Base Capacity (vph)		371			360		400	3200	1434	367	3200	1434
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.07			0.07		0.06	0.39	0.02	0.05	0.36	0.01

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 106 (88%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.39			
Intersection Signal Delay: 2.1		Intersection LOS: A	
Intersection Capacity Utilization 68.5%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 33: Bluebonnet & Oliphant



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Lane Configurations												
Volume (vph)	172	373	216	311	218	144						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.95						
Frt				0.850	0.940							
Flt Protected	0.950				0.971							
Satd. Flow (prot)	1770	1863	1863	1583	3298	0						
Flt Permitted	0.399				0.971							
Satd. Flow (perm)	743	1863	1863	1583	3298	0						
Right Turn on Red				Yes		Yes						
Satd. Flow (RTOR)				338	157							
Link Speed (mph)		30	30		30							
Link Distance (ft)		819	802		318							
Travel Time (s)		18.6	18.2		7.2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	187	405	235	338	237	157						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	187	405	235	338	394	0						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Right	Left	Right						
Median Width(ft)		12	0		36							
Link Offset(ft)		0	0		0							
Crosswalk Width(ft)		16	16		16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15			9	15	9						
Number of Detectors	1	2	2	1	1							
Detector Template	Left	Thru	Thru	Right	Left							
Leading Detector (ft)	20	100	100	20	20							
Trailing Detector (ft)	0	0	0	0	0							
Detector 1 Position(ft)	0	0	0	0	0							
Detector 1 Size(ft)	20	6	6	20	20							
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex							
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0							
Detector 2 Position(ft)		94	94									
Detector 2 Size(ft)		6	6									
Detector 2 Type		Cl+Ex	Cl+Ex									
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0									
Turn Type	D.P+P	NA	NA	pm+ov	Prot							
Protected Phases	8	8 11	11	9 10	9 10		1	2	4	5	7	9
Permitted Phases	11			11								
Detector Phase	8	8 11	11	9 10	9 10							
Switch Phase												
Minimum Initial (s)	4.0		14.0				4.0	4.0	14.0	4.0	14.0	4.0
Minimum Split (s)	22.0		20.0				10.0	10.0	20.0	10.0	20.0	10.0

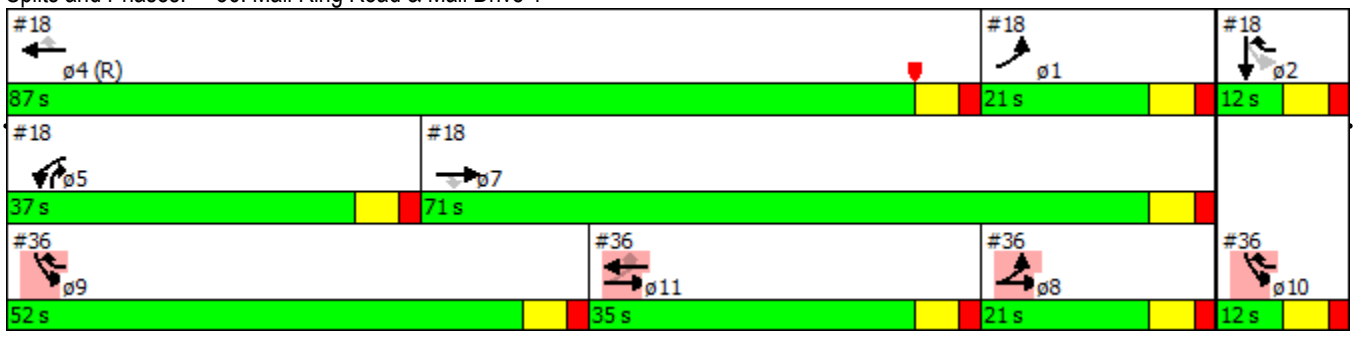
Lane Group	ø10
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	10
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	22.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Total Split (s)	21.0		35.0				21.0	12.0	87.0	37.0	71.0	52.0
Total Split (%)	17.5%		29.2%				18%	10%	73%	31%	59%	43%
Maximum Green (s)	15.0		29.0				15.0	6.0	81.0	31.0	65.0	46.0
Yellow Time (s)	4.0		4.0				4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0				2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0									
Total Lost Time (s)	6.0		6.0									
Lead/Lag			Lag				Lag		Lead	Lead	Lag	Lead
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0		4.3				2.5	2.0	4.3	2.5	4.3	3.0
Minimum Gap (s)	3.0		2.2				0.2	0.2	2.2	0.2	2.2	3.0
Time Before Reduce (s)	0.0		34.0				0.0	0.0	34.0	0.0	0.0	0.0
Time To Reduce (s)	0.0		15.0				0.0	0.0	15.0	0.0	0.0	0.0
Recall Mode	None		None				None	None	C-Min	None	None	None
Act Effct Green (s)	80.1	86.1	24.1	52.0	21.9							
Actuated g/C Ratio	0.67	0.72	0.20	0.43	0.18							
v/c Ratio	0.19	0.30	0.63	0.39	0.54							
Control Delay	4.2	3.9	50.6	2.8	48.7							
Queue Delay	0.0	0.0	0.0	0.0	0.0							
Total Delay	4.2	3.9	50.6	2.8	48.7							
LOS	A	A	D	A	D							
Approach Delay		4.0	22.4		48.7							
Approach LOS		A	C		D							
Queue Length 50th (ft)	42	121	168	0	100							
Queue Length 95th (ft)	5	17	231	41	67							
Internal Link Dist (ft)		739	722		238							
Turn Bay Length (ft)												
Base Capacity (vph)	975	1319	462	958	1679							
Starvation Cap Reductn	0	0	0	0	23							
Spillback Cap Reductn	0	0	0	0	0							
Storage Cap Reductn	0	0	0	0	0							
Reduced v/c Ratio	0.19	0.31	0.51	0.35	0.24							

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 88 (73%), Referenced to phase 4:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 22.1 Intersection LOS: C
Intersection Capacity Utilization 47.0% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 36: Mall Ring Road & Mall Drive 1

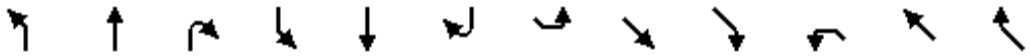


Lane Group	ø10
Total Split (s)	12.0
Total Split (%)	10%
Maximum Green (s)	6.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Minimum Gap (s)	3.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

M.8 2017 NO BUILD AM – ESSEN LANE

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	279	702	41	232	513	430	536	499	34	75	972	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	800		0	300		0	150		0
Storage Lanes	1		0	1		1	2		0	1		0
Taper Length (ft)	150			25			200			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Frt		0.992				0.850		0.990			0.969	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3511	0	1770	3539	1583	3433	3504	0	1770	3429	0
Flt Permitted	0.198			0.112			0.950			0.950		
Satd. Flow (perm)	369	3511	0	209	3539	1583	3433	3504	0	1770	3429	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3				404		4			19	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1877			1475			2128			1788	
Travel Time (s)		28.4			22.3			32.2			27.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	303	763	45	252	558	467	583	542	37	82	1057	277
Shared Lane Traffic (%)												
Lane Group Flow (vph)	303	808	0	252	558	467	583	579	0	82	1334	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	0	1	1		1	1	
Detector Template												
Leading Detector (ft)	45	162		45	162	0	45	45		45	45	
Trailing Detector (ft)	0	156		0	156	0	0	0		0	0	
Detector 1 Position(ft)	0	-6		0	-6	0	0	0		0	0	
Detector 1 Size(ft)	45	51		45	51	50	45	45		45	45	
Detector 1 Type	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2		2						
Detector Phase	1	6		5	2	2	3	8		7	4	



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	5.0	10.0		3.0	10.0	
Minimum Split (s)	8.8	15.8		8.8	15.8	15.8	11.5	16.5		9.5	16.5	
Total Split (s)	30.8	40.8		30.8	45.8	45.8	41.5	66.5		21.5	56.5	
Total Split (%)	17.6%	23.4%		17.6%	26.2%	26.2%	23.8%	38.1%		12.3%	32.4%	
Maximum Green (s)	25.0	35.0		25.0	40.0	40.0	35.0	60.0		15.0	50.0	
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8	5.5	5.5		5.5	5.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8		5.8	5.8	5.8	6.5	6.5		6.5	6.5	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	6.0		2.0	6.0	6.0	2.0	6.0		2.0	6.0	
Minimum Gap (s)	0.2	4.0		0.2	4.0	4.0	0.2	4.0		0.2	4.0	
Time Before Reduce (s)	0.0	20.0		0.0	20.0	20.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	
Act Effct Green (s)	60.1	36.6		58.4	35.7	35.7	31.1	37.3		44.0	50.2	
Actuated g/C Ratio	0.36	0.22		0.35	0.22	0.22	0.19	0.23		0.27	0.30	
v/c Ratio	0.91	1.04		0.88	0.73	0.71	0.90	0.73		0.17	1.27	
Control Delay	70.0	103.0		76.3	67.1	16.0	83.9	64.6		51.2	172.3	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	70.0	103.0		76.3	67.1	16.0	83.9	64.6		51.2	172.3	
LOS	E	F		E	E	B	F	E		D	F	
Approach Delay		94.0			50.2			74.3			165.3	
Approach LOS		F			D			E			F	
Queue Length 50th (ft)	243	~526		219	306	58	323	312		69	~972	
Queue Length 95th (ft)	#423	#642		#377	382	197	410	374		133	#1180	
Internal Link Dist (ft)		1797			1395			2048			1708	
Turn Bay Length (ft)	250			800			300			150		
Base Capacity (vph)	349	855		313	859	690	729	1279		471	1054	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.87	0.95		0.81	0.65	0.68	0.80	0.45		0.17	1.27	

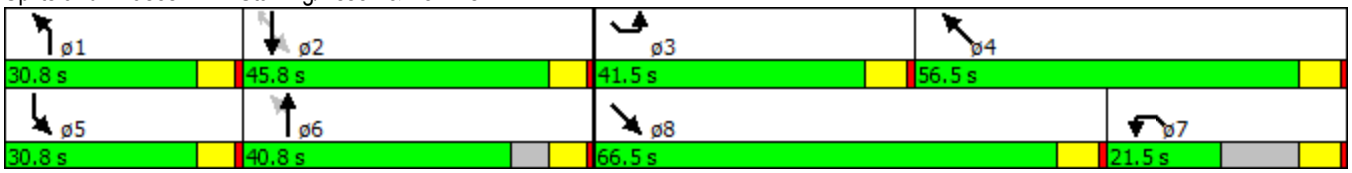
Intersection Summary			
Area Type:	Other		
Cycle Length: 174.6			
Actuated Cycle Length: 165.2			
Natural Cycle: 140			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.27			
Intersection Signal Delay: 98.4		Intersection LOS: F	
Intersection Capacity Utilization 104.4%		ICU Level of Service G	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Starring/Essen & Perkins



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	0	1322	255	125	1521	0	52	0	1483	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		0	0		800	0		0
Storage Lanes	1		0	2		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.86	0.86	0.97	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt		0.976							0.850			
Flt Protected				0.950			0.950	0.950				
Satd. Flow (prot)	0	6254	0	3433	3539	0	1681	1681	1583	0	0	0
Flt Permitted				0.950			0.950	0.950				
Satd. Flow (perm)	0	6254	0	3433	3539	0	1681	1681	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		76							245			
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		721			409			1012			1106	
Travel Time (s)		10.9			6.2			23.0			25.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1437	277	136	1653	0	57	0	1612	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	0	1714	0	136	1653	0	28	29	1612	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2		1	1	0			
Detector Template							Left					
Leading Detector (ft)		162		45	162		20	45	0			
Trailing Detector (ft)		156		0	156		0	0	0			
Detector 1 Position(ft)		-6		0	-6		0	0	0			
Detector 1 Size(ft)		51		45	51		20	45	20			
Detector 1 Type		Call		Cl+Ex	Call		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Queue (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Delay (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA		Prot	NA		Perm	NA	Free			
Protected Phases		6		5	5 6			8				
Permitted Phases							8		Free			
Detector Phase		6		5	5 6		8	8				

Lane Group	ø1	ø2	ø4
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	1	2	4
Permitted Phases			
Detector Phase			

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)		10.0		3.0			3.0	3.0				
Minimum Split (s)		16.0		9.0			9.0	9.0				
Total Split (s)		80.0		21.0			19.0	19.0				
Total Split (%)		66.7%		17.5%			15.8%	15.8%				
Maximum Green (s)		74.0		15.0			13.0	13.0				
Yellow Time (s)		5.0		5.0			5.0	5.0				
All-Red Time (s)		1.0		1.0			1.0	1.0				
Lost Time Adjust (s)		0.0		0.0			0.0	0.0				
Total Lost Time (s)		6.0		6.0			6.0	6.0				
Lead/Lag		Lag					Lead	Lead				
Lead-Lag Optimize?		Yes					Yes	Yes				
Vehicle Extension (s)		4.0		2.5			2.0	2.0				
Minimum Gap (s)		2.0		0.2			0.2	0.2				
Time Before Reduce (s)		10.0		0.0			0.0	0.0				
Time To Reduce (s)		20.0		0.0			0.0	0.0				
Recall Mode		None		C-Max			Min	Min				
Act Effct Green (s)		64.2		31.2	101.4		6.6	6.6	120.0			
Actuated g/C Ratio		0.54		0.26	0.84		0.06	0.06	1.00			
v/c Ratio		0.51		0.15	0.55		0.30	0.32	1.02			
Control Delay		14.4		32.2	7.8		62.1	62.6	30.9			
Queue Delay		0.0		0.0	0.8		0.0	0.0	5.4			
Total Delay		14.4		32.2	8.6		62.1	62.6	36.3			
LOS		B		C	A		E	E	D			
Approach Delay		14.4			10.4			37.2				
Approach LOS		B			B			D				
Queue Length 50th (ft)		227		45	221		22	23	~47			
Queue Length 95th (ft)		0		80	323		54	55	#313			
Internal Link Dist (ft)		641			329			932			1026	
Turn Bay Length (ft)									800			
Base Capacity (vph)		3924		891	2959		182	182	1583			
Starvation Cap Reductn		0		0	891		0	0	0			
Spillback Cap Reductn		337		0	56		0	0	25			
Storage Cap Reductn		0		0	0		0	0	0			
Reduced v/c Ratio		0.48		0.15	0.80		0.15	0.16	1.03			

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 22 (18%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.02			
Intersection Signal Delay: 20.4		Intersection LOS: C	
Intersection Capacity Utilization 58.2%		ICU Level of Service B	
Analysis Period (min) 15			

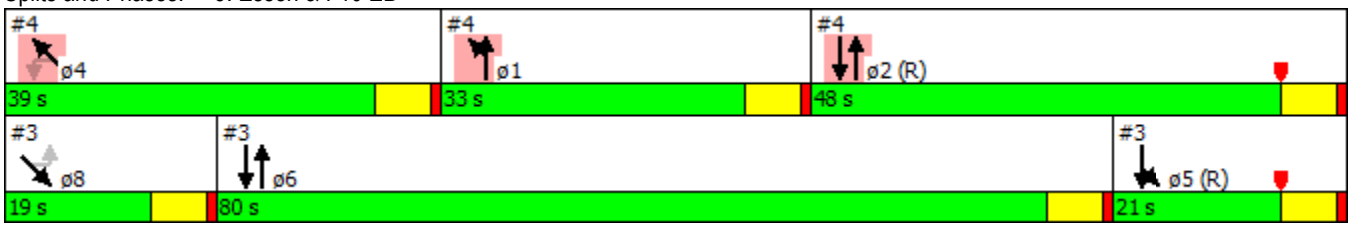
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

Lane Group	ø1	ø2	ø4
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	33.0	48.0	39.0
Total Split (%)	28%	40%	33%
Maximum Green (s)	27.0	42.0	33.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes
Vehicle Extension (s)	2.5	4.0	4.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	None	C-Max	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Essen & I-10 EB



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	425	949	0	0	1157	44	0	0	0	489	0	751
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	550		200	0		0	750		0
Storage Lanes	2		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.86	0.86	1.00	1.00	1.00	0.95	0.95	1.00
Frt					0.994							0.850
Flt Protected	0.950									0.950	0.950	
Satd. Flow (prot)	3433	3539	0	0	6369	0	0	0	0	1681	1681	1583
Flt Permitted	0.950									0.950	0.950	
Satd. Flow (perm)	3433	3539	0	0	6369	0	0	0	0	1681	1681	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7							413
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		409			805			936			1390	
Travel Time (s)		6.2			12.2			21.3			31.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	462	1032	0	0	1258	48	0	0	0	532	0	816
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	462	1032	0	0	1306	0	0	0	0	266	266	816
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			20			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2					1	1	0
Detector Template										Left		
Leading Detector (ft)	45	162			162					20	45	0
Trailing Detector (ft)	0	156			156					0	0	0
Detector 1 Position(ft)	0	-6			-6					0	0	0
Detector 1 Size(ft)	45	51			51					20	45	20
Detector 1 Type	Cl+Ex	Call			Call					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA			NA					Perm	NA	Free
Protected Phases	1	1 2			2						4	
Permitted Phases										4		Free
Detector Phase	1	1 2			2					4	4	

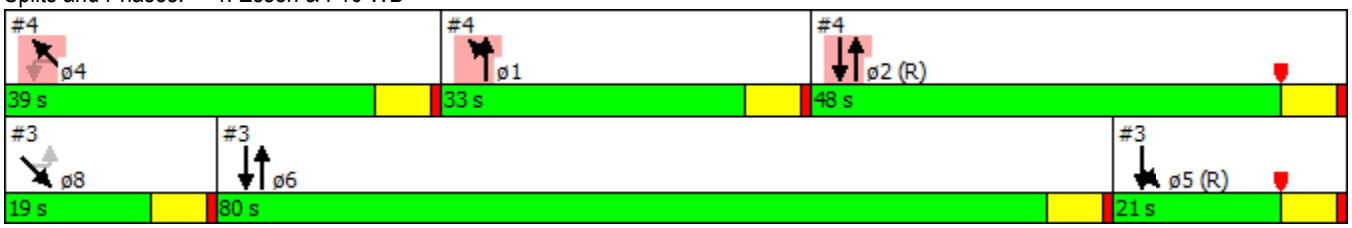
Lane Group	ø5	ø6	ø8
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	5	6	8
Permitted Phases			
Detector Phase			

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0				10.0					3.0	3.0	
Minimum Split (s)	9.0				16.0					9.0	9.0	
Total Split (s)	33.0				48.0					39.0	39.0	
Total Split (%)	27.5%				40.0%					32.5%	32.5%	
Maximum Green (s)	27.0				42.0					33.0	33.0	
Yellow Time (s)	5.0				5.0					5.0	5.0	
All-Red Time (s)	1.0				1.0					1.0	1.0	
Lost Time Adjust (s)	0.0				0.0					0.0	0.0	
Total Lost Time (s)	6.0				6.0					6.0	6.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?	Yes									Yes	Yes	
Vehicle Extension (s)	2.5				4.0					4.0	4.0	
Minimum Gap (s)	0.2				2.0					0.2	0.2	
Time Before Reduce (s)	0.0				10.0					0.0	0.0	
Time To Reduce (s)	0.0				20.0					0.0	0.0	
Recall Mode	None				C-Max					None	None	
Act Effct Green (s)	22.0	82.6			54.6					25.4	25.4	120.0
Actuated g/C Ratio	0.18	0.69			0.46					0.21	0.21	1.00
v/c Ratio	0.73	0.42			0.45					0.75	0.75	0.52
Control Delay	27.5	11.5			23.8					57.1	57.1	1.2
Queue Delay	0.0	0.4			0.0					0.3	0.3	0.0
Total Delay	27.5	11.9			23.8					57.4	57.4	1.2
LOS	C	B			C					E	E	A
Approach Delay		16.7			23.8						23.4	
Approach LOS		B			C						C	
Queue Length 50th (ft)	136	440			199					203	203	0
Queue Length 95th (ft)	156	356			238					283	283	0
Internal Link Dist (ft)		329			725			856			1310	
Turn Bay Length (ft)										750		
Base Capacity (vph)	772	2400			2902					462	462	1583
Starvation Cap Reductn	0	761			0					0	0	0
Spillback Cap Reductn	0	0			0					24	24	0
Storage Cap Reductn	0	0			0					0	0	0
Reduced v/c Ratio	0.60	0.63			0.45					0.61	0.61	0.52

Intersection Summary

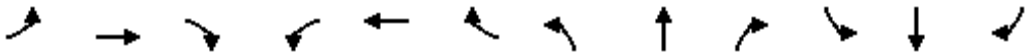
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 22 (18%), Referenced to phase 2:NBSB and 5:, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.02
Intersection Signal Delay: 21.1 Intersection LOS: C
Intersection Capacity Utilization 58.2% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 4: Essen & I-10 WB

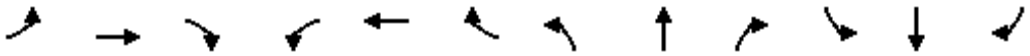


Lane Group	ø5	ø6	ø8
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	21.0	80.0	19.0
Total Split (%)	18%	67%	16%
Maximum Green (s)	15.0	74.0	13.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lead
Lead-Lag Optimize?		Yes	Yes
Vehicle Extension (s)	2.5	4.0	2.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	C-Max	None	Min
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary



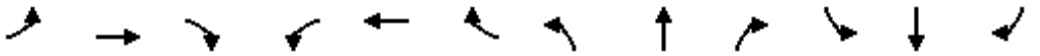
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	0	22	14	0	69	21	1571	52	209	2638	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	300		0	150		200	200		0
Storage Lanes	1		0	0		1	1		1	1		0
Taper Length (ft)	25			25			100			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Frt		0.850				0.850			0.850		0.996	
Flt Protected	0.950				0.950		0.950			0.950		
Satd. Flow (prot)	1770	1583	0	0	1770	1583	1770	5085	1583	1770	5065	0
Flt Permitted	0.748				0.742		0.950			0.950		
Satd. Flow (perm)	1393	1583	0	0	1382	1583	1770	5085	1583	1770	5065	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		136							136		7	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		534			896			896			200	
Travel Time (s)		12.1			20.4			13.6			3.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	0	24	15	0	75	23	1708	57	227	2867	77
Shared Lane Traffic (%)												
Lane Group Flow (vph)	20	24	0	0	15	75	23	1708	57	227	2944	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left		Right			Right			
Leading Detector (ft)	45	45		20	45	20	45	162	20	45	162	
Trailing Detector (ft)	0	0		0	0	0	0	156	0	0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6	0	0	-6	
Detector 1 Size(ft)	45	45		20	45	20	45	51	20	45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA	pt+ov	Prot	NA	Perm	Prot	NA	
Protected Phases		8			4	4 5	1	6		5	2	
Permitted Phases	8			4					6			
Detector Phase	8	8		4	4	4 5	1	6	6	5	2	



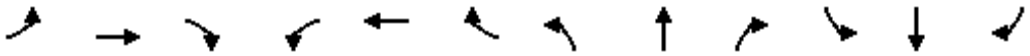
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	15.0	15.0	3.0	15.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	21.0	21.0	11.0	21.0	
Total Split (s)	21.0	21.0		21.0	21.0		11.0	67.0	67.0	32.0	88.0	
Total Split (%)	17.5%	17.5%		17.5%	17.5%		9.2%	55.8%	55.8%	26.7%	73.3%	
Maximum Green (s)	15.0	15.0		15.0	15.0		5.0	61.0	61.0	26.0	82.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0	6.0	6.0	6.0	
Lead/Lag							Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.5	2.5	2.0	2.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0	2.0	0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0	10.0	0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0	20.0	0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min	C-Min	None	Min	
Act Effct Green (s)	8.2	8.2			8.3	31.6	4.9	76.4	76.4	19.6	96.6	
Actuated g/C Ratio	0.07	0.07			0.07	0.26	0.04	0.64	0.64	0.16	0.80	
v/c Ratio	0.21	0.10			0.16	0.18	0.32	0.53	0.05	0.79	0.72	
Control Delay	56.7	0.9			55.0	31.5	56.0	14.1	0.3	68.7	5.8	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.3	
Total Delay	56.7	0.9			55.0	31.5	56.0	14.1	0.3	68.7	6.0	
LOS	E	A			D	C	E	B	A	E	A	
Approach Delay		26.3			35.4			14.2			10.5	
Approach LOS		C			D			B			B	
Queue Length 50th (ft)	15	0			11	44	19	224	1	183	267	
Queue Length 95th (ft)	40	0			33	74	m31	175	m1	m239	189	
Internal Link Dist (ft)		454			816			816			120	
Turn Bay Length (ft)	200						150		200	200		
Base Capacity (vph)	174	316			172	494	73	3237	1057	383	4077	
Starvation Cap Reductn	0	0			0	0	0	0	0	0	119	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	423	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.11	0.08			0.09	0.15	0.32	0.53	0.05	0.59	0.81	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 88 (73%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 12.4		Intersection LOS: B	
Intersection Capacity Utilization 78.5%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Essen & Margaret Ann



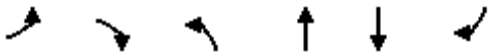
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	5	89	5	42	1	1535	106	174	2807	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	100		0	350		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			150		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.865				0.850		0.990			0.999	
Flt Protected					0.955		0.950			0.950		
Satd. Flow (prot)	0	1611	0	0	1779	1583	1770	5034	0	1770	5080	0
Flt Permitted					0.733		0.950			0.950		
Satd. Flow (perm)	0	1611	0	0	1365	1583	1770	5034	0	1770	5080	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		136						14			2	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		496			1336			475			721	
Travel Time (s)		11.3			30.4			7.2			10.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	5	97	5	46	1	1668	115	189	3051	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	5	0	0	102	46	1	1783	0	189	3075	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45	45	45	144		45	162	
Trailing Detector (ft)	0	0		0	0	0	0	138		0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	20	45		20	45	45	45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								138			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type		NA		Perm	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases		8			4	4 5	1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4	4 5	1	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		4.0	15.0		3.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	21.0		9.0	21.0	
Total Split (s)	22.0	22.0		22.0	22.0		11.0	69.0		29.0	87.0	
Total Split (%)	18.3%	18.3%		18.3%	18.3%		9.2%	57.5%		24.2%	72.5%	
Maximum Green (s)	16.0	16.0		16.0	16.0		5.0	63.0		23.0	81.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		3.0	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)		12.6			12.6	35.6	5.4	72.4		17.0	93.2	
Actuated g/C Ratio		0.10			0.10	0.30	0.04	0.60		0.14	0.78	
v/c Ratio		0.02			0.71	0.10	0.01	0.59		0.76	0.78	
Control Delay		0.2			77.6	27.8	46.0	8.7		62.5	6.7	
Queue Delay		0.0			0.0	0.0	0.0	0.1		0.0	0.6	
Total Delay		0.2			77.6	27.8	46.0	8.8		62.5	7.3	
LOS		A			E	C	D	A		E	A	
Approach Delay		0.2			62.1			8.8			10.5	
Approach LOS		A			E			A			B	
Queue Length 50th (ft)		0			77	26	1	264		132	106	
Queue Length 95th (ft)		0			136	49	m2	204		m158	m563	
Internal Link Dist (ft)		416			1256			395			641	
Turn Bay Length (ft)						100	100			350		
Base Capacity (vph)		332			182	522	80	3042		339	3945	
Starvation Cap Reductn		0			0	0	0	235		0	436	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.02			0.56	0.09	0.01	0.64		0.56	0.88	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 101 (84%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 11.4		Intersection LOS: B	
Intersection Capacity Utilization 84.9%		ICU Level of Service E	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 9: Essen & Essen Park



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	38	17	1641	2880	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	50			0
Storage Lanes	0	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91
Frt		0.865			0.999	
Flt Protected			0.950			
Satd. Flow (prot)	0	1611	1770	5085	5080	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	1611	1770	5085	5080	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	420			200	475	
Travel Time (s)	9.5			3.0	7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	41	18	1784	3130	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	41	18	1784	3153	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 66.1%		ICU Level of Service C	
Analysis Period (min) 15			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	176	176	1530	674	338	1026
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		0	150	
Storage Lanes	2	1		0	1	
Taper Length (ft)	25				100	
Lane Util. Factor	0.97	1.00	0.91	0.91	1.00	0.95
Frt		0.850	0.954			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	4851	0	1770	3539
Flt Permitted	0.950				0.056	
Satd. Flow (perm)	3433	1583	4851	0	104	3539
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			120			
Link Speed (mph)	30		45			45
Link Distance (ft)	1306		805			993
Travel Time (s)	29.7		12.2			15.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	191	191	1663	733	367	1115
Shared Lane Traffic (%)						
Lane Group Flow (vph)	191	191	2396	0	367	1115
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	52		20			25
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2		1	2
Detector Template						
Leading Detector (ft)	45	45	162		45	162
Trailing Detector (ft)	0	0	156		0	156
Detector 1 Position(ft)	0	0	-6		0	-6
Detector 1 Size(ft)	45	45	51		45	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			156			156
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm	pt+ov	NA		pm+pt	NA
Protected Phases		5 8	6		5	2
Permitted Phases	8				2	
Detector Phase	8	5 8	6		5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	4.0		15.0		5.0	15.0
Minimum Split (s)	20.0		21.0		11.0	21.0
Total Split (s)	20.0		60.0		40.0	100.0
Total Split (%)	16.7%		50.0%		33.3%	83.3%
Maximum Green (s)	16.0		54.0		34.0	94.0
Yellow Time (s)	3.5		5.0		5.0	5.0
All-Red Time (s)	0.5		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.0		6.0		6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		5.0		2.0	5.0
Minimum Gap (s)	3.0		3.0		0.2	3.0
Time Before Reduce (s)	0.0		15.0		0.0	15.0
Time To Reduce (s)	0.0		15.0		0.0	15.0
Recall Mode	None		C-Min		None	Min
Walk Time (s)	5.0					
Flash Dont Walk (s)	11.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	14.8	42.7	65.3		95.2	95.2
Actuated g/C Ratio	0.12	0.36	0.54		0.79	0.79
v/c Ratio	0.45	0.34	0.89		0.89	0.40
Control Delay	52.2	28.4	22.0		61.7	5.5
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	52.2	28.4	22.0		61.7	5.5
LOS	D	C	C		E	A
Approach Delay	40.3		22.0			19.4
Approach LOS	D		C			B
Queue Length 50th (ft)	71	106	654		239	153
Queue Length 95th (ft)	108	146	#832		361	188
Internal Link Dist (ft)	1226		725			913
Turn Bay Length (ft)		100			150	
Base Capacity (vph)	457	680	2695		554	2808
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.42	0.28	0.89		0.66	0.40

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 13 (11%), Referenced to phase 6:NBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 22.7	Intersection LOS: C
Intersection Capacity Utilization 81.7%	ICU Level of Service D

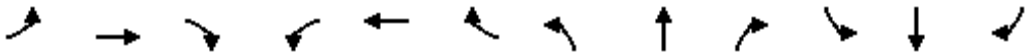
Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 17: Essen & United Plaza South

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	310	30	20	62	121	197	105	1138	59	211	1303	1161
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	425		50	280		280	150		0	550		300
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	100			200			25			100		
Lane Util. Factor	0.91	0.91	1.00	0.95	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Frt			0.850			0.850		0.993				0.850
Flt Protected	0.950	0.965		0.950	0.997		0.950			0.950		
Satd. Flow (prot)	3221	1636	1583	1681	1764	1583	1770	5050	0	1770	5085	1583
Flt Permitted	0.950	0.965		0.950	0.997		0.950			0.950		
Satd. Flow (perm)	3221	1636	1583	1681	1764	1583	1770	5050	0	1770	5085	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								7				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1908			1396			1335			896	
Travel Time (s)		43.4			31.7			20.2			13.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	337	33	22	67	132	214	114	1237	64	229	1416	1262
Shared Lane Traffic (%)	27%			10%								
Lane Group Flow (vph)	246	124	22	60	139	214	114	1301	0	229	1416	1262
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		45			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	0	1	1	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	0	45	45	45	45	162		45	162	0
Trailing Detector (ft)	0	0	0	0	0	0	0	156		0	156	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	-6		0	-6	-6
Detector 1 Size(ft)	45	45	20	45	45	45	45	51		45	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Call
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4	4 5	1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4	4 5	1	6		5	2	2 8

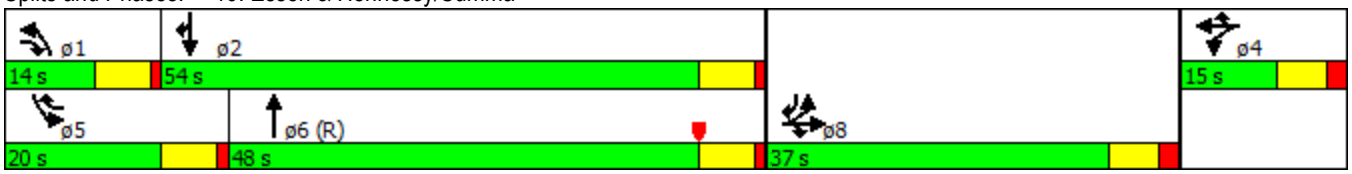


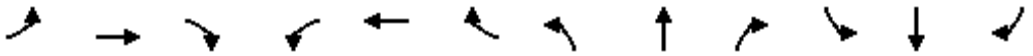
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.5	14.5		14.5	14.5		9.0	21.0		9.0	21.0	
Total Split (s)	37.0	37.0		15.0	15.0		14.0	48.0		20.0	54.0	
Total Split (%)	30.8%	30.8%		12.5%	12.5%		11.7%	40.0%		16.7%	45.0%	
Maximum Green (s)	30.5	30.5		8.5	8.5		8.0	42.0		14.0	48.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	30.5	30.5	38.0	8.5	8.5	28.5	8.0	42.0		14.0	48.0	85.0
Actuated g/C Ratio	0.25	0.25	0.32	0.07	0.07	0.24	0.07	0.35		0.12	0.40	0.71
v/c Ratio	0.30	0.30	0.04	0.50	1.12	0.57	0.97	0.73		1.11	0.70	1.13
Control Delay	37.4	38.5	17.8	68.9	167.4	47.3	145.2	26.8		135.3	25.8	91.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.5
Total Delay	37.4	38.5	17.8	68.9	167.4	47.3	145.2	26.8		135.3	25.8	91.7
LOS	D	D	B	E	F	D	F	C		F	C	F
Approach Delay		36.6			90.8			36.3			63.0	
Approach LOS		D			F			D			E	
Queue Length 50th (ft)	85	85	8	48	~129	147	95	326		~200	347	~1161
Queue Length 95th (ft)	124	147	23	96	#269	230	#214	383		m#344	310	#1440
Internal Link Dist (ft)		1828			1316			1255			816	
Turn Bay Length (ft)	425		50	280		280	150			550		300
Base Capacity (vph)	818	415	501	119	124	375	118	1772		206	2034	1121
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	122
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.30	0.30	0.04	0.50	1.12	0.57	0.97	0.73		1.11	0.70	1.26

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 67 (56%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.13			
Intersection Signal Delay: 55.9		Intersection LOS: E	
Intersection Capacity Utilization 99.8%		ICU Level of Service F	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

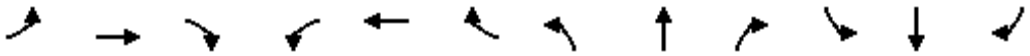
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Essen & Hennessy/Summa





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	46	65	52	189	24	192	1209	92	71	1056	256
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	150		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.912			0.983			0.989			0.971	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1699	0	1770	1831	0	1770	5029	0	1770	4938	0
Flt Permitted	0.308			0.602			0.950			0.950		
Satd. Flow (perm)	574	1699	0	1121	1831	0	1770	5029	0	1770	4938	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		56			5			16			60	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1062			1416			1475			1335	
Travel Time (s)		24.1			32.2			22.3			20.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	50	71	57	205	26	209	1314	100	77	1148	278
Shared Lane Traffic (%)												
Lane Group Flow (vph)	76	121	0	57	231	0	209	1414	0	77	1426	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template												
Leading Detector (ft)	45	45		45	45		45	162		45	162	
Trailing Detector (ft)	0	0		0	0		0	156		0	156	
Detector 1 Position(ft)	0	0		0	0		0	-6		0	-6	
Detector 1 Size(ft)	45	45		45	45		45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4		1	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		2.0	15.0		3.0	15.0	
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	21.0		9.0	21.0	
Total Split (s)	33.0	33.0		33.0	33.0		29.0	73.0		14.0	58.0	
Total Split (%)	27.5%	27.5%		27.5%	27.5%		24.2%	60.8%		11.7%	48.3%	
Maximum Green (s)	28.0	28.0		28.0	28.0		23.0	67.0		8.0	52.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Act Effct Green (s)	19.6	19.6		19.6	19.6		18.4	78.2		7.7	65.0	
Actuated g/C Ratio	0.16	0.16		0.16	0.16		0.15	0.65		0.06	0.54	
v/c Ratio	0.82	0.37		0.31	0.76		0.77	0.43		0.68	0.53	
Control Delay	100.1	26.5		46.9	62.5		67.4	11.7		50.4	1.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	100.1	26.5		46.9	62.5		67.4	11.7		50.4	1.8	
LOS	F	C		D	E		E	B		D	A	
Approach Delay		54.9			59.4			18.9			4.3	
Approach LOS		D			E			B			A	
Queue Length 50th (ft)	57	44		39	169		157	191		61	20	
Queue Length 95th (ft)	#124	95		76	242		233	263		m87	16	
Internal Link Dist (ft)		982			1336			1395			1255	
Turn Bay Length (ft)	225			150			150			150		
Base Capacity (vph)	133	439		261	431		339	3280		118	2702	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.57	0.28		0.22	0.54		0.62	0.43		0.65	0.53	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 70 (58%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 18.0		Intersection LOS: B	
Intersection Capacity Utilization 70.4%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Essen & Picardy

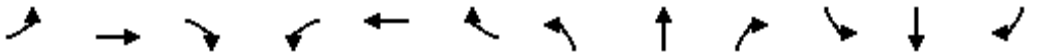
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	24	28	1828	184	363	1384
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	125		125	125	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.88	0.91	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2787	5085	1583	1770	3539
Flt Permitted	0.950				0.053	
Satd. Flow (perm)	1770	2787	5085	1583	99	3539
Right Turn on Red		Yes		No		
Satd. Flow (RTOR)		30				
Link Speed (mph)	30		45			45
Link Distance (ft)	1179		993			571
Travel Time (s)	26.8		15.0			8.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	30	1987	200	395	1504
Shared Lane Traffic (%)						
Lane Group Flow (vph)	26	30	1987	200	395	1504
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	42		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template						
Leading Detector (ft)	45	45	290	45	45	290
Trailing Detector (ft)	-6	-6	284	-6	-6	284
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			284			284
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	pt+ov	pm+pt	NA
Protected Phases	4		6	6 4	5	2
Permitted Phases		4			2	
Detector Phase	4	4	6	6 4	5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	5.0	5.0	15.0		3.0	15.0
Minimum Split (s)	11.0	11.0	21.0		9.0	21.0
Total Split (s)	17.0	17.0	63.0		40.0	103.0
Total Split (%)	14.2%	14.2%	52.5%		33.3%	85.8%
Maximum Green (s)	11.0	11.0	57.0		34.0	97.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0
Recall Mode	None	None	C-Min		None	Min
Act Effct Green (s)	6.6	6.6	69.5	82.1	101.4	101.4
Actuated g/C Ratio	0.06	0.06	0.58	0.68	0.84	0.84
v/c Ratio	0.27	0.16	0.67	0.18	0.89	0.50
Control Delay	60.5	19.9	7.8	3.3	63.1	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	60.5	19.9	7.8	3.3	63.1	1.1
LOS	E	B	A	A	E	A
Approach Delay	38.8		7.4			14.0
Approach LOS	D		A			B
Queue Length 50th (ft)	20	0	105	18	242	43
Queue Length 95th (ft)	49	17	156	m25	311	0
Internal Link Dist (ft)	1099		913			491
Turn Bay Length (ft)		125		125	125	
Base Capacity (vph)	162	282	2944	1140	561	2989
Starvation Cap Reductn	0	0	0	0	0	401
Spillback Cap Reductn	0	0	72	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.11	0.69	0.18	0.70	0.58

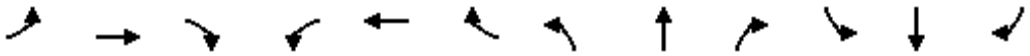
Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 27 (23%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 10.9 Intersection LOS: B
Intersection Capacity Utilization 74.6% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 28: Essen & United Plaza North



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	2	20	27	0	31	16	1726	114	352	1700	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		100	175		0	150		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	0.95
Frt		0.862				0.850		0.991			0.998	
Flt Protected	0.950				0.950		0.950			0.950		
Satd. Flow (prot)	1770	1606	0	0	1770	1583	1770	5040	0	1770	3532	0
Flt Permitted	0.738				0.742		0.116			0.062		
Satd. Flow (perm)	1375	1606	0	0	1382	1583	216	5040	0	115	3532	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		22						11			2	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		757			843			571			472	
Travel Time (s)		17.2			19.2			8.7			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	2	22	29	0	34	17	1876	124	383	1848	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	24	0	0	29	34	17	2000	0	383	1870	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290		45	390	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284		-6	384	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6		-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51		51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			384	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		8		7	4	4 5	1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4	4 5	1	6		5	2	

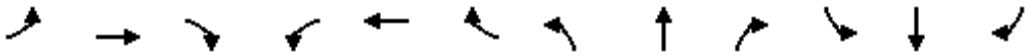


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	31.0		11.0	31.0	
Total Split (s)	14.0	14.0		11.0	25.0		11.0	60.0		35.0	84.0	
Total Split (%)	11.7%	11.7%		9.2%	20.8%		9.2%	50.0%		29.2%	70.0%	
Maximum Green (s)	8.0	8.0		5.0	19.0		5.0	54.0		29.0	78.0	
Yellow Time (s)	4.5	4.5		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		2.0	2.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lead		Lag			Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	3.0		0.2	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	7.8	7.8			7.8	35.9	72.1	72.1		93.6	94.8	
Actuated g/C Ratio	0.06	0.06			0.06	0.30	0.60	0.60		0.78	0.79	
v/c Ratio	0.50	0.19			0.32	0.07	0.07	0.66		0.90	0.67	
Control Delay	72.6	24.8			62.3	24.5	1.4	3.6		58.0	4.8	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.6	0.3	
Total Delay	72.6	24.8			62.3	24.5	1.4	3.7		58.6	5.1	
LOS	E	C			E	C	A	A		E	A	
Approach Delay		56.0			41.9			3.6			14.2	
Approach LOS		E			D			A			B	
Queue Length 50th (ft)	34	1			22	18	0	16		248	68	
Queue Length 95th (ft)	73	29			53	36	m0	6		m250	224	
Internal Link Dist (ft)		677			763			491			392	
Turn Bay Length (ft)	75					100	175			150		
Base Capacity (vph)	99	136			218	556	251	3032		510	2806	
Starvation Cap Reductn	0	0			0	0	0	47		17	350	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.45	0.18			0.13	0.06	0.07	0.67		0.78	0.76	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 28 (23%), Referenced to phase 2:SBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 10.4		Intersection LOS: B	
Intersection Capacity Utilization 79.3%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 29: Essen & Sholar/Archives

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	366	0	287	0	0	0	0	1217	581	0	1786	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.867							0.850			
Flt Protected	0.950	0.994										
Satd. Flow (prot)	1681	1525	0	0	0	0	0	3539	1583	0	3539	0
Flt Permitted	0.950	0.994										
Satd. Flow (perm)	1681	1525	0	0	0	0	0	3539	1583	0	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36							300			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		995			508			472			1384	
Travel Time (s)		22.6			11.5			7.2			21.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	398	0	312	0	0	0	0	1323	632	0	1941	0
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	358	352	0	0	0	0	0	1323	632	0	1941	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1						2	1		2	
Detector Template												
Leading Detector (ft)	45	45						290	45		290	
Trailing Detector (ft)	-6	-6						284	-6		284	
Detector 1 Position(ft)	-6	-6						-6	-6		-6	
Detector 1 Size(ft)	51	51						51	51		51	
Detector 1 Type	Cl+Ex	Cl+Ex						Call	Cl+Ex		Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0		0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA						NA	Free		NA	
Protected Phases		8						6			2	
Permitted Phases	8								Free			
Detector Phase	8	8						6			2	

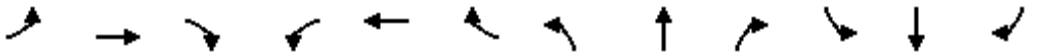


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	10.0	10.0						25.0			25.0	
Minimum Split (s)	17.0	17.0						32.0			32.0	
Total Split (s)	40.0	40.0						80.0			80.0	
Total Split (%)	33.3%	33.3%						66.7%			66.7%	
Maximum Green (s)	33.0	33.0						73.0			73.0	
Yellow Time (s)	5.0	5.0						5.0			5.0	
All-Red Time (s)	2.0	2.0						2.0			2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	7.0	7.0						7.0			7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5						5.0			5.0	
Minimum Gap (s)	0.2	0.2						3.0			3.0	
Time Before Reduce (s)	0.0	0.0						15.0			15.0	
Time To Reduce (s)	0.0	0.0						15.0			15.0	
Recall Mode	None	None						C-Max			Max	
Act Effct Green (s)	29.3	29.3						76.7	120.0		76.7	
Actuated g/C Ratio	0.24	0.24						0.64	1.00		0.64	
v/c Ratio	0.87	0.88						0.59	0.40		0.86	
Control Delay	65.1	62.3						12.0	1.1		23.2	
Queue Delay	0.0	0.0						0.2	0.0		0.2	
Total Delay	65.1	62.3						12.1	1.1		23.5	
LOS	E	E						B	A		C	
Approach Delay		63.7						8.5			23.5	
Approach LOS		E						A			C	
Queue Length 50th (ft)	273	245						143	0		624	
Queue Length 95th (ft)	#413	#395						308	0		777	
Internal Link Dist (ft)		915			428			392			1304	
Turn Bay Length (ft)	400											
Base Capacity (vph)	462	445						2261	1583		2261	
Starvation Cap Reductn	0	0						224	0		0	
Spillback Cap Reductn	0	0						0	0		41	
Storage Cap Reductn	0	0						0	0		0	
Reduced v/c Ratio	0.77	0.79						0.65	0.40		0.87	

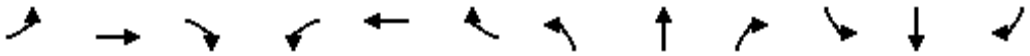
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 20 (17%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 23.3		Intersection LOS: C	
Intersection Capacity Utilization 80.0%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 32: Essen & I-12 EB

M.9 2017 NO BUILD AM – BLUEBONNET BOULEVARD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	135	684	37	325	776	139	208	1153	218	194	824	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		250	325		375	350		0	250		150
Storage Lanes	2		1	2		1	2		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Frt			0.850			0.850		0.976				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3454	0	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3454	0	3433	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								14				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		2445			3864			2201			709	
Travel Time (s)		37.0			58.5			33.3			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	142	720	39	342	817	146	219	1214	229	204	867	231
Shared Lane Traffic (%)												
Lane Group Flow (vph)	142	720	39	342	817	146	219	1443	0	204	867	231
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45	45	290		45	290	45
Trailing Detector (ft)	-6	284	-6	-6	284	-6	-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6	-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51	51	51		51	51	51
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		284			284			284			284	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Extend			Extend			Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8		7	4	4 5
Permitted Phases												
Detector Phase	5	2	2 3	1	6	6 7	3	8		7	4	4 5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	10.0		4.0	10.0	
Minimum Split (s)	11.0	34.5		11.0	37.5		11.0	41.0		11.0	41.0	
Total Split (s)	17.0	53.0		27.0	63.0		30.0	69.0		21.0	60.0	
Total Split (%)	10.0%	31.2%		15.9%	37.1%		17.6%	40.6%		12.4%	35.3%	
Maximum Green (s)	10.0	46.5		20.0	56.5		23.0	62.0		14.0	53.0	
Yellow Time (s)	5.0	4.5		5.0	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	6.5		7.0	6.5		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.3		3.0	4.3		3.0	3.9		3.0	3.9	
Minimum Gap (s)	0.2	2.2		0.2	2.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	15.0		0.0	15.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0		0.0	10.0		0.0	10.0	
Recall Mode	None	Min		None	Min		None	Min		None	C-Min	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		23.0			26.0			29.0			29.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	10.0	38.4	72.2	19.5	47.9	69.4	33.3	70.1		14.5	51.3	61.3
Actuated g/C Ratio	0.06	0.23	0.42	0.11	0.28	0.41	0.20	0.41		0.09	0.30	0.36
v/c Ratio	0.71	0.90	0.06	0.87	0.82	0.23	0.33	1.01		0.70	0.81	0.40
Control Delay	97.4	79.0	16.7	95.7	64.1	32.4	62.2	73.4		97.2	55.3	21.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.1	0.0
Total Delay	97.4	79.0	16.7	95.7	64.1	32.4	62.2	73.4		97.2	55.4	21.3
LOS	F	E	B	F	E	C	E	E		F	E	C
Approach Delay		79.2			68.9			71.9			55.9	
Approach LOS		E			E			E			E	
Queue Length 50th (ft)	81	415	16	195	449	104	109	~893		98	478	76
Queue Length 95th (ft)	#128	468	34	#275	498	148	164	#1120		170	396	152
Internal Link Dist (ft)		2365			3784			2121			629	
Turn Bay Length (ft)	440		250	325		375	350			250		150
Base Capacity (vph)	201	968	747	403	1176	636	672	1433		303	1105	587
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	6	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.71	0.74	0.05	0.85	0.69	0.23	0.33	1.01		0.67	0.79	0.39

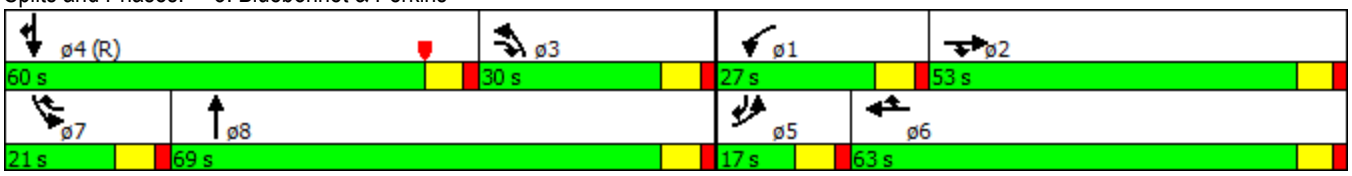
Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 25 (15%), Referenced to phase 4:SBT, Start of Yellow			
Natural Cycle: 135			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.01			
Intersection Signal Delay: 68.4		Intersection LOS: E	
Intersection Capacity Utilization 95.5%		ICU Level of Service F	

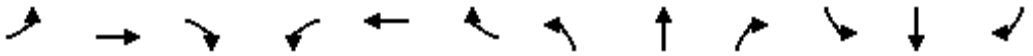
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

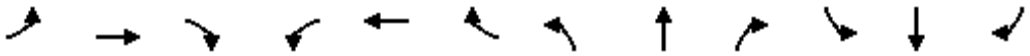
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Bluebonnet & Perkins





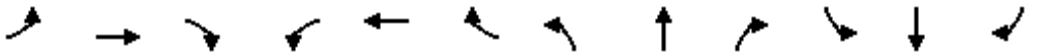
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	16	24	24	3	22	40	1316	71	339	1189	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		125	160		160	175		0
Storage Lanes	1		0	0		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.911				0.850			0.850		0.993	
Flt Protected	0.950				0.957		0.950			0.950		
Satd. Flow (prot)	1770	1697	0	0	1783	1583	1770	3539	1583	3433	3514	0
Flt Permitted	0.739				0.775		0.950			0.950		
Satd. Flow (perm)	1377	1697	0	0	1444	1583	1770	3539	1583	3433	3514	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		25									6	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		511			1048			709			2556	
Travel Time (s)		11.6			23.8			10.7			38.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	63	17	25	25	3	23	42	1385	75	357	1252	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	63	42	0	0	28	23	42	1385	75	357	1314	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290	45	45	290	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284	-6	-6	284	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6	-6	-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	
Protected Phases		8		7	4	4 5	1	6	6 7	5	2	
Permitted Phases	8			4								
Detector Phase	8	8		7	4	4 5	1	6	6 7	5	2	



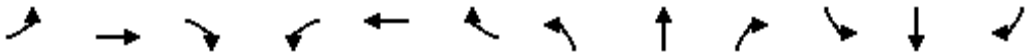
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		3.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	11.0	11.0		9.0	11.0		9.0	21.0		9.0	21.0	
Total Split (s)	22.0	22.0		11.0	33.0		20.0	102.0		35.0	117.0	
Total Split (%)	12.9%	12.9%		6.5%	19.4%		11.8%	60.0%		20.6%	68.8%	
Maximum Green (s)	16.0	16.0		5.0	27.0		14.0	96.0		29.0	111.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lead		Lag			Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		1.5	2.0		1.5	4.0		1.5	4.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	12.3	12.3			25.1	52.9	8.1	105.1	118.0	21.7	120.9	
Actuated g/C Ratio	0.07	0.07			0.15	0.31	0.05	0.62	0.69	0.13	0.71	
v/c Ratio	0.64	0.29			0.12	0.05	0.51	0.63	0.07	0.81	0.53	
Control Delay	102.8	41.1			61.3	36.9	89.8	23.2	12.8	86.9	13.7	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.5	0.0	0.0	0.0	
Total Delay	102.8	41.1			61.3	36.9	89.8	23.7	12.8	86.9	13.7	
LOS	F	D			E	D	F	C	B	F	B	
Approach Delay		78.1			50.3			25.0			29.3	
Approach LOS		E			D			C			C	
Queue Length 50th (ft)	70	18			28	18	49	451	39	202	344	
Queue Length 95th (ft)	122	60			57	37	m56	m213	m22	253	501	
Internal Link Dist (ft)		431			968			629			2476	
Turn Bay Length (ft)	100					125	160		160	175		
Base Capacity (vph)	132	186			256	514	145	2207	1096	585	2517	
Starvation Cap Reductn	0	0			0	0	0	389	0	0	0	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.48	0.23			0.11	0.04	0.29	0.76	0.07	0.61	0.52	

Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 85 (50%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 29.2		Intersection LOS: C	
Intersection Capacity Utilization 71.0%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Bluebonnet & Park Rowe



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	148	7	38	16	4	26	59	1333	6	58	1532	409
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	475		475	50		0	425		0	130		130
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.869			0.999				0.850
Flt Protected	0.950	0.956		0.950			0.950			0.950		
Satd. Flow (prot)	1681	1692	1583	1770	1619	0	1770	3536	0	1770	3539	1583
Flt Permitted	0.950	0.956		0.950			0.950			0.950		
Satd. Flow (perm)	1681	1692	1583	1770	1619	0	1770	3536	0	1770	3539	1583
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)					27			1				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1004			740			2556			469	
Travel Time (s)		22.8			16.8			38.7			7.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	156	7	40	17	4	27	62	1403	6	61	1613	431
Shared Lane Traffic (%)	48%											
Lane Group Flow (vph)	81	82	40	17	31	0	62	1409	0	61	1613	431
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	45	45	45		45	290		45	290	45
Trailing Detector (ft)	-6	-6	-6	-6	-6		-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6		-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51		51	51		51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA		Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4		1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4		1	6		5	2	2 8

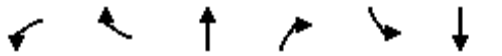


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.5	25.5		8.5	25.5	
Total Split (s)	15.0	15.0		13.0	13.0		12.0	72.0		15.0	75.0	
Total Split (%)	13.0%	13.0%		11.3%	11.3%		10.4%	62.6%		13.0%	65.2%	
Maximum Green (s)	10.0	10.0		8.0	8.0		6.5	66.5		9.5	69.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	6.0		3.0	6.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	10.2	10.2	22.5	7.9	7.9		6.8	70.4		12.9	76.5	89.5
Actuated g/C Ratio	0.09	0.09	0.20	0.07	0.07		0.06	0.61		0.11	0.67	0.78
v/c Ratio	0.54	0.55	0.13	0.14	0.23		0.59	0.65		0.31	0.69	0.35
Control Delay	64.5	64.5	39.7	53.1	24.9		75.7	18.2		33.3	8.2	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.1	0.0
Total Delay	64.5	64.5	39.7	53.1	24.9		75.7	18.2		33.3	8.3	2.8
LOS	E	E	D	D	C		E	B		C	A	A
Approach Delay		59.6			34.9			20.6			7.9	
Approach LOS		E			C			C			A	
Queue Length 50th (ft)	62	62	25	12	3		46	402		41	192	88
Queue Length 95th (ft)	#118	#120	56	36	34		#109	443		m68	191	35
Internal Link Dist (ft)		924			660			2476			389	
Turn Bay Length (ft)	475		475	50			425			130		130
Base Capacity (vph)	152	153	300	123	137		106	2224		210	2354	1220
Starvation Cap Reductn	0	0	0	0	0		0	0		0	104	0
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.53	0.54	0.13	0.14	0.23		0.58	0.63		0.29	0.72	0.35

Intersection Summary

Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 115
Offset: 69 (60%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 15.8 Intersection LOS: B
Intersection Capacity Utilization 68.7% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Bluebonnet & Anselmo



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Lane Configurations									
Volume (vph)	137	44	1434	72	53	1861			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	0	100		150	350				
Storage Lanes	2	1		1	1				
Taper Length (ft)	25				25				
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.91			
Frt		0.850		0.850					
Flt Protected	0.950				0.950				
Satd. Flow (prot)	3433	1583	3539	1583	1770	5085			
Flt Permitted	0.950				0.950				
Satd. Flow (perm)	3433	1583	3539	1583	1770	5085			
Right Turn on Red		No		No					
Satd. Flow (RTOR)									
Link Speed (mph)	30		45			45			
Link Distance (ft)	352		390			974			
Travel Time (s)	8.0		5.9			14.8			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95			
Adj. Flow (vph)	144	46	1509	76	56	1959			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	144	46	1509	76	56	1959			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Right	Left	Left			
Median Width(ft)	35		20			20			
Link Offset(ft)	0		0			0			
Crosswalk Width(ft)	16		16			16			
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Turning Speed (mph)	15	9		9	15				
Number of Detectors	1	1	2	1	1	2			
Detector Template									
Leading Detector (ft)	45	45	290	45	45	290			
Trailing Detector (ft)	-6	-6	284	-6	-6	284			
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			
Detector 1 Size(ft)	51	51	51	51	51	51			
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call			
Detector 1 Channel									
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)			284			284			
Detector 2 Size(ft)			6			6			
Detector 2 Type			Extend			Extend			
Detector 2 Channel									
Detector 2 Extend (s)			0.0			0.0			
Turn Type	Prot	pt+ov	NA	pt+ov	Prot	NA			
Protected Phases	4	4 3	1	1 4	3	2	5	7	8
Permitted Phases									
Detector Phase	4	4 3	1	1 4	3	2			

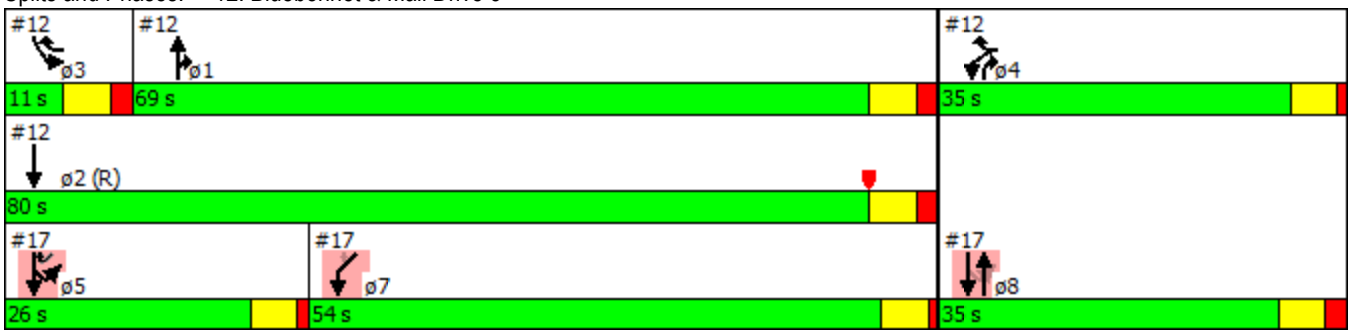
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Switch Phase									
Minimum Initial (s)	4.0		24.0		4.0	34.0	4.0	4.0	29.0
Minimum Split (s)	10.0		30.0		10.0	40.0	10.0	21.0	35.0
Total Split (s)	35.0		69.0		11.0	80.0	26.0	54.0	35.0
Total Split (%)	30.4%		60.0%		9.6%	69.6%	23%	47%	30%
Maximum Green (s)	30.0		63.0		5.0	74.0	21.0	49.0	29.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		2.0		2.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0			
Total Lost Time (s)	5.0		6.0		6.0	6.0			
Lead/Lag			Lag		Lead		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	
Vehicle Extension (s)	2.5		4.3		2.0	4.3	2.5	3.0	4.3
Minimum Gap (s)	0.2		2.2		0.2	2.2	0.2	3.0	2.2
Time Before Reduce (s)	0.0		20.0		0.0	30.0	0.0	0.0	30.0
Time To Reduce (s)	0.0		15.0		0.0	15.0	0.0	0.0	15.0
Recall Mode	None		Min		None	C-Min	None	None	Min
Walk Time (s)								5.0	
Flash Dont Walk (s)								11.0	
Pedestrian Calls (#/hr)								0	
Act Effct Green (s)	30.0	43.5	62.9	99.1	7.5	74.0			
Actuated g/C Ratio	0.26	0.38	0.55	0.86	0.07	0.64			
v/c Ratio	0.16	0.08	0.78	0.06	0.49	0.60			
Control Delay	18.0	11.2	11.0	0.5	65.6	10.6			
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay	18.0	11.2	11.0	0.5	65.6	10.6			
LOS	B	B	B	A	E	B			
Approach Delay	16.3		10.5			12.1			
Approach LOS	B		B			B			
Queue Length 50th (ft)	33	17	153	0	43	147			
Queue Length 95th (ft)	53	40	128	m4	m55	38			
Internal Link Dist (ft)	272		310			894			
Turn Bay Length (ft)		100		150	350				
Base Capacity (vph)	895	598	2006	1346	114	3272			
Starvation Cap Reductn	0	0	0	0	0	0			
Spillback Cap Reductn	0	0	0	0	0	0			
Storage Cap Reductn	0	0	0	0	0	0			
Reduced v/c Ratio	0.16	0.08	0.75	0.06	0.49	0.60			

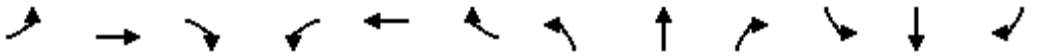
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 73 (63%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 11.6		Intersection LOS: B	
Intersection Capacity Utilization 57.1%		ICU Level of Service B	

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

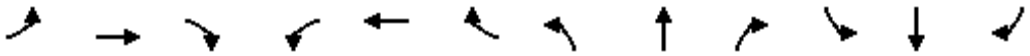
Splits and Phases: 12: Bluebonnet & Mall Drive 3





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	358	7	252	59	139	2	222	1252	4	41	1603	890
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	140		140	200		200	200		160
Storage Lanes	2		0	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		0.854				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3022	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3022	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		265										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1050			403			974			1065	
Travel Time (s)		23.9			9.2			14.8			16.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	377	7	265	62	146	2	234	1318	4	43	1687	937
Shared Lane Traffic (%)												
Lane Group Flow (vph)	377	272	0	62	146	2	234	1318	4	43	1687	937
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			36			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pt+ov
Protected Phases	3	2		9	8	8 6	1	10	10 9	6	5	5 3
Permitted Phases												
Detector Phase	3	2		9	8	8 6	1	10	10 9	6	5	5 3

Lane Group	ø11	ø12	ø13	ø14
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	11	12	13	14
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	21.0		3.0	21.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		11.0	27.0		11.0	27.0	
Total Split (s)	33.0	33.0		11.0	11.0		22.0	47.0		24.0	49.0	
Total Split (%)	28.7%	28.7%		9.6%	9.6%		19.1%	40.9%		20.9%	42.6%	
Maximum Green (s)	27.0	27.0		5.0	5.0		16.0	41.0		18.0	43.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.0		1.0	1.0		3.0	4.3		1.0	4.3	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	28.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	15.0	
Recall Mode	None	None		None	None		None	None		None	C-Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	27.0	27.0		4.8	5.0	44.8	16.6	38.3	49.1	41.8	42.4	75.4
Actuated g/C Ratio	0.23	0.23		0.04	0.04	0.39	0.14	0.33	0.43	0.36	0.37	0.66
v/c Ratio	0.47	0.30		0.44	0.95	0.00	0.91	0.78	0.01	0.03	0.90	0.90
Control Delay	40.1	5.6		59.1	112.4	45.5	64.0	24.0	1.0	62.4	27.1	23.8
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.1	5.6		59.1	112.4	45.5	64.0	24.0	1.0	62.4	27.1	23.8
LOS	D	A		E	F	D	E	C	A	E	C	C
Approach Delay		25.6			96.1			29.9			26.5	
Approach LOS		C			F			C			C	
Queue Length 50th (ft)	124	2		25	61	1	183	96	1	14	250	212
Queue Length 95th (ft)	172	36		49	#130	m7	m#285	42	m0	m26	401	#423
Internal Link Dist (ft)		970			323			894			985	
Turn Bay Length (ft)	150			140		140	200		200	200		160
Base Capacity (vph)	806	912		149	153	718	256	2136	756	1467	1901	1046
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.30		0.42	0.95	0.00	0.91	0.62	0.01	0.03	0.89	0.90

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 57 (50%), Referenced to phase 5:SBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 30.3		Intersection LOS: C	
Intersection Capacity Utilization 86.2%		ICU Level of Service E	

Lane Group	ø11	ø12	ø13	ø14
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	3.0
Minimum Split (s)	10.0	20.0	8.0	9.0
Total Split (s)	11.0	34.0	33.0	37.0
Total Split (%)	10%	30%	29%	32%
Maximum Green (s)	5.0	30.0	29.0	31.0
Yellow Time (s)	4.0	3.5	3.5	4.0
All-Red Time (s)	2.0	0.5	0.5	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	1.0
Minimum Gap (s)	3.0	3.0	3.0	0.2
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Walk Time (s)		5.0		
Flash Dont Walk (s)		11.0		
Pedestrian Calls (#/hr)		0		
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

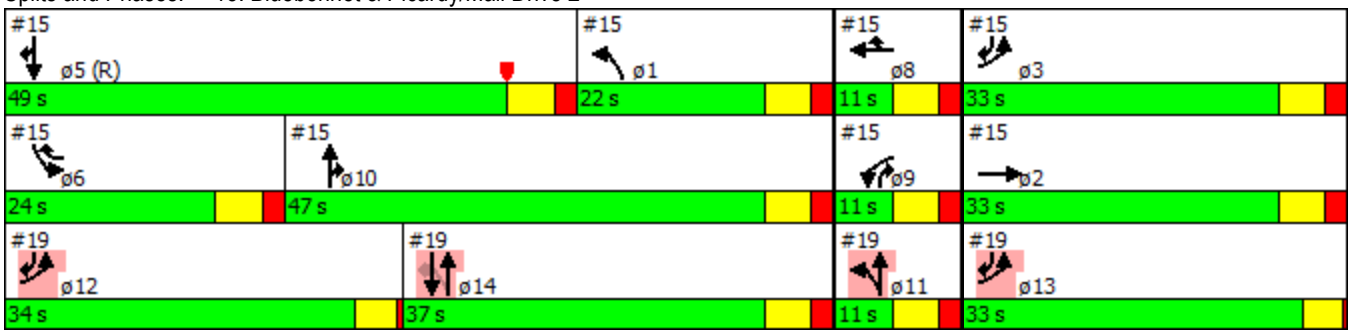
Intersection Summary

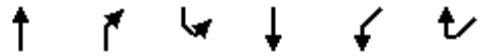
Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

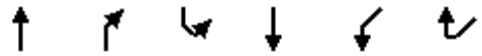
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 15: Bluebonnet & Picardy/Mall Drive 2





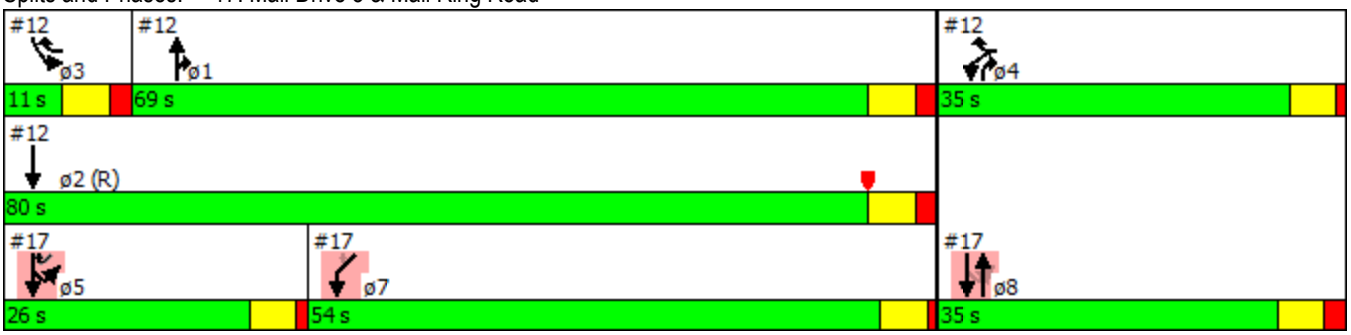
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Lane Configurations										
Volume (vph)	104	97	63	62	80	77				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00				
Frt	0.928					0.850				
Flt Protected			0.950		0.950					
Satd. Flow (prot)	3284	0	1770	1863	1770	1583				
Flt Permitted			0.615		0.950					
Satd. Flow (perm)	3284	0	1146	1863	1770	1583				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)	105					84				
Link Speed (mph)	30			30	30					
Link Distance (ft)	797			352	1050					
Travel Time (s)	18.1			8.0	23.9					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Adj. Flow (vph)	113	105	68	67	87	84				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	218	0	68	67	87	84				
Enter Blocked Intersection	No	No	No	No	No	No				
Lane Alignment	Left	Right	Left	Left	Left	Right				
Median Width(ft)	0			12	12					
Link Offset(ft)	0			0	0					
Crosswalk Width(ft)	16			16	16					
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)		9	15		15	9				
Number of Detectors	2		1	2	1	1				
Detector Template	Thru		Left	Thru	Left	Right				
Leading Detector (ft)	100		20	100	20	20				
Trailing Detector (ft)	0		0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0				
Detector 1 Size(ft)	6		20	6	20	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel										
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0				
Detector 2 Position(ft)	94			94						
Detector 2 Size(ft)	6			6						
Detector 2 Type	Cl+Ex			Cl+Ex						
Detector 2 Channel										
Detector 2 Extend (s)	0.0			0.0						
Turn Type	NA		D.P+P	NA	Prot	pm+ov				
Protected Phases	8		5	5 8	7	5	1	2	3	4
Permitted Phases			8			7				
Detector Phase	8		5	5 8	7	5				
Switch Phase										
Minimum Initial (s)	29.0		4.0		4.0	4.0	24.0	34.0	4.0	4.0
Minimum Split (s)	35.0		10.0		21.0	10.0	30.0	40.0	10.0	10.0

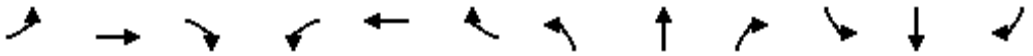


Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Total Split (s)	35.0		26.0		54.0	26.0	69.0	80.0	11.0	35.0
Total Split (%)	30.4%		22.6%		47.0%	22.6%	60%	70%	10%	30%
Maximum Green (s)	29.0		21.0		49.0	21.0	63.0	74.0	5.0	30.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		1.0		1.0	1.0	2.0	2.0	2.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0				
Total Lost Time (s)	6.0		5.0		5.0	5.0				
Lead/Lag			Lead		Lag	Lead	Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	Yes				
Vehicle Extension (s)	4.3		2.5		3.0	2.5	4.3	4.3	2.0	2.5
Minimum Gap (s)	2.2		0.2		3.0	0.2	2.2	2.2	0.2	0.2
Time Before Reduce (s)	30.0		0.0		0.0	0.0	20.0	30.0	0.0	0.0
Time To Reduce (s)	15.0		0.0		0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	Min		None		None	None	Min	C-Min	None	None
Walk Time (s)					5.0					
Flash Dont Walk (s)					11.0					
Pedestrian Calls (#/hr)					0					
Act Effct Green (s)	29.0		35.5	40.5	64.5	75.0				
Actuated g/C Ratio	0.25		0.31	0.35	0.56	0.65				
v/c Ratio	0.24		0.18	0.10	0.09	0.08				
Control Delay	18.2		50.4	48.3	1.4	0.1				
Queue Delay	0.0		0.0	0.0	0.0	0.0				
Total Delay	18.2		50.4	48.3	1.4	0.1				
LOS	B		D	D	A	A				
Approach Delay	18.2			49.3	0.8					
Approach LOS	B			D	A					
Queue Length 50th (ft)	34		49	48	3	0				
Queue Length 95th (ft)	66		99	97	2	0				
Internal Link Dist (ft)	717			272	970					
Turn Bay Length (ft)										
Base Capacity (vph)	906		622	907	991	1061				
Starvation Cap Reductn	0		0	0	0	0				
Spillback Cap Reductn	0		0	0	0	0				
Storage Cap Reductn	0		0	0	0	0				
Reduced v/c Ratio	0.24		0.11	0.07	0.09	0.08				

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 73 (63%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 20.5		Intersection LOS: C	
Intersection Capacity Utilization 45.4%		ICU Level of Service A	
Analysis Period (min) 15			

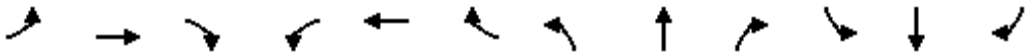
Splits and Phases: 17: Mall Drive 3 & Mall Ring Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1600	12	31	2511	4	0	0	46	28	0	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		200	300		100	0		0	65		0
Storage Lanes	1		1	2		1	0		2	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.850	
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	5085	1583	3433	5085	1583	0	0	2787	1770	1583	0
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	1863	5085	1583	3433	5085	1583	0	0	2787	1770	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			85			28			317		237	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1065			834			318			371	
Travel Time (s)		16.1			12.6			7.2			8.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1684	13	33	2643	4	0	0	48	29	0	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1684	13	33	2643	4	0	0	48	29	25	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1			1	1	1	
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45			45	45	45	
Trailing Detector (ft)	-6	284	-6	-6	284	-6			-6	-6	-6	
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			-6	-6	-6	
Detector 1 Size(ft)	51	51	51	51	51	51			51	51	51	
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA	Perm	Prot	NA	custom			Over	Perm	NA	
Protected Phases	1	7		5	4	2			5		2	
Permitted Phases			7			4				2		
Detector Phase	1	7	7	5	4	2			5	2	2	

Lane Group	ø8	ø9	ø10	ø11
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	8	9	10	11
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	14.0	4.0	14.0	4.0			4.0	4.0	4.0	
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	10.0			10.0	10.0	10.0	
Total Split (s)	11.0	83.0	83.0	12.0	84.0	20.0			12.0	20.0	20.0	
Total Split (%)	9.6%	72.2%	72.2%	10.4%	73.0%	17.4%			10.4%	17.4%	17.4%	
Maximum Green (s)	5.0	77.0	77.0	6.0	78.0	14.0			6.0	14.0	14.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0			6.0	6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	4.3	4.3	2.5	4.3	2.0			2.5	2.0	2.0	
Minimum Gap (s)	0.2	2.2	2.2	0.2	2.2	0.2			0.2	0.2	0.2	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	34.0	0.0			0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	15.0	0.0			0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Min	None			None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		89.6	89.6	6.3	99.7	115.0			6.3	6.6	6.6	
Actuated g/C Ratio		0.78	0.78	0.05	0.87	1.00			0.05	0.06	0.06	
v/c Ratio		0.42	0.01	0.18	0.60	0.00			0.11	0.28	0.08	
Control Delay		7.0	0.0	59.8	7.1	0.0			1.3	58.3	0.5	
Queue Delay		0.0	0.0	0.0	0.4	0.0			0.0	0.0	0.0	
Total Delay		7.0	0.0	59.8	7.4	0.0			1.3	58.3	0.5	
LOS		A	A	E	A	A			A	E	A	
Approach Delay		6.9			8.0						31.5	
Approach LOS		A			A						C	
Queue Length 50th (ft)		53	0	11	609	0			0	21	0	
Queue Length 95th (ft)		147	m0	m13	692	m0			0	51	0	
Internal Link Dist (ft)		985			754			238			291	
Turn Bay Length (ft)			200	300		100				65		
Base Capacity (vph)		3963	1252	194	4408	1580			457	215	400	
Starvation Cap Reductn		0	0	0	988	0			0	0	0	
Spillback Cap Reductn		0	0	0	0	0			0	0	0	
Storage Cap Reductn		0	0	0	0	0			0	0	0	
Reduced v/c Ratio		0.42	0.01	0.17	0.77	0.00			0.11	0.13	0.06	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 97 (84%), Referenced to phase 4:WBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 7.8		Intersection LOS: A	
Intersection Capacity Utilization 61.8%		ICU Level of Service B	

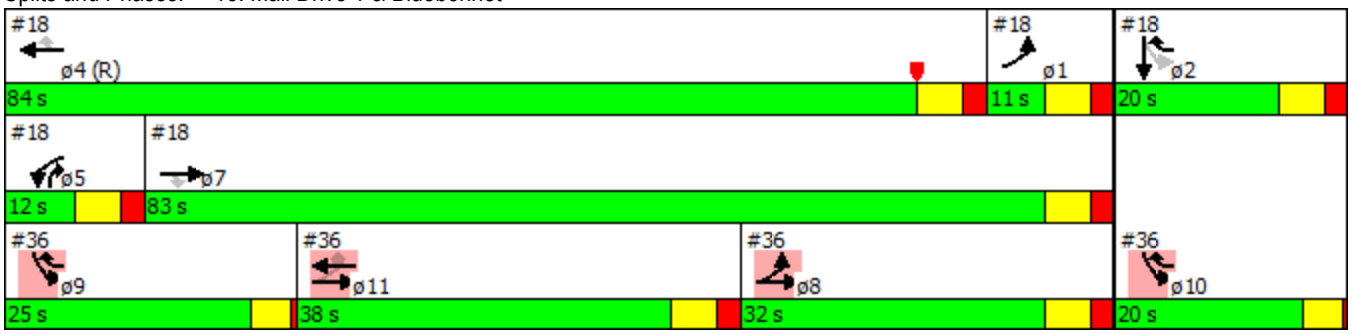
Lane Group	ø8	ø9	ø10	ø11
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	14.0
Minimum Split (s)	22.0	8.0	20.0	20.0
Total Split (s)	32.0	25.0	20.0	38.0
Total Split (%)	28%	22%	17%	33%
Maximum Green (s)	26.0	21.0	16.0	32.0
Yellow Time (s)	4.0	3.5	3.5	4.0
All-Red Time (s)	2.0	0.5	0.5	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	4.3
Minimum Gap (s)	3.0	3.0	3.0	2.2
Time Before Reduce (s)	0.0	0.0	0.0	34.0
Time To Reduce (s)	0.0	0.0	0.0	15.0
Recall Mode	None	None	None	Min
Walk Time (s)	5.0		5.0	
Flash Dont Walk (s)	11.0		11.0	
Pedestrian Calls (#/hr)	0		0	
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

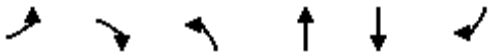
Intersection Summary

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

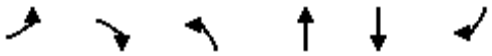
Splits and Phases: 18: Mall Drive 1 & Bluebonnet





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Lane Configurations												
Volume (vph)	32	20	138	22	137	61						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Frt		0.850				0.850						
Flt Protected	0.950		0.950									
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583						
Flt Permitted	0.950		0.662									
Satd. Flow (perm)	1770	1583	1233	1863	1863	1583						
Right Turn on Red		Yes				Yes						
Satd. Flow (RTOR)		22				66						
Link Speed (mph)	30			30	30							
Link Distance (ft)	403			1050	819							
Travel Time (s)	9.2			23.9	18.6							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	35	22	150	24	149	66						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	35	22	150	24	149	66						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Right	Left	Left	Left	Right						
Median Width(ft)	36			12	0							
Link Offset(ft)	0			0	0							
Crosswalk Width(ft)	16			16	16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15	9	15			9						
Number of Detectors	1	1	1	2	2	1						
Detector Template	Left	Right	Left	Thru	Thru	Right						
Leading Detector (ft)	20	20	20	100	100	20						
Trailing Detector (ft)	0	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0	0						
Detector 1 Size(ft)	20	20	20	6	6	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)				94	94							
Detector 2 Size(ft)				6	6							
Detector 2 Type				Cl+Ex	Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)				0.0	0.0							
Turn Type	Prot	Free	D.P+P	NA	NA	pm+ov						
Protected Phases	12 13		11	11 14	14	12 13	1	2	3	5	6	8
Permitted Phases		Free	14			14						
Detector Phase	12 13		11	11 14	14	12 13						
Switch Phase												
Minimum Initial (s)			4.0		3.0		3.0	3.0	3.0	21.0	3.0	3.0
Minimum Split (s)			10.0		9.0		11.0	9.0	9.0	27.0	11.0	9.0

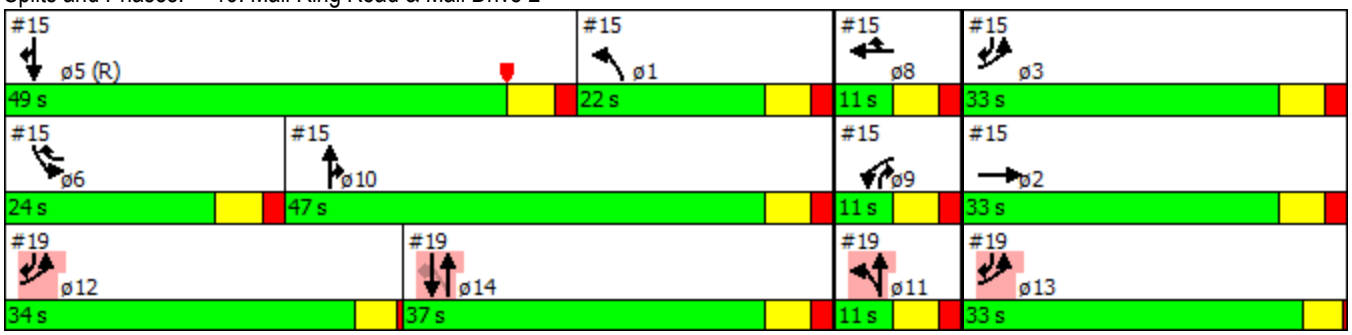
Lane Group	ø9	ø10	ø12	ø13
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	9	10	12	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	21.0	4.0	4.0
Minimum Split (s)	9.0	27.0	20.0	8.0



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Total Split (s)			11.0		37.0		22.0	33.0	33.0	49.0	24.0	11.0
Total Split (%)			9.6%		32.2%		19%	29%	29%	43%	21%	10%
Maximum Green (s)			5.0		31.0		16.0	27.0	27.0	43.0	18.0	5.0
Yellow Time (s)			4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)			2.0		2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0		0.0							
Total Lost Time (s)			6.0		6.0							
Lead/Lag					Lag		Lag			Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0		1.0		3.0	1.0	1.5	4.3	1.0	1.0
Minimum Gap (s)			3.0		0.2		0.2	0.2	0.2	2.2	0.2	0.2
Time Before Reduce (s)			0.0		0.0		0.0	0.0	0.0	28.0	0.0	0.0
Time To Reduce (s)			0.0		0.0		0.0	0.0	0.0	15.0	0.0	0.0
Recall Mode			None		None		None	None	None	C-Min	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	47.0	115.0	52.6	58.6	47.6	96.2						
Actuated g/C Ratio	0.41	1.00	0.46	0.51	0.41	0.84						
v/c Ratio	0.05	0.01	0.26	0.03	0.19	0.05						
Control Delay	61.0	0.1	31.5	27.8	9.2	0.1						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	61.0	0.1	31.5	27.8	9.2	0.1						
LOS	E	A	C	C	A	A						
Approach Delay	37.5			31.0	6.4							
Approach LOS	D			C	A							
Queue Length 50th (ft)	26	0	95	15	8	0						
Queue Length 95th (ft)	59	0	170	43	14	0						
Internal Link Dist (ft)	323			970	739							
Turn Bay Length (ft)												
Base Capacity (vph)	1109	1583	586	961	819	1407						
Starvation Cap Reductn	0	0	0	0	0	0						
Spillback Cap Reductn	0	0	0	0	0	0						
Storage Cap Reductn	0	0	0	0	0	0						
Reduced v/c Ratio	0.03	0.01	0.26	0.02	0.18	0.05						

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 57 (50%), Referenced to phase 5:SBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 19.9		Intersection LOS: B	
Intersection Capacity Utilization 31.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 19: Mall Ring Road & Mall Drive 2

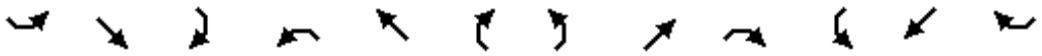


Lane Group	ø9	ø10	ø12	ø13
Total Split (s)	11.0	47.0	34.0	33.0
Total Split (%)	10%	41%	30%	29%
Maximum Green (s)	5.0	41.0	30.0	29.0
Yellow Time (s)	4.0	4.0	3.5	3.5
All-Red Time (s)	2.0	2.0	0.5	0.5
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?			Yes	
Vehicle Extension (s)	1.0	4.3	3.0	3.0
Minimum Gap (s)	0.2	0.2	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Walk Time (s)			5.0	
Flash Dont Walk (s)			11.0	
Pedestrian Calls (#/hr)			0	
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	392	1	982	0	0	0	0	1602	73	263	1562	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		0	0		0	400		0	300		0
Storage Lanes	1		1	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950	0.953								0.950		
Satd. Flow (prot)	1681	1686	1583	0	0	0	0	6408	1583	1770	3539	0
Flt Permitted	0.950	0.953								0.950		
Satd. Flow (perm)	1681	1686	1583	0	0	0	0	6408	1583	1770	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			479						77			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1072			1024			834			410	
Travel Time (s)		24.4			23.3			12.6			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	413	1	1034	0	0	0	0	1686	77	277	1644	0
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	206	208	1034	0	0	0	0	1686	77	277	1644	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			25	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					2	1	1	2	
Detector Template												
Leading Detector (ft)	45	45	45					290	45	45	290	
Trailing Detector (ft)	-6	-6	-6					284	-6	-6	284	
Detector 1 Position(ft)	-6	-6	-6					-6	-6	-6	-6	
Detector 1 Size(ft)	51	51	51					51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA	Free					NA	Perm	Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2			
Detector Phase	4	4						2	2	1	6	

Lane Group	ø5	ø8
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	5	8
Permitted Phases		
Detector Phase		



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)	3.0	3.0						10.0	10.0	3.0	10.0	
Minimum Split (s)	20.0	20.0						20.0	20.0	8.0	20.0	
Total Split (s)	32.0	32.0						60.0	60.0	23.0	64.0	
Total Split (%)	27.8%	27.8%						52.2%	52.2%	20.0%	55.7%	
Maximum Green (s)	27.0	27.0						55.0	55.0	18.0	59.0	
Yellow Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0	2.0	2.0	6.0	
Recall Mode	None	None						C-Max	C-Max	None	Max	
Act Effct Green (s)	19.4	19.4	115.0					62.6	62.6	18.0	59.0	
Actuated g/C Ratio	0.17	0.17	1.00					0.54	0.54	0.16	0.51	
v/c Ratio	0.73	0.73	0.65					0.48	0.09	1.00	0.91	
Control Delay	59.7	60.1	2.1					18.0	5.6	81.5	19.4	
Queue Delay	0.0	0.0	0.0					0.0	0.0	0.0	6.5	
Total Delay	59.7	60.1	2.1					18.1	5.6	81.5	25.9	
LOS	E	E	A					B	A	F	C	
Approach Delay		18.6						17.5			33.9	
Approach LOS		B						B			C	
Queue Length 50th (ft)	153	155	0					228	2	~214	154	
Queue Length 95th (ft)	224	226	0					315	20	m#320	#459	
Internal Link Dist (ft)		992			944			754			330	
Turn Bay Length (ft)	375									300		
Base Capacity (vph)	394	395	1583					3490	897	277	1815	
Starvation Cap Reductn	0	0	0					0	0	0	147	
Spillback Cap Reductn	0	0	0					277	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.52	0.53	0.65					0.52	0.09	1.00	0.99	

Intersection Summary

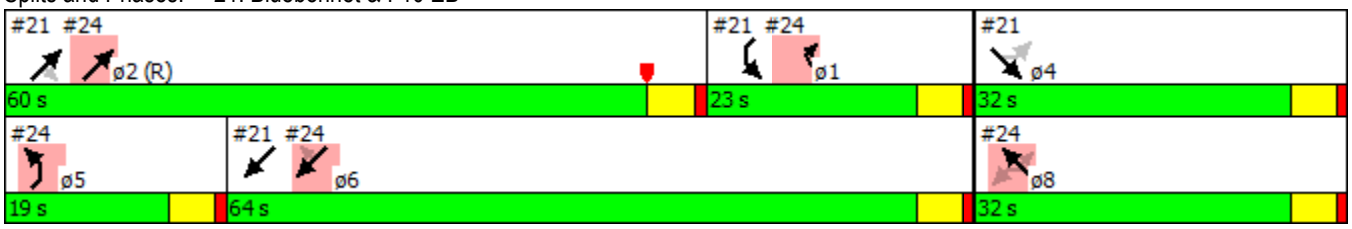
Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 115
Offset: 5 (4%), Referenced to phase 2:NET, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 24.0 Intersection LOS: C
Intersection Capacity Utilization 89.0% ICU Level of Service E
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: Bluebonnet & I-10 EB

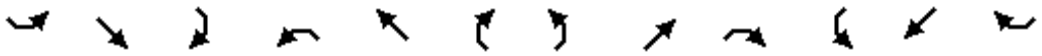


Lane Group	ø5	ø8
Switch Phase		
Minimum Initial (s)	3.0	3.0
Minimum Split (s)	8.0	20.0
Total Split (s)	19.0	32.0
Total Split (%)	17%	28%
Maximum Green (s)	14.0	27.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?		
Vehicle Extension (s)	3.5	2.0
Recall Mode	Max	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	0	0	406	4	588	392	1602	0	0	1419	242
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		525	300		0	0		575
Storage Lanes	0		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt						0.850						0.850
Flt Protected				0.950	0.953		0.950					
Satd. Flow (prot)	0	0	0	1681	1686	1583	3433	3539	0	0	3539	1583
Flt Permitted				0.950	0.953		0.950					
Satd. Flow (perm)	0	0	0	1681	1686	1583	3433	3539	0	0	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						66						255
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		894			1008			410			866	
Travel Time (s)		20.3			22.9			6.2			13.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	427	4	619	413	1686	0	0	1494	255
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	0	0	213	218	619	413	1686	0	0	1494	255
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			40			50	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			2	1
Detector Template												
Leading Detector (ft)				45	45	45	45	290			290	45
Trailing Detector (ft)				-6	-6	-6	-6	284			284	-6
Detector 1 Position(ft)				-6	-6	-6	-6	-6			-6	-6
Detector 1 Size(ft)				51	51	51	51	51			51	51
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call			Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type				Perm	NA	custom	Prot	NA			NA	Perm
Protected Phases					8	1	5	2			6	
Permitted Phases				8		8						6
Detector Phase				8	8	1	5	2			6	6

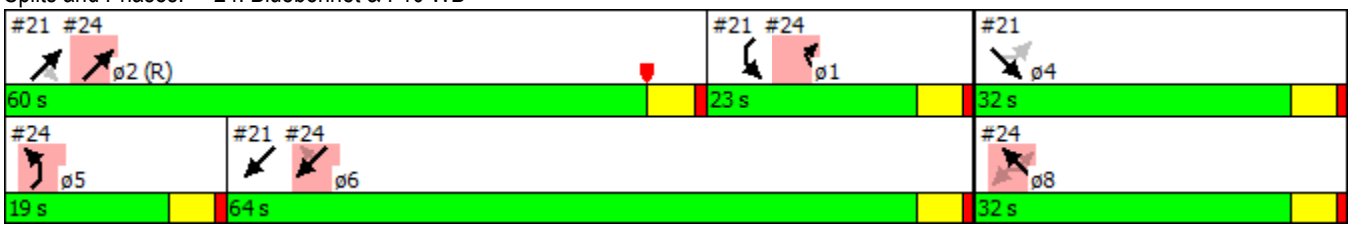
Lane Group	ø4
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)				3.0	3.0	3.0	3.0	10.0			10.0	10.0
Minimum Split (s)				20.0	20.0	8.0	8.0	20.0			20.0	20.0
Total Split (s)				32.0	32.0	23.0	19.0	60.0			64.0	64.0
Total Split (%)				27.8%	27.8%	20.0%	16.5%	52.2%			55.7%	55.7%
Maximum Green (s)				27.0	27.0	18.0	14.0	55.0			59.0	59.0
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
All-Red Time (s)				1.0	1.0	1.0	1.0	1.0			1.0	1.0
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)				5.0	5.0	5.0	5.0	5.0			5.0	5.0
Lead/Lag						Lag	Lead	Lead			Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0	2.0	3.5	2.0			6.0	6.0
Recall Mode				None	None	None	Max	C-Max			Max	Max
Act Effct Green (s)				19.4	19.4	42.4	21.6	62.6			59.0	59.0
Actuated g/C Ratio				0.17	0.17	0.37	0.19	0.54			0.51	0.51
v/c Ratio				0.76	0.77	0.99	0.64	0.87			0.82	0.27
Control Delay				61.7	63.0	66.2	47.6	20.3			21.6	1.7
Queue Delay				0.0	0.0	0.0	0.0	0.0			1.0	0.0
Total Delay				61.7	63.0	66.2	47.6	20.3			22.7	1.7
LOS				E	E	E	D	C			C	A
Approach Delay					64.6			25.6			19.6	
Approach LOS					E			C			B	
Queue Length 50th (ft)				160	164	416	100	687			606	7
Queue Length 95th (ft)				231	237	#595	#245	#835			526	13
Internal Link Dist (ft)		814			928			330			786	
Turn Bay Length (ft)						525	300					575
Base Capacity (vph)				394	395	624	645	1927			1815	936
Starvation Cap Reductn				0	0	0	0	0			0	0
Spillback Cap Reductn				0	0	0	0	0			130	0
Storage Cap Reductn				0	0	0	0	0			0	0
Reduced v/c Ratio				0.54	0.55	0.99	0.64	0.87			0.89	0.27

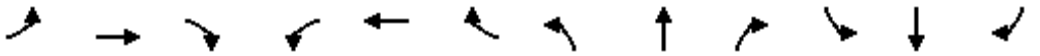
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 5 (4%), Referenced to phase 2:NET, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.00			
Intersection Signal Delay: 31.8		Intersection LOS: C	
Intersection Capacity Utilization 89.0%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 24: Bluebonnet & I-10 WB

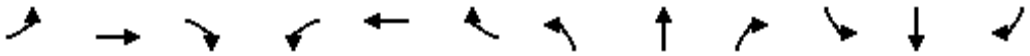


Lane Group	ø4
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	20.0
Total Split (s)	32.0
Total Split (%)	28%
Maximum Green (s)	27.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	29	16	246	8	22	80	1522	588	262	1400	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		200	300		175	175		175
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.947			0.925	0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3352	0	3433	1637	1504	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.121			0.064		
Satd. Flow (perm)	1770	3352	0	3433	1637	1504	225	3539	1583	119	3539	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		17										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		475			1072			866			1049	
Travel Time (s)		10.8			24.4			13.1			15.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	42	31	17	259	8	23	84	1602	619	276	1474	52
Shared Lane Traffic (%)						35%						
Lane Group Flow (vph)	42	48	0	259	16	15	84	1602	619	276	1474	52
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		60			60			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4		3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases							2			6		
Detector Phase	7	4		3	8	8 1	5	2	2 3	1	6	6 7



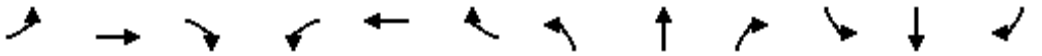
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	5.0		5.0	3.0		3.0	20.0		5.0	20.0	
Minimum Split (s)	8.9	10.9		10.9	8.9		9.6	26.6		11.6	26.6	
Total Split (s)	13.0	11.0		20.0	18.0		12.0	59.0		25.0	72.0	
Total Split (%)	11.3%	9.6%		17.4%	15.7%		10.4%	51.3%		21.7%	62.6%	
Maximum Green (s)	7.1	5.1		14.1	12.1		5.4	52.4		18.4	65.4	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	0.9	0.9		0.9	0.9		1.6	1.6		1.6	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.9	5.9		5.9	5.9		6.6	6.6		6.6	6.6	
Lead/Lag	Lead	Lead		Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		2.5	1.5		1.5	5.0		1.5	5.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	10.1	5.1		13.3	10.2	31.6	63.0	57.8	71.7	80.4	70.9	86.8
Actuated g/C Ratio	0.09	0.04		0.12	0.09	0.27	0.55	0.50	0.62	0.70	0.62	0.75
v/c Ratio	0.27	0.29		0.65	0.11	0.04	0.44	0.90	0.63	0.88	0.68	0.04
Control Delay	55.2	43.0		56.9	48.8	27.1	10.5	22.8	6.4	56.6	17.0	3.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.2	43.0		56.9	48.8	27.1	10.5	22.8	6.4	56.6	17.0	3.4
LOS	E	D		E	D	C	B	C	A	E	B	A
Approach Delay		48.7			54.9			17.9			22.7	
Approach LOS		D			D			B			C	
Queue Length 50th (ft)	31	12		95	11	8	9	542	134	116	556	16
Queue Length 95th (ft)	69	32		139	34	25	m14	m#739	m84	#292	121	m9
Internal Link Dist (ft)		395			992			786			969	
Turn Bay Length (ft)	75			200		200	300		175	175		175
Base Capacity (vph)	164	164		421	173	455	196	1778	998	347	2180	1204
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.29		0.62	0.09	0.03	0.43	0.90	0.62	0.80	0.68	0.04

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 12 (10%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 22.8		Intersection LOS: C	
Intersection Capacity Utilization 86.2%		ICU Level of Service E	
Analysis Period (min) 15			

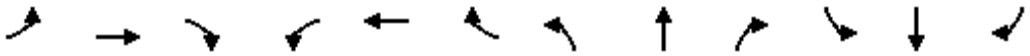
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 27: Bluebonnet & Blue Cross



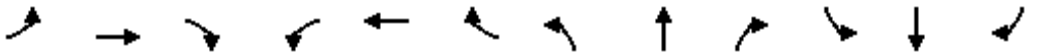
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	1	21	27	2	6	8	1552	24	1	1663	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		130	150		185
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.932			0.977				0.850			0.850
Flt Protected		0.977			0.963		0.950			0.950		
Satd. Flow (prot)	0	1696	0	0	1753	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.830			0.751		0.115			0.134		
Satd. Flow (perm)	0	1441	0	0	1367	0	214	3539	1583	250	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			6				28			28
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1129			1330			1049			1811	
Travel Time (s)		25.7			30.2			15.9			27.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	21	1	22	28	2	6	8	1634	25	1	1751	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	44	0	0	36	0	8	1634	25	1	1751	4
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



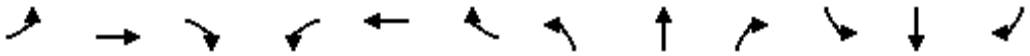
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	11.0	11.0		11.0	11.0		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	25.0	25.0		25.0	25.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	21.7%	21.7%		21.7%	21.7%		78.3%	78.3%	78.3%	78.3%	78.3%	78.3%
Maximum Green (s)	19.0	19.0		19.0	19.0		84.0	84.0	84.0	84.0	84.0	84.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		7.8			7.8		98.7	98.7	98.7	98.7	98.7	98.7
Actuated g/C Ratio		0.07			0.07		0.86	0.86	0.86	0.86	0.86	0.86
v/c Ratio		0.38			0.37		0.04	0.54	0.02	0.00	0.58	0.00
Control Delay		39.3			54.4		2.5	8.6	1.1	3.0	8.0	0.2
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		39.3			54.4		2.5	8.6	1.1	3.0	8.0	0.2
LOS		D			D		A	A	A	A	A	A
Approach Delay		39.3			54.4			8.5			8.0	
Approach LOS		D			D			A			A	
Queue Length 50th (ft)		16			22		2	377	2	0	368	0
Queue Length 95th (ft)		52			55		m0	54	m0	m0	532	m0
Internal Link Dist (ft)		1049			1250			969			1731	
Turn Bay Length (ft)							150		130	150		185
Base Capacity (vph)		256			230		183	3036	1362	214	3036	1362
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.17			0.16		0.04	0.54	0.02	0.00	0.58	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 33 (29%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 9.1		Intersection LOS: A	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 30: Bluebonnet & Gail



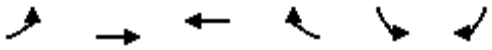
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	6	68	29	2	20	67	1496	16	5	1570	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.892			0.947				0.850			0.850
Flt Protected		0.993			0.972		0.950			0.950		
Satd. Flow (prot)	0	1650	0	0	1715	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.954			0.720		0.128			0.141		
Satd. Flow (perm)	0	1585	0	0	1270	0	238	3539	1583	263	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			21				30			30
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1794			2049			1811			2409	
Travel Time (s)		40.8			46.6			27.4			36.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	12	6	72	31	2	21	71	1575	17	5	1653	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	90	0	0	54	0	71	1575	17	5	1653	25
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	9.2	9.2		9.2	9.2		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	34.0	34.0		34.0	34.0		81.0	81.0	81.0	81.0	81.0	81.0
Total Split (%)	29.6%	29.6%		29.6%	29.6%		70.4%	70.4%	70.4%	70.4%	70.4%	70.4%
Maximum Green (s)	27.8	27.8		27.8	27.8		75.0	75.0	75.0	75.0	75.0	75.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.2	1.2		1.2	1.2		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.2			6.2		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		9.3			9.3		97.0	97.0	97.0	97.0	97.0	97.0
Actuated g/C Ratio		0.08			0.08		0.84	0.84	0.84	0.84	0.84	0.84
v/c Ratio		0.56			0.45		0.35	0.53	0.01	0.02	0.55	0.02
Control Delay		44.6			44.8		6.1	3.1	0.1	3.0	4.6	0.9
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		44.6			44.8		6.1	3.1	0.1	3.0	4.6	0.9
LOS		D			D		A	A	A	A	A	A
Approach Delay		44.6			44.8			3.2			4.5	
Approach LOS		D			D			A			A	
Queue Length 50th (ft)		39			24		13	154	1	1	172	0
Queue Length 95th (ft)		89			63		m4	28	m0	4	278	5
Internal Link Dist (ft)		1714			1969			1731			2329	
Turn Bay Length (ft)							150		150	150		150
Base Capacity (vph)		410			322		200	2985	1340	222	2985	1340
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.22			0.17		0.35	0.53	0.01	0.02	0.55	0.02

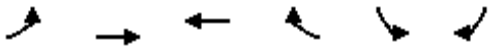
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 86 (75%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay: 5.5		Intersection LOS: A	
Intersection Capacity Utilization 75.0%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 33: Bluebonnet & Oliphant



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Lane Configurations												
Volume (vph)	16	38	181	30	26	17						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.95						
Frt				0.850	0.941							
Flt Protected	0.950				0.970							
Satd. Flow (prot)	1770	1863	1863	1583	3299	0						
Flt Permitted	0.442				0.970							
Satd. Flow (perm)	823	1863	1863	1583	3299	0						
Right Turn on Red				Yes		Yes						
Satd. Flow (RTOR)				33	18							
Link Speed (mph)		30	30		30							
Link Distance (ft)		819	802		318							
Travel Time (s)		18.6	18.2		7.2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	17	41	197	33	28	18						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	17	41	197	33	46	0						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Right	Left	Right						
Median Width(ft)		12	0		36							
Link Offset(ft)		0	0		0							
Crosswalk Width(ft)		16	16		16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15			9	15	9						
Number of Detectors	1	2	2	1	1							
Detector Template	Left	Thru	Thru	Right	Left							
Leading Detector (ft)	20	100	100	20	20							
Trailing Detector (ft)	0	0	0	0	0							
Detector 1 Position(ft)	0	0	0	0	0							
Detector 1 Size(ft)	20	6	6	20	20							
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex							
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0							
Detector 2 Position(ft)		94	94									
Detector 2 Size(ft)		6	6									
Detector 2 Type		Cl+Ex	Cl+Ex									
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0									
Turn Type	D.P+P	NA	NA	pm+ov	Prot							
Protected Phases	8	8 11	11	9 10	9 10		1	2	4	5	7	9
Permitted Phases	11			11								
Detector Phase	8	8 11	11	9 10	9 10							
Switch Phase												
Minimum Initial (s)	4.0		14.0				4.0	4.0	14.0	4.0	14.0	4.0
Minimum Split (s)	22.0		20.0				10.0	10.0	20.0	10.0	20.0	8.0

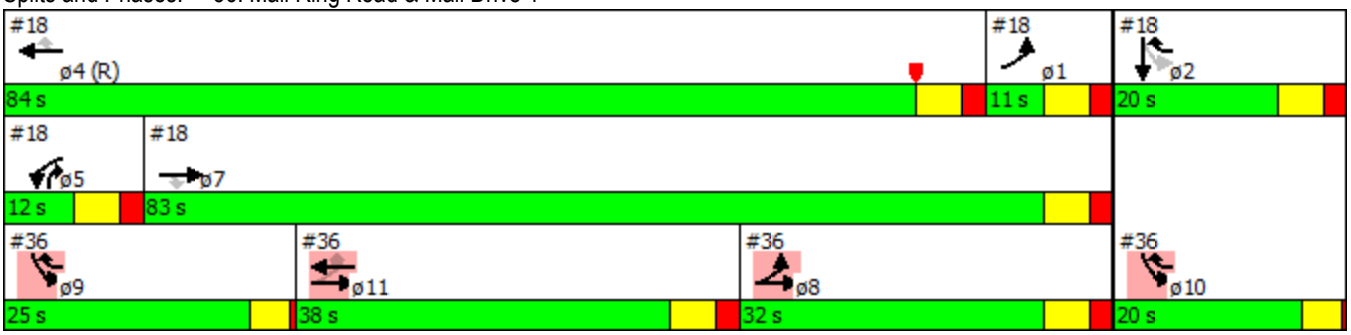
Lane Group	ø10
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	10
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	20.0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Total Split (s)	32.0		38.0				11.0	20.0	84.0	12.0	83.0	25.0
Total Split (%)	27.8%		33.0%				10%	17%	73%	10%	72%	22%
Maximum Green (s)	26.0		32.0				5.0	14.0	78.0	6.0	77.0	21.0
Yellow Time (s)	4.0		4.0				4.0	4.0	4.0	4.0	4.0	3.5
All-Red Time (s)	2.0		2.0				2.0	2.0	2.0	2.0	2.0	0.5
Lost Time Adjust (s)	0.0		0.0									
Total Lost Time (s)	6.0		6.0									
Lead/Lag			Lag				Lag		Lead	Lead	Lag	Lead
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0		4.3				2.5	2.0	4.3	2.5	4.3	3.0
Minimum Gap (s)	3.0		2.2				0.2	0.2	2.2	0.2	2.2	3.0
Time Before Reduce (s)	0.0		34.0				0.0	0.0	34.0	0.0	0.0	0.0
Time To Reduce (s)	0.0		15.0				0.0	0.0	15.0	0.0	0.0	0.0
Recall Mode	None		Min				None	None	C-Min	None	None	None
Walk Time (s)	5.0											
Flash Dont Walk (s)	11.0											
Pedestrian Calls (#/hr)	0											
Act Effct Green (s)	84.9	92.1	19.1	39.2	16.0							
Actuated g/C Ratio	0.74	0.80	0.17	0.34	0.14							
v/c Ratio	0.01	0.03	0.64	0.06	0.10							
Control Delay	3.2	2.8	53.7	6.4	67.1							
Queue Delay	0.0	0.0	0.0	0.0	0.0							
Total Delay	3.2	2.8	53.7	6.4	67.1							
LOS	A	A	D	A	E							
Approach Delay		2.9	46.9		67.1							
Approach LOS		A	D		E							
Queue Length 50th (ft)	1	1	138	0	13							
Queue Length 95th (ft)	1	5	201	18	32							
Internal Link Dist (ft)		739	722		238							
Turn Bay Length (ft)												
Base Capacity (vph)	1149	1491	518	575	916							
Starvation Cap Reductn	0	0	0	0	0							
Spillback Cap Reductn	0	0	0	0	0							
Storage Cap Reductn	0	0	0	0	0							
Reduced v/c Ratio	0.01	0.03	0.38	0.06	0.05							

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 97 (84%), Referenced to phase 4:WBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 42.1		Intersection LOS: D	
Intersection Capacity Utilization 25.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 36: Mall Ring Road & Mall Drive 1

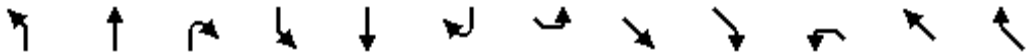


Lane Group	ø10
Total Split (s)	20.0
Total Split (%)	17%
Maximum Green (s)	16.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Minimum Gap (s)	3.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

M.10 2017 NO BUILD NOON – ESSEN LANE

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	216	573	81	348	860	384	472	803	123	158	1072	303
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	800		0	300		0	150		0
Storage Lanes	1		0	1		1	2		0	1		0
Taper Length (ft)	150			25			200			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Frt		0.981				0.850		0.980			0.967	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3472	0	1770	3539	1583	3433	3468	0	1770	3422	0
Flt Permitted	0.112			0.096			0.950			0.950		
Satd. Flow (perm)	209	3472	0	179	3539	1583	3433	3468	0	1770	3422	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8				254		11			23	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1877			1475			2128			1788	
Travel Time (s)		28.4			22.3			32.2			27.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	235	623	88	378	935	417	513	873	134	172	1165	329
Shared Lane Traffic (%)												
Lane Group Flow (vph)	235	711	0	378	935	417	513	1007	0	172	1494	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	0	1	1		1	1	
Detector Template												
Leading Detector (ft)	45	162		45	162	0	45	45		45	45	
Trailing Detector (ft)	0	156		0	156	0	0	0		0	0	
Detector 1 Position(ft)	0	-6		0	-6	0	0	0		0	0	
Detector 1 Size(ft)	45	51		45	51	50	45	45		45	45	
Detector 1 Type	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2		2						
Detector Phase	1	6		5	2	2	3	8		7	4	



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	5.0	10.0		3.0	10.0	
Minimum Split (s)	8.8	15.8		8.8	15.8	15.8	11.5	16.5		9.5	16.5	
Total Split (s)	22.0	41.6		34.0	53.6	53.6	29.0	70.8		28.2	70.0	
Total Split (%)	12.6%	23.8%		19.5%	30.7%	30.7%	16.6%	40.5%		16.2%	40.1%	
Maximum Green (s)	16.2	35.8		28.2	47.8	47.8	22.5	64.3		21.7	63.5	
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8	5.5	5.5		5.5	5.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8		5.8	5.8	5.8	6.5	6.5		6.5	6.5	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	6.0		2.0	6.0	6.0	2.0	6.0		2.0	6.0	
Minimum Gap (s)	0.2	4.0		0.2	4.0	4.0	0.2	4.0		0.2	4.0	
Time Before Reduce (s)	0.0	20.0		0.0	20.0	20.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	
Act Effct Green (s)	52.0	35.8		69.8	47.8	47.8	22.5	60.8		25.2	63.5	
Actuated g/C Ratio	0.30	0.21		0.40	0.27	0.27	0.13	0.35		0.14	0.36	
v/c Ratio	1.14	0.99		1.15	0.97	0.68	1.16	0.83		0.67	1.19	
Control Delay	149.1	98.4		145.3	83.6	27.2	157.8	58.1		85.2	138.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	149.1	98.4		145.3	83.6	27.2	157.8	58.1		85.2	138.9	
LOS	F	F		F	F	C	F	E		F	F	
Approach Delay		111.0			83.5			91.8			133.4	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~260	428		~456	561	172	~356	541		193	~1072	
Queue Length 95th (ft)	#452	#571		#679	#701	306	#479	624		#315	#1212	
Internal Link Dist (ft)		1797			1395			2048			1708	
Turn Bay Length (ft)	250			800			300			150		
Base Capacity (vph)	207	718		328	968	617	442	1284		255	1259	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	1.14	0.99		1.15	0.97	0.68	1.16	0.78		0.67	1.19	

Intersection Summary

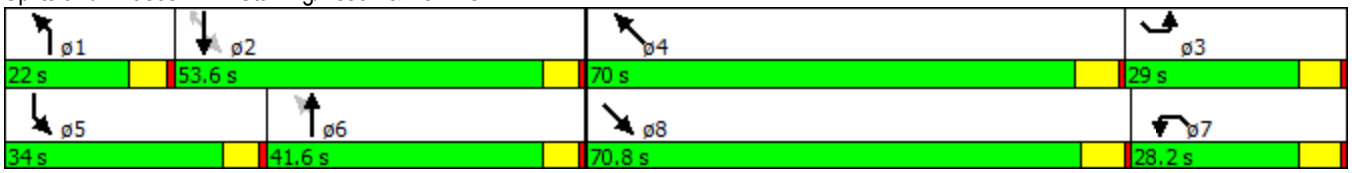
Area Type: Other
Cycle Length: 174.6
Actuated Cycle Length: 174.6
Natural Cycle: 140
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.19
Intersection Signal Delay: 104.3 Intersection LOS: F
Intersection Capacity Utilization 111.0% ICU Level of Service H
Analysis Period (min) 15

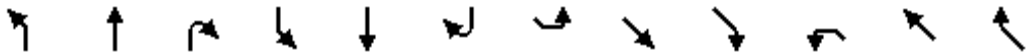
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Starring/Essen & Perkins





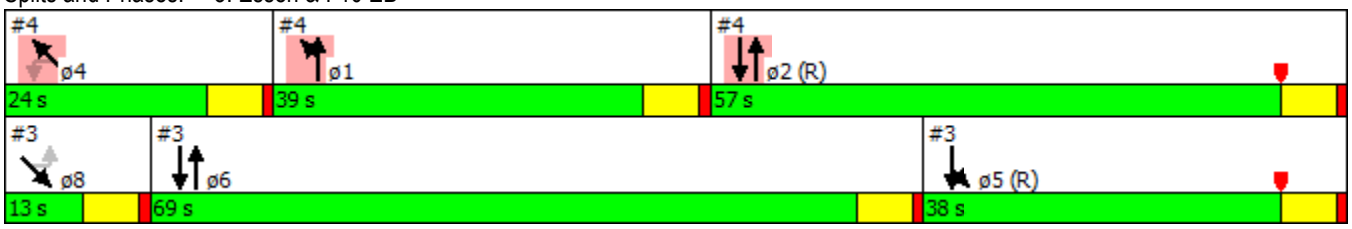
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	0	1881	470	334	1357	0	12	0	924	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		0	0		800	0		0
Storage Lanes	1		0	2		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.86	0.86	0.97	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt		0.970							0.850			
Flt Protected				0.950			0.950	0.950				
Satd. Flow (prot)	0	6216	0	3433	3539	0	1681	1681	1583	0	0	0
Flt Permitted				0.950			0.950	0.950				
Satd. Flow (perm)	0	6216	0	3433	3539	0	1681	1681	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		79							245			
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		721			409			1012			1106	
Travel Time (s)		10.9			6.2			23.0			25.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	2045	511	363	1475	0	13	0	1004	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	0	2556	0	363	1475	0	6	7	1004	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2		1	1	0			
Detector Template							Left					
Leading Detector (ft)		162		45	162		20	45	0			
Trailing Detector (ft)		156		0	156		0	0	0			
Detector 1 Position(ft)		-6		0	-6		0	0	0			
Detector 1 Size(ft)		51		45	51		20	45	20			
Detector 1 Type		Call		Cl+Ex	Call		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Queue (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Delay (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA		Prot	NA		Perm	NA	Free			
Protected Phases		6		5	5 6			8				
Permitted Phases							8		Free			
Detector Phase		6		5	5 6		8	8				

Lane Group	ø1	ø2	ø4
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	1	2	4
Permitted Phases			
Detector Phase			

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)		10.0		3.0			3.0	3.0				
Minimum Split (s)		16.0		9.0			9.0	9.0				
Total Split (s)		69.0		38.0			13.0	13.0				
Total Split (%)		57.5%		31.7%			10.8%	10.8%				
Maximum Green (s)		63.0		32.0			7.0	7.0				
Yellow Time (s)		5.0		5.0			5.0	5.0				
All-Red Time (s)		1.0		1.0			1.0	1.0				
Lost Time Adjust (s)		0.0		0.0			0.0	0.0				
Total Lost Time (s)		6.0		6.0			6.0	6.0				
Lead/Lag		Lag					Lead	Lead				
Lead-Lag Optimize?		Yes					Yes	Yes				
Vehicle Extension (s)		4.0		2.5			2.0	2.0				
Minimum Gap (s)		2.0		0.2			0.2	0.2				
Time Before Reduce (s)		10.0		0.0			0.0	0.0				
Time To Reduce (s)		20.0		0.0			0.0	0.0				
Recall Mode		None		C-Max			Max	Max				
Act Effct Green (s)		59.4		35.6	101.0		7.0	7.0	120.0			
Actuated g/C Ratio		0.50		0.30	0.84		0.06	0.06	1.00			
v/c Ratio		0.82		0.36	0.50		0.06	0.07	0.63			
Control Delay		25.8		20.3	6.7		55.0	55.2	1.9			
Queue Delay		0.1		0.0	0.3		0.0	0.0	0.0			
Total Delay		25.9		20.3	7.1		55.0	55.2	1.9			
LOS		C		C	A		D	E	A			
Approach Delay		25.9			9.7			2.6				
Approach LOS		C			A			A				
Queue Length 50th (ft)		586		111	141		5	5	0			
Queue Length 95th (ft)		220		109	170		20	22	0			
Internal Link Dist (ft)		641			329			932			1026	
Turn Bay Length (ft)									800			
Base Capacity (vph)		3300		1017	2920		98	98	1583			
Starvation Cap Reductn		131		0	743		0	0	0			
Spillback Cap Reductn		101		0	0		0	0	0			
Storage Cap Reductn		0		0	0		0	0	0			
Reduced v/c Ratio		0.81		0.36	0.68		0.06	0.07	0.63			

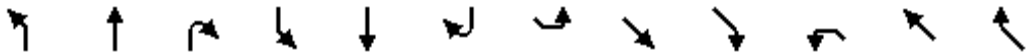
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 36 (30%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 16.0		Intersection LOS: B	
Intersection Capacity Utilization 63.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Essen & I-10 EB



Lane Group	ø1	ø2	ø4
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	39.0	57.0	24.0
Total Split (%)	33%	48%	20%
Maximum Green (s)	33.0	51.0	18.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes
Vehicle Extension (s)	2.5	4.0	4.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	None	C-Max	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	498	1395	0	0	1481	75	0	0	0	210	0	278
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	550		200	0		0	750		0
Storage Lanes	2		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.86	0.86	1.00	1.00	1.00	0.95	0.95	1.00
Frt					0.993							0.850
Flt Protected	0.950									0.950	0.950	
Satd. Flow (prot)	3433	3539	0	0	6363	0	0	0	0	1681	1681	1583
Flt Permitted	0.950									0.950	0.950	
Satd. Flow (perm)	3433	3539	0	0	6363	0	0	0	0	1681	1681	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10							245
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		409			805			936			1390	
Travel Time (s)		6.2			12.2			21.3			31.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	541	1516	0	0	1610	82	0	0	0	228	0	302
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	541	1516	0	0	1692	0	0	0	0	114	114	302
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			20			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2					1	1	0
Detector Template										Left		
Leading Detector (ft)	45	162			162					20	45	0
Trailing Detector (ft)	0	156			156					0	0	0
Detector 1 Position(ft)	0	-6			-6					0	0	0
Detector 1 Size(ft)	45	51			51					20	45	20
Detector 1 Type	Cl+Ex	Call			Call					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA			NA					Perm	NA	Free
Protected Phases	1	1 2			2						4	
Permitted Phases										4		Free
Detector Phase	1	1 2			2					4	4	

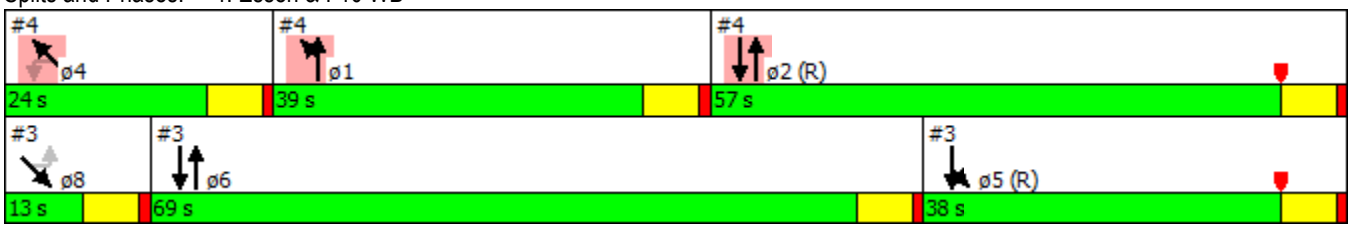
Lane Group	ø5	ø6	ø8
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	5	6	8
Permitted Phases			
Detector Phase			

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0				10.0					3.0	3.0	
Minimum Split (s)	9.0				16.0					9.0	9.0	
Total Split (s)	39.0				57.0					24.0	24.0	
Total Split (%)	32.5%				47.5%					20.0%	20.0%	
Maximum Green (s)	33.0				51.0					18.0	18.0	
Yellow Time (s)	5.0				5.0					5.0	5.0	
All-Red Time (s)	1.0				1.0					1.0	1.0	
Lost Time Adjust (s)	0.0				0.0					0.0	0.0	
Total Lost Time (s)	6.0				6.0					6.0	6.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?	Yes									Yes	Yes	
Vehicle Extension (s)	2.5				4.0					4.0	4.0	
Minimum Gap (s)	0.2				2.0					0.2	0.2	
Time Before Reduce (s)	0.0				10.0					0.0	0.0	
Time To Reduce (s)	0.0				20.0					0.0	0.0	
Recall Mode	None				C-Max					None	None	
Act Effct Green (s)	28.3	94.0			59.7					14.0	14.0	120.0
Actuated g/C Ratio	0.24	0.78			0.50					0.12	0.12	1.00
v/c Ratio	0.67	0.55			0.53					0.58	0.58	0.19
Control Delay	37.3	3.7			21.0					61.6	61.6	0.3
Queue Delay	0.0	1.4			0.0					0.0	0.0	0.0
Total Delay	37.3	5.1			21.0					61.6	61.6	0.3
LOS	D	A			C					E	E	A
Approach Delay		13.6			21.0						26.6	
Approach LOS		B			C						C	
Queue Length 50th (ft)	103	4			245					89	89	0
Queue Length 95th (ft)	154	5			198					149	149	0
Internal Link Dist (ft)		329			725			856			1310	
Turn Bay Length (ft)										750		
Base Capacity (vph)	952	2754			3169					252	252	1583
Starvation Cap Reductn	0	970			0					0	0	0
Spillback Cap Reductn	0	0			0					0	0	0
Storage Cap Reductn	0	0			0					0	0	0
Reduced v/c Ratio	0.57	0.85			0.53					0.45	0.45	0.19

Intersection Summary

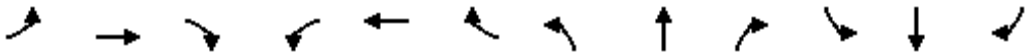
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 36 (30%), Referenced to phase 2:NBSB and 5:, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 18.1 Intersection LOS: B
Intersection Capacity Utilization 63.0% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 4: Essen & I-10 WB

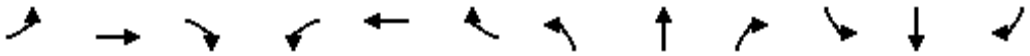


Lane Group	ø5	ø6	ø8
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	38.0	69.0	13.0
Total Split (%)	32%	58%	11%
Maximum Green (s)	32.0	63.0	7.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lead
Lead-Lag Optimize?		Yes	Yes
Vehicle Extension (s)	2.5	4.0	2.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	C-Max	None	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	72	1	51	30	0	138	21	2200	23	119	2113	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	300		0	150		200	200		0
Storage Lanes	1		0	0		1	1		1	1		0
Taper Length (ft)	25			25			100			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Frt		0.853				0.850			0.850		0.996	
Flt Protected	0.950				0.950		0.950			0.950		
Satd. Flow (prot)	1770	1589	0	0	1770	1583	1770	5085	1583	1770	5065	0
Flt Permitted	0.736				0.720		0.950			0.950		
Satd. Flow (perm)	1371	1589	0	0	1341	1583	1770	5085	1583	1770	5065	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		55							136		8	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		452			896			898			193	
Travel Time (s)		10.3			20.4			13.6			2.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	78	1	55	33	0	150	23	2391	25	129	2297	64
Shared Lane Traffic (%)												
Lane Group Flow (vph)	78	56	0	0	33	150	23	2391	25	129	2361	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left		Right			Right			
Leading Detector (ft)	45	45		20	45	20	45	162	20	45	162	
Trailing Detector (ft)	0	0		0	0	0	0	156	0	0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6	0	0	-6	
Detector 1 Size(ft)	45	45		20	45	20	45	51	20	45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA	pt+ov	Prot	NA	Perm	Prot	NA	
Protected Phases		8			4	4 5	1	6		5	2	
Permitted Phases	8			4					6			
Detector Phase	8	8		4	4	4 5	1	6	6	5	2	

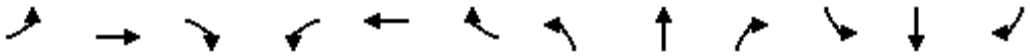


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	15.0	15.0	3.0	15.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	21.0	21.0	11.0	21.0	
Total Split (s)	19.0	19.0		19.0	19.0		11.0	78.0	78.0	23.0	90.0	
Total Split (%)	15.8%	15.8%		15.8%	15.8%		9.2%	65.0%	65.0%	19.2%	75.0%	
Maximum Green (s)	13.0	13.0		13.0	13.0		5.0	72.0	72.0	17.0	84.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0	6.0	6.0	6.0	
Lead/Lag							Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.5	2.5	2.0	2.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0	2.0	0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0	10.0	0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0	20.0	0.0	20.0	
Recall Mode	None	None		None	None		None	Min	Min	None	C-Min	
Act Effct Green (s)	11.7	11.7			11.7	30.4	4.9	77.6	77.6	12.7	89.7	
Actuated g/C Ratio	0.10	0.10			0.10	0.25	0.04	0.65	0.65	0.11	0.75	
v/c Ratio	0.59	0.27			0.25	0.37	0.32	0.73	0.02	0.69	0.62	
Control Delay	69.5	17.0			54.4	38.6	62.3	14.7	0.0	76.9	7.0	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.1	
Total Delay	69.5	17.0			54.4	38.6	62.3	14.7	0.0	76.9	7.1	
LOS	E	B			D	D	E	B	A	E	A	
Approach Delay		47.6			41.5			15.0			10.7	
Approach LOS		D			D			B			B	
Queue Length 50th (ft)	58	1			24	95	19	416	0	92	505	
Queue Length 95th (ft)	111	41			57	149	m21	m325	m0	144	555	
Internal Link Dist (ft)		372			816			818			113	
Turn Bay Length (ft)	200						150		200	200		
Base Capacity (vph)	148	221			145	442	73	3287	1071	250	3788	
Starvation Cap Reductn	0	0			0	0	0	0	0	0	269	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.53	0.25			0.23	0.34	0.32	0.73	0.02	0.52	0.67	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 14.7		Intersection LOS: B	
Intersection Capacity Utilization 74.8%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Essen & Margaret Ann

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	5	5	64	5	61	1	2284	98	77	2194	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	100		0	350		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			150		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.964				0.850		0.994			0.999	
Flt Protected		0.977			0.955		0.950			0.950		
Satd. Flow (prot)	0	1754	0	0	1779	1583	1770	5055	0	1770	5080	0
Flt Permitted		0.832			0.726		0.056			0.950		
Satd. Flow (perm)	0	1494	0	0	1352	1583	104	5055	0	1770	5080	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		5						10			1	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		496			1336			480			721	
Travel Time (s)		11.3			30.4			7.3			10.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	5	5	70	5	66	1	2483	107	84	2385	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	19	0	0	75	66	1	2590	0	84	2397	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45	45	20	144		45	162	
Trailing Detector (ft)	0	0		0	0	0	0	138		0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	20	45		20	45	45	20	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								138			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA	pt+ov	pm+pt	NA		Prot	NA	
Protected Phases		8			4	4 5	1	6		5	2	
Permitted Phases	8			4			6					
Detector Phase	8	8		4	4	4 5	1	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		4.0	15.0		3.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	21.0		9.0	21.0	
Total Split (s)	21.0	21.0		21.0	21.0		11.0	81.0		18.0	88.0	
Total Split (%)	17.5%	17.5%		17.5%	17.5%		9.2%	67.5%		15.0%	73.3%	
Maximum Green (s)	15.0	15.0		15.0	15.0		5.0	75.0		12.0	82.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		3.0	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)		10.7			10.7	26.3	82.8	81.7		9.6	95.1	
Actuated g/C Ratio		0.09			0.09	0.22	0.69	0.68		0.08	0.79	
v/c Ratio		0.14			0.62	0.19	0.01	0.75		0.60	0.60	
Control Delay		41.2			73.6	37.3	11.0	12.3		76.9	4.2	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.1	
Total Delay		41.2			73.6	37.3	11.0	12.3		76.9	4.3	
LOS		D			E	D	B	B		E	A	
Approach Delay		41.2			56.6			12.3			6.8	
Approach LOS		D			E			B			A	
Queue Length 50th (ft)		10			57	42	0	322		65	52	
Queue Length 95th (ft)		33			106	76	m0	250		m104	547	
Internal Link Dist (ft)		416			1256			400			641	
Turn Bay Length (ft)						100	100			350		
Base Capacity (vph)		191			169	362	146	3443		177	4024	
Starvation Cap Reductn		0			0	0	0	9		0	433	
Spillback Cap Reductn		0			0	0	0	0		0	59	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.10			0.44	0.18	0.01	0.75		0.47	0.67	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 105 (88%), Referenced to phase 6:NBTL, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 11.0		Intersection LOS: B	
Intersection Capacity Utilization 73.3%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 9: Essen & Essen Park

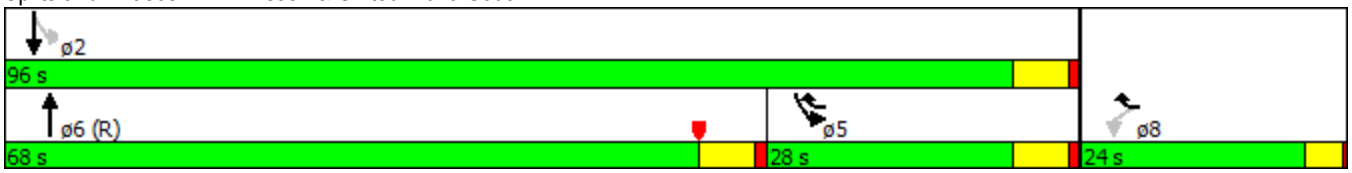
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	315	229	1473	201	137	1241
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		0	150	
Storage Lanes	2	1		0	1	
Taper Length (ft)	25				100	
Lane Util. Factor	0.97	1.00	0.91	0.91	1.00	0.95
Frt		0.850	0.982			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	4994	0	1770	3539
Flt Permitted	0.950				0.078	
Satd. Flow (perm)	3433	1583	4994	0	145	3539
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			30			
Link Speed (mph)	30		45			45
Link Distance (ft)	1306		805			993
Travel Time (s)	29.7		12.2			15.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	342	249	1601	218	149	1349
Shared Lane Traffic (%)						
Lane Group Flow (vph)	342	249	1819	0	149	1349
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	52		20			25
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2		1	2
Detector Template						
Leading Detector (ft)	45	45	162		45	162
Trailing Detector (ft)	0	0	156		0	256
Detector 1 Position(ft)	0	0	-6		0	-6
Detector 1 Size(ft)	45	45	51		45	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			156			256
Detector 2 Size(ft)			6			-94
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm	pt+ov	NA		pm+pt	NA
Protected Phases		5 8	6		5	2
Permitted Phases	8				2	
Detector Phase	8	5 8	6		5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	4.0		15.0		5.0	15.0
Minimum Split (s)	20.0		21.0		11.0	21.0
Total Split (s)	24.0		68.0		28.0	96.0
Total Split (%)	20.0%		56.7%		23.3%	80.0%
Maximum Green (s)	20.0		62.0		22.0	90.0
Yellow Time (s)	3.5		5.0		5.0	5.0
All-Red Time (s)	0.5		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.0		6.0		6.0	6.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		5.0		2.0	5.0
Minimum Gap (s)	3.0		3.0		0.2	3.0
Time Before Reduce (s)	0.0		15.0		0.0	15.0
Time To Reduce (s)	0.0		15.0		0.0	15.0
Recall Mode	None		C-Min		None	Min
Walk Time (s)	5.0					
Flash Dont Walk (s)	11.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	17.3	39.5	68.5		92.7	92.7
Actuated g/C Ratio	0.14	0.33	0.57		0.77	0.77
v/c Ratio	0.69	0.48	0.64		0.42	0.49
Control Delay	56.2	34.1	4.5		21.3	3.2
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	56.2	34.1	4.5		21.3	3.2
LOS	E	C	A		C	A
Approach Delay	46.8		4.5			5.0
Approach LOS	D		A			A
Queue Length 50th (ft)	132	153	38		28	88
Queue Length 95th (ft)	173	207	252		106	106
Internal Link Dist (ft)	1226		725			913
Turn Bay Length (ft)		100			150	
Base Capacity (vph)	585	540	2881		414	2748
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.58	0.46	0.63		0.36	0.49

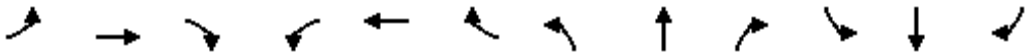
Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 31 (26%), Referenced to phase 6:NBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 11.1	Intersection LOS: B
Intersection Capacity Utilization 62.8%	ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 17: Essen & United Plaza South



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	764	92	97	114	86	225	79	1255	61	289	1370	535
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	425		50	280		280	150		0	550		300
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	100			200			25			100		
Lane Util. Factor	0.91	0.91	1.00	0.95	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Frt			0.850			0.850		0.993				0.850
Flt Protected	0.950	0.967		0.950	0.992		0.950			0.950		
Satd. Flow (prot)	3221	1639	1583	1681	1755	1583	1770	5050	0	1770	5085	1583
Flt Permitted	0.950	0.967		0.950	0.992		0.165			0.165		
Satd. Flow (perm)	3221	1639	1583	1681	1755	1583	307	5050	0	307	5085	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								6				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1908			1396			1335			898	
Travel Time (s)		43.4			31.7			20.2			13.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	830	100	105	124	93	245	86	1364	66	314	1489	582
Shared Lane Traffic (%)	26%			14%								
Lane Group Flow (vph)	614	316	105	107	110	245	86	1430	0	314	1489	582
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		45			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	0	1	1	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	0	45	45	45	45	162		45	162	0
Trailing Detector (ft)	0	0	0	0	0	0	0	156		0	156	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	-6		0	-6	-6
Detector 1 Size(ft)	45	45	20	45	45	45	45	51		45	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Call
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	pm+pt	NA		pm+pt	NA	pt+ov
Protected Phases	8	8	8 1	4	4	4 5	1	6		5	2	2 8
Permitted Phases							6			2		
Detector Phase	8	8	8 1	4	4	4 5	1	6		5	2	2 8

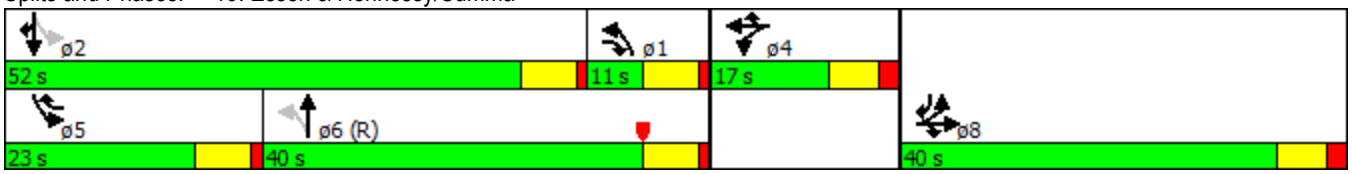


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.5	14.5		14.5	14.5		9.0	21.0		9.0	21.0	
Total Split (s)	40.0	40.0		17.0	17.0		11.0	40.0		23.0	52.0	
Total Split (%)	33.3%	33.3%		14.2%	14.2%		9.2%	33.3%		19.2%	43.3%	
Maximum Green (s)	33.5	33.5		10.5	10.5		5.0	34.0		17.0	46.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	31.5	31.5	42.8	10.5	10.5	27.0	36.0	36.0		41.2	41.2	79.3
Actuated g/C Ratio	0.26	0.26	0.36	0.09	0.09	0.22	0.30	0.30		0.34	0.34	0.66
v/c Ratio	0.73	0.73	0.19	0.73	0.72	0.69	0.37	0.94		1.01	0.85	0.56
Control Delay	45.6	51.2	18.7	81.0	79.1	33.7	38.2	45.9		83.1	30.5	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	45.6	51.2	18.7	81.0	79.1	33.7	38.2	45.9		83.1	30.5	9.3
LOS	D	D	B	F	E	C	D	D		F	C	A
Approach Delay		44.6			55.4			45.4			32.2	
Approach LOS		D			E			D			C	
Queue Length 50th (ft)	232	240	37	86	88	82	57	430		~176	364	105
Queue Length 95th (ft)	301	356	73	#181	#182	150	m#91	#534		#357	262	238
Internal Link Dist (ft)		1828			1316			1255			818	
Turn Bay Length (ft)	425		50	280		280	150			550		300
Base Capacity (vph)	899	457	590	147	153	356	234	1517		312	1949	1098
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.68	0.69	0.18	0.73	0.72	0.69	0.37	0.94		1.01	0.76	0.53

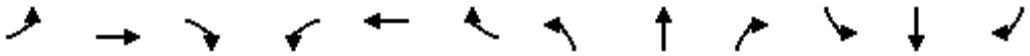
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 94 (78%), Referenced to phase 6:NBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.01			
Intersection Signal Delay: 40.3		Intersection LOS: D	
Intersection Capacity Utilization 79.4%		ICU Level of Service D	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Essen & Hennessy/Summa



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	199	131	185	74	93	76	143	1120	85	96	1334	151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	150		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.912			0.932			0.989			0.985	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1699	0	1770	1736	0	1770	5029	0	1770	5009	0
Flt Permitted	0.522			0.239			0.950			0.950		
Satd. Flow (perm)	972	1699	0	445	1736	0	1770	5029	0	1770	5009	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		62			36			13			19	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1062			1416			1475			1335	
Travel Time (s)		24.1			32.2			22.3			20.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	216	142	201	80	101	83	155	1217	92	104	1450	164
Shared Lane Traffic (%)												
Lane Group Flow (vph)	216	343	0	80	184	0	155	1309	0	104	1614	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template												
Leading Detector (ft)	45	45		45	45		45	162		45	162	
Trailing Detector (ft)	0	0		0	0		0	156		0	156	
Detector 1 Position(ft)	0	0		0	0		0	-6		0	-6	
Detector 1 Size(ft)	45	45		45	45		45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4		1	6		5	2	



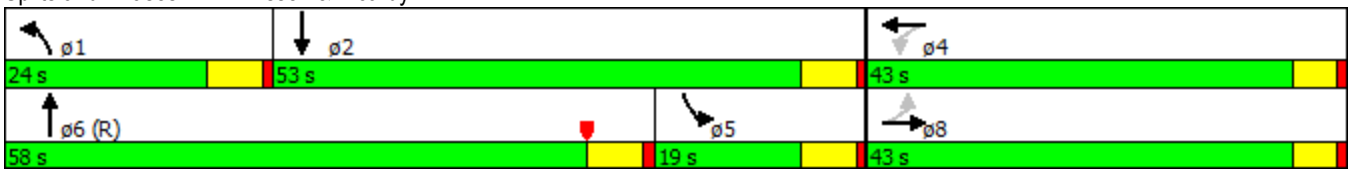
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		2.0	15.0		3.0	15.0	
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	21.0		9.0	21.0	
Total Split (s)	43.0	43.0		43.0	43.0		24.0	58.0		19.0	53.0	
Total Split (%)	35.8%	35.8%		35.8%	35.8%		20.0%	48.3%		15.8%	44.2%	
Maximum Green (s)	38.0	38.0		38.0	38.0		18.0	52.0		13.0	47.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Act Effct Green (s)	28.9	28.9		28.9	28.9		14.7	61.1		13.0	59.5	
Actuated g/C Ratio	0.24	0.24		0.24	0.24		0.12	0.51		0.11	0.50	
v/c Ratio	0.93	0.75		0.75	0.41		0.72	0.51		0.54	0.65	
Control Delay	86.1	44.3		79.7	31.8		68.8	21.3		38.0	12.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	86.1	44.3		79.7	31.8		68.8	21.3		38.0	12.6	
LOS	F	D		E	C		E	C		D	B	
Approach Delay		60.4			46.3			26.3			14.1	
Approach LOS		E			D			C			B	
Queue Length 50th (ft)	163	203		57	95		116	238		56	108	
Queue Length 95th (ft)	#250	284		#120	148		185	324		m88	189	
Internal Link Dist (ft)		982			1336			1395			1255	
Turn Bay Length (ft)	225			150			150			150		
Base Capacity (vph)	307	580		140	574		265	2568		191	2492	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.70	0.59		0.57	0.32		0.58	0.51		0.54	0.65	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 69 (58%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 27.1 Intersection LOS: C
Intersection Capacity Utilization 77.7% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Essen & Picardy



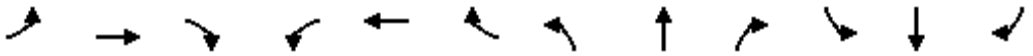
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	87	175	1602	84	163	1103
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	125		125	125	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.88	0.91	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2787	5085	1583	1770	3539
Flt Permitted	0.950				0.095	
Satd. Flow (perm)	1770	2787	5085	1583	177	3539
Right Turn on Red		Yes		No		
Satd. Flow (RTOR)		190				
Link Speed (mph)	30		45			45
Link Distance (ft)	1179		993			571
Travel Time (s)	26.8		15.0			8.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	95	190	1741	91	177	1199
Shared Lane Traffic (%)						
Lane Group Flow (vph)	95	190	1741	91	177	1199
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	42		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template						
Leading Detector (ft)	45	45	162	45	45	162
Trailing Detector (ft)	0	0	156	0	0	284
Detector 1 Position(ft)	0	0	-6	0	0	-6
Detector 1 Size(ft)	45	45	51	45	45	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			156			284
Detector 2 Size(ft)			6			-122
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	pt+ov	pm+pt	NA
Protected Phases	4		6	6 4	5	2
Permitted Phases		4			2	
Detector Phase	4	4	6	6 4	5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	5.0	5.0	15.0		3.0	15.0
Minimum Split (s)	11.0	11.0	21.0		9.0	21.0
Total Split (s)	23.0	23.0	71.0		26.0	97.0
Total Split (%)	19.2%	19.2%	59.2%		21.7%	80.8%
Maximum Green (s)	17.0	17.0	65.0		20.0	91.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0
Recall Mode	None	None	C-Min		None	Min
Act Effct Green (s)	10.8	10.8	81.2	98.0	97.2	97.2
Actuated g/C Ratio	0.09	0.09	0.68	0.82	0.81	0.81
v/c Ratio	0.60	0.45	0.51	0.07	0.64	0.42
Control Delay	67.3	10.3	4.0	0.7	31.8	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	67.3	10.3	4.0	0.7	31.8	1.9
LOS	E	B	A	A	C	A
Approach Delay	29.3		3.9			5.7
Approach LOS	C		A			A
Queue Length 50th (ft)	72	0	73	1	35	33
Queue Length 95th (ft)	125	37	78	m6	105	36
Internal Link Dist (ft)	1099		913			491
Turn Bay Length (ft)		125		125	125	
Base Capacity (vph)	250	557	3439	1374	408	2866
Starvation Cap Reductn	0	0	0	0	0	395
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.34	0.51	0.07	0.43	0.49

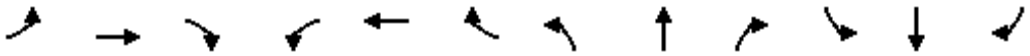
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 42 (35%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 6.7		Intersection LOS: A	
Intersection Capacity Utilization 59.8%		ICU Level of Service B	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 28: Essen & United Plaza North



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	46	1	22	76	3	148	9	1712	55	166	1168	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		100	175		0	150		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	0.95
Frt		0.856				0.850		0.995			0.995	
Flt Protected	0.950				0.954		0.950			0.950		
Satd. Flow (prot)	1770	1595	0	0	1777	1583	1770	5060	0	1770	3522	0
Flt Permitted	0.701				0.715		0.210			0.067		
Satd. Flow (perm)	1306	1595	0	0	1332	1583	391	5060	0	125	3522	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		24						6			5	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		757			843			571			472	
Travel Time (s)		17.2			19.2			8.7			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	50	1	24	83	3	161	10	1861	60	180	1270	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	50	25	0	0	86	161	10	1921	0	180	1312	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	4	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	162		45	390	
Trailing Detector (ft)	0	0		0	0	0	0	156		0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	45	45		20	45	45	45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Detector 3 Position(ft)											308	
Detector 3 Size(ft)											6	
Detector 3 Type											Cl+Ex	
Detector 3 Channel												



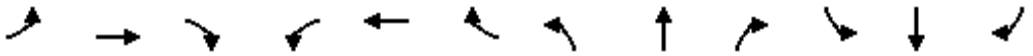
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 3 Extend (s)											0.0	
Detector 4 Position(ft)											384	
Detector 4 Size(ft)											6	
Detector 4 Type											Cl+Ex	
Detector 4 Channel												
Detector 4 Extend (s)											0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		8		7	4	4 5	1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4	4 5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	31.0		11.0	31.0	
Total Split (s)	17.0	17.0		11.0	28.0		11.0	67.0		25.0	81.0	
Total Split (%)	14.2%	14.2%		9.2%	23.3%		9.2%	55.8%		20.8%	67.5%	
Maximum Green (s)	11.0	11.0		5.0	22.0		5.0	61.0		19.0	75.0	
Yellow Time (s)	4.5	4.5		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		2.0	2.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lead		Lag			Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	3.0		0.2	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	13.5	13.5			13.5	30.3	78.7	77.7		91.9	91.9	
Actuated g/C Ratio	0.11	0.11			0.11	0.25	0.66	0.65		0.77	0.77	
v/c Ratio	0.34	0.12			0.57	0.40	0.03	0.59		0.74	0.49	
Control Delay	54.0	18.4			64.7	38.6	4.9	5.1		52.4	4.3	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.1	
Total Delay	54.0	18.4			64.7	38.6	4.9	5.1		52.4	4.3	
LOS	D	B			E	D	A	A		D	A	
Approach Delay		42.2			47.7			5.1			10.1	
Approach LOS		D			D			A			B	
Queue Length 50th (ft)	36	1			64	105	1	85		89	112	
Queue Length 95th (ft)	74	27			114	145	m1	57		157	115	
Internal Link Dist (ft)		677			763			491			392	
Turn Bay Length (ft)	75					100	175			150		
Base Capacity (vph)	152	207			244	501	317	3280		356	2699	
Starvation Cap Reductn	0	0			0	0	0	0		0	216	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.33	0.12			0.35	0.32	0.03	0.59		0.51	0.53	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	

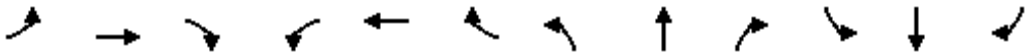
Actuated Cycle Length: 120	
Offset: 32 (27%), Referenced to phase 2:SBTL, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 10.6	Intersection LOS: B
Intersection Capacity Utilization 69.5%	ICU Level of Service C
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 29: Essen & Sholar/Archives



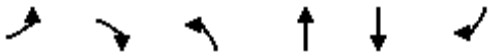
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	285	0	76	0	0	0	0	1190	715	0	1298	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.935							0.850			
Flt Protected	0.950	0.972										
Satd. Flow (prot)	1681	1608	0	0	0	0	0	3539	1583	0	3539	0
Flt Permitted	0.950	0.972										
Satd. Flow (perm)	1681	1608	0	0	0	0	0	3539	1583	0	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36							377			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		995			508			472			1384	
Travel Time (s)		22.6			11.5			7.2			21.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	310	0	83	0	0	0	0	1293	777	0	1411	0
Shared Lane Traffic (%)	35%											
Lane Group Flow (vph)	201	192	0	0	0	0	0	1293	777	0	1411	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1						2	1		2	
Detector Template												
Leading Detector (ft)	45	45						162	45		162	
Trailing Detector (ft)	0	0						156	0		156	
Detector 1 Position(ft)	0	0						-6	0		-6	
Detector 1 Size(ft)	45	45						51	45		51	
Detector 1 Type	Cl+Ex	Cl+Ex						Call	Cl+Ex		Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0		0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA						NA	Free		NA	
Protected Phases		8						6			2	
Permitted Phases	8								Free			
Detector Phase	8	8						6			2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	10.0	10.0						25.0			25.0	
Minimum Split (s)	17.0	17.0						32.0			32.0	
Total Split (s)	37.0	37.0						83.0			83.0	
Total Split (%)	30.8%	30.8%						69.2%			69.2%	
Maximum Green (s)	30.0	30.0						76.0			76.0	
Yellow Time (s)	5.0	5.0						5.0			5.0	
All-Red Time (s)	2.0	2.0						2.0			2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	7.0	7.0						7.0			7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5						5.0			5.0	
Minimum Gap (s)	0.2	0.2						3.0			3.0	
Time Before Reduce (s)	0.0	0.0						15.0			15.0	
Time To Reduce (s)	0.0	0.0						15.0			15.0	
Recall Mode	None	None						C-Max			Max	
Act Effct Green (s)	19.2	19.2						86.8	120.0		86.8	
Actuated g/C Ratio	0.16	0.16						0.72	1.00		0.72	
v/c Ratio	0.75	0.67						0.51	0.49		0.55	
Control Delay	64.7	49.2						3.9	2.0		9.3	
Queue Delay	0.0	0.0						0.1	0.0		0.0	
Total Delay	64.7	49.2						4.0	2.0		9.3	
LOS	E	D						A	A		A	
Approach Delay		57.1						3.2			9.3	
Approach LOS		E						A			A	
Queue Length 50th (ft)	157	121						30	0		233	
Queue Length 95th (ft)	230	192						127	21		355	
Internal Link Dist (ft)		915			428			392			1304	
Turn Bay Length (ft)	400											
Base Capacity (vph)	420	429						2560	1583		2560	
Starvation Cap Reductn	0	0						344	0		0	
Spillback Cap Reductn	0	0						0	0		0	
Storage Cap Reductn	0	0						0	0		0	
Reduced v/c Ratio	0.48	0.45						0.58	0.49		0.55	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 37 (31%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 10.9		Intersection LOS: B	
Intersection Capacity Utilization 57.8%		ICU Level of Service B	
Analysis Period (min) 15			

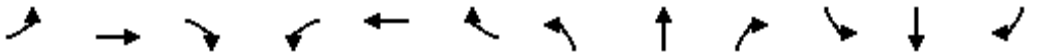
Splits and Phases: 32: Essen & I-12 EB



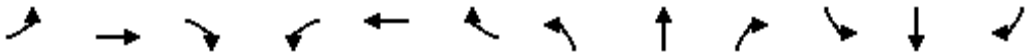
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	62	28	2381	2228	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	50			0
Storage Lanes	0	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91
Frt		0.865			0.998	
Flt Protected			0.950			
Satd. Flow (prot)	0	1611	1770	5085	5075	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	1611	1770	5085	5075	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	421			193	480	
Travel Time (s)	9.6			2.9	7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	67	30	2588	2422	37
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	67	30	2588	2459	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 54.3%		ICU Level of Service A	
Analysis Period (min) 15			

M.11 2017 NO BUILD NOON – BLUEBONNET BOULEVARD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	193	822	349	467	817	272	312	916	239	362	630	151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		250	325		375	350		0	250		150
Storage Lanes	2		1	2		1	2		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Frt			0.850			0.850		0.969				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3429	0	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3429	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			182			131		24				127
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		2445			3864			2201			709	
Travel Time (s)		37.0			58.5			33.3			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	203	865	367	492	860	286	328	964	252	381	663	159
Shared Lane Traffic (%)												
Lane Group Flow (vph)	203	865	367	492	860	286	328	1216	0	381	663	159
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45	45	290		45	290	45
Trailing Detector (ft)	-6	284	-6	-6	284	-6	-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6	-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51	51	51		51	51	51
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		284			284			284			284	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Extend			Extend			Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8		7	4	5
Permitted Phases			2			6						4
Detector Phase	5	2	3	1	6	7	3	8		7	4	5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	10.0	4.0	4.0	10.0	4.0	4.0	10.0		4.0	10.0	4.0
Minimum Split (s)	11.0	34.5	11.0	11.0	37.5	11.0	11.0	41.0		11.0	41.0	11.0
Total Split (s)	17.0	42.0	29.0	27.0	52.0	22.0	29.0	59.0		22.0	52.0	17.0
Total Split (%)	11.3%	28.0%	19.3%	18.0%	34.7%	14.7%	19.3%	39.3%		14.7%	34.7%	11.3%
Maximum Green (s)	10.0	35.5	22.0	20.0	45.5	15.0	22.0	52.0		15.0	45.0	10.0
Yellow Time (s)	5.0	4.5	5.0	5.0	4.5	5.0	5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	6.5	7.0	7.0	6.5	7.0	7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag		Lead	Lead	Lead
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.3	3.0	3.0	4.3	3.0	3.0	3.9		3.0	3.9	3.0
Minimum Gap (s)	0.2	2.2	0.2	0.2	2.2	0.2	0.2	2.2		0.2	2.2	0.2
Time Before Reduce (s)	0.0	15.0	0.0	0.0	15.0	0.0	0.0	25.0		0.0	25.0	0.0
Time To Reduce (s)	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0		0.0	10.0	0.0
Recall Mode	None	Min	None	None	Min	None	None	Min		None	C-Min	None
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		23.0			26.0			29.0			29.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	10.0	35.5	70.8	20.0	45.5	67.0	35.8	52.0		15.0	31.2	41.2
Actuated g/C Ratio	0.07	0.24	0.47	0.13	0.30	0.45	0.24	0.35		0.10	0.21	0.27
v/c Ratio	0.89	1.03	0.44	1.08	0.80	0.37	0.40	1.01		1.11	0.90	0.30
Control Delay	105.4	95.0	8.5	123.6	54.8	15.7	51.0	75.6		144.3	70.4	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	105.4	95.0	8.5	123.6	54.8	15.7	51.0	75.6		144.3	70.4	7.8
LOS	F	F	A	F	D	B	D	E		F	E	A
Approach Delay		74.3			68.6			70.4			85.5	
Approach LOS		E			E			E			F	
Queue Length 50th (ft)	103	~476	57	~275	408	95	140	~630		~210	338	10
Queue Length 95th (ft)	#179	#612	120	#392	492	168	201	#788		#335	324	86
Internal Link Dist (ft)		2365			3784			2121			629	
Turn Bay Length (ft)	440		250	325		375	350			250		150
Base Capacity (vph)	228	837	843	457	1073	779	818	1204		343	1061	526
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.89	1.03	0.44	1.08	0.80	0.37	0.40	1.01		1.11	0.62	0.30

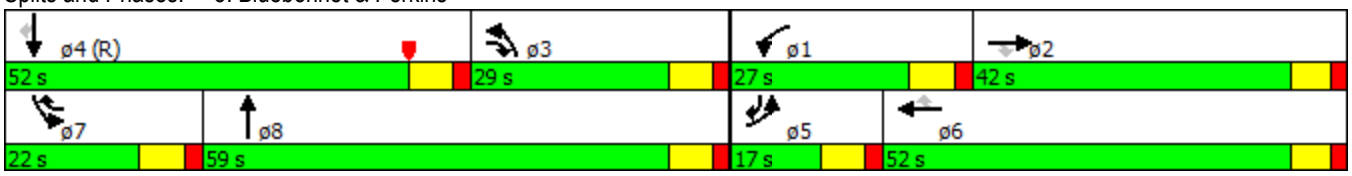
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 52 (35%), Referenced to phase 4:SBT, Start of Yellow			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.11			
Intersection Signal Delay: 74.0		Intersection LOS: E	
Intersection Capacity Utilization 102.2%		ICU Level of Service G	

Analysis Period (min) 15

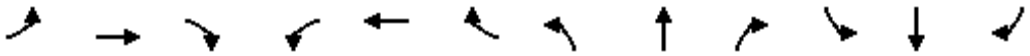
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Bluebonnet & Perkins



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	144	20	48	71	12	179	39	1285	57	337	1023	103
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		125	160		160	175		0
Storage Lanes	1		0	0		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.894				0.850			0.850		0.986	
Flt Protected	0.950				0.959		0.950			0.950		
Satd. Flow (prot)	1770	1665	0	0	1786	1583	1770	3539	1583	3433	3490	0
Flt Permitted	0.700				0.551		0.950			0.950		
Satd. Flow (perm)	1304	1665	0	0	1026	1583	1770	3539	1583	3433	3490	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		51									12	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		511			1048			709			2556	
Travel Time (s)		11.6			23.8			10.7			38.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	152	21	51	75	13	188	41	1353	60	355	1077	108
Shared Lane Traffic (%)												
Lane Group Flow (vph)	152	72	0	0	88	188	41	1353	60	355	1185	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290	45	45	290	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284	-6	-6	284	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6	-6	-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	
Protected Phases		8		7	4	4 5	1	6	6 7	5	2	
Permitted Phases	8			4								
Detector Phase	8	8		7	4	4 5	1	6	6 7	5	2	

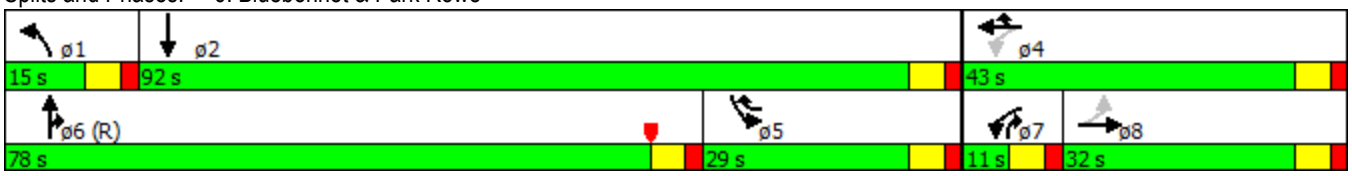


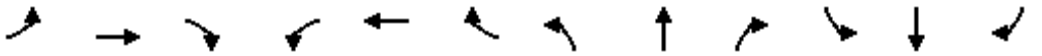
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		3.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	11.0	11.0		9.0	11.0		9.0	21.0		9.0	21.0	
Total Split (s)	32.0	32.0		11.0	43.0		15.0	78.0		29.0	92.0	
Total Split (%)	21.3%	21.3%		7.3%	28.7%		10.0%	52.0%		19.3%	61.3%	
Maximum Green (s)	26.0	26.0		5.0	37.0		9.0	72.0		23.0	86.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		1.5	2.0		1.5	4.0		1.5	4.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	21.1	21.1			30.0	55.2	7.1	82.8	87.8	19.2	96.9	
Actuated g/C Ratio	0.14	0.14			0.20	0.37	0.05	0.55	0.59	0.13	0.65	
v/c Ratio	0.83	0.26			0.39	0.32	0.49	0.69	0.06	0.81	0.52	
Control Delay	95.9	22.9			53.4	33.6	76.7	41.1	11.4	78.1	17.2	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.8	0.0	0.0	0.0	
Total Delay	95.9	22.9			53.4	33.6	76.7	41.9	11.4	78.1	17.2	
LOS	F	C			D	C	E	D	B	E	B	
Approach Delay		72.4			39.9			41.6			31.3	
Approach LOS		E			D			D			C	
Queue Length 50th (ft)	146	18			71	126	41	596	23	176	342	
Queue Length 95th (ft)	224	64			120	175	m52	m403	m24	227	443	
Internal Link Dist (ft)		431			968			629			2476	
Turn Bay Length (ft)	100					125	160		160	175		
Base Capacity (vph)	226	330			274	641	106	1952	928	526	2259	
Starvation Cap Reductn	0	0			0	0	0	298	0	0	0	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.67	0.22			0.32	0.29	0.39	0.82	0.06	0.67	0.52	

Intersection Summary

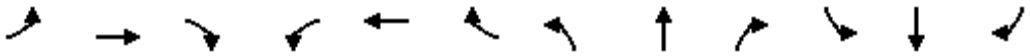
Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 75 (50%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 38.9 Intersection LOS: D
Intersection Capacity Utilization 74.8% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Bluebonnet & Park Rowe





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	177	14	87	23	6	8	64	1534	10	19	1354	153
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	475		475	50		0	425		0	130		130
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.914			0.999				0.850
Flt Protected	0.950	0.959		0.950			0.950			0.950		
Satd. Flow (prot)	1681	1697	1583	1770	1703	0	1770	3536	0	1770	3539	1583
Flt Permitted	0.950	0.959		0.950			0.950			0.950		
Satd. Flow (perm)	1681	1697	1583	1770	1703	0	1770	3536	0	1770	3539	1583
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)					8			1				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1004			740			2556			469	
Travel Time (s)		22.8			16.8			38.7			7.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	186	15	92	24	6	8	67	1615	11	20	1425	161
Shared Lane Traffic (%)	46%											
Lane Group Flow (vph)	100	101	92	24	14	0	67	1626	0	20	1425	161
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	45	45	45		45	290		45	290	45
Trailing Detector (ft)	-6	-6	-6	-6	-6		-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6		-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51		51	51		51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA		Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4		1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4		1	6		5	2	2 8



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.5	25.5		8.5	25.5	
Total Split (s)	15.0	15.0		13.0	13.0		13.0	79.0		13.0	79.0	
Total Split (%)	12.5%	12.5%		10.8%	10.8%		10.8%	65.8%		10.8%	65.8%	
Maximum Green (s)	10.0	10.0		8.0	8.0		7.5	73.5		7.5	73.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	6.0		3.0	6.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	10.8	10.8	23.8	8.2	8.2		7.5	85.5		6.7	77.6	90.1
Actuated g/C Ratio	0.09	0.09	0.20	0.07	0.07		0.06	0.71		0.06	0.65	0.75
v/c Ratio	0.66	0.66	0.29	0.20	0.11		0.60	0.65		0.20	0.62	0.14
Control Delay	74.6	74.4	44.1	56.9	37.3		77.6	12.8		54.5	10.8	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	74.6	74.4	44.1	56.9	37.3		77.6	12.8		54.5	10.8	2.7
LOS	E	E	D	E	D		E	B		D	B	A
Approach Delay		65.0			49.7			15.4			10.6	
Approach LOS		E			D			B			B	
Queue Length 50th (ft)	80	81	61	18	4		52	322		16	542	20
Queue Length 95th (ft)	#171	#173	113	47	26		#116	537		m44	245	23
Internal Link Dist (ft)		924			660			2476			389	
Turn Bay Length (ft)	475		475	50			425			130		130
Base Capacity (vph)	151	152	317	122	125		114	2519		110	2300	1193
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.66	0.66	0.29	0.20	0.11		0.59	0.65		0.18	0.62	0.13

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 109 (91%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 17.6 Intersection LOS: B
Intersection Capacity Utilization 71.3% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Bluebonnet & Anselmo

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Lane Configurations									
Volume (vph)	325	124	1266	454	80	1202			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	0	100		150	350				
Storage Lanes	2	1		1	1				
Taper Length (ft)	25				25				
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.91			
Frt		0.850		0.850					
Flt Protected	0.950				0.950				
Satd. Flow (prot)	3433	1583	3539	1583	1770	5085			
Flt Permitted	0.950				0.950				
Satd. Flow (perm)	3433	1583	3539	1583	1770	5085			
Right Turn on Red		No		No					
Satd. Flow (RTOR)									
Link Speed (mph)	30		45			45			
Link Distance (ft)	352		390			974			
Travel Time (s)	8.0		5.9			14.8			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95			
Adj. Flow (vph)	342	131	1333	478	84	1265			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	342	131	1333	478	84	1265			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Right	Left	Left			
Median Width(ft)	35		20			20			
Link Offset(ft)	0		0			0			
Crosswalk Width(ft)	16		16			16			
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Turning Speed (mph)	15	9		9	15				
Number of Detectors	1	1	2	1	1	2			
Detector Template									
Leading Detector (ft)	45	45	290	45	45	290			
Trailing Detector (ft)	-6	-6	284	-6	-6	284			
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			
Detector 1 Size(ft)	51	51	51	51	51	51			
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call			
Detector 1 Channel									
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)			284			284			
Detector 2 Size(ft)			6			6			
Detector 2 Type			Extend			Extend			
Detector 2 Channel									
Detector 2 Extend (s)			0.0			0.0			
Turn Type	Prot	pt+ov	NA	pt+ov	Prot	NA			
Protected Phases	4	4 3	1	1 4	3	2	5	7	8
Permitted Phases									
Detector Phase	4	4 3	1	1 4	3	2			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Switch Phase									
Minimum Initial (s)	4.0		24.0		4.0	34.0	4.0	4.0	29.0
Minimum Split (s)	10.0		30.0		10.0	40.0	10.0	22.0	35.0
Total Split (s)	35.0		72.0		13.0	85.0	55.0	30.0	35.0
Total Split (%)	29.2%		60.0%		10.8%	70.8%	46%	25%	29%
Maximum Green (s)	30.0		66.0		7.0	79.0	49.0	24.0	29.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0			
Total Lost Time (s)	5.0		6.0		6.0	6.0			
Lead/Lag			Lag		Lead		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	
Vehicle Extension (s)	2.5		4.3		2.0	4.3	2.5	3.0	4.3
Minimum Gap (s)	0.2		2.2		0.2	2.2	0.2	3.0	2.2
Time Before Reduce (s)	0.0		20.0		0.0	30.0	0.0	0.0	30.0
Time To Reduce (s)	0.0		15.0		0.0	15.0	0.0	0.0	15.0
Recall Mode	None		Min		None	C-Min	Max	None	Min
Walk Time (s)								5.0	
Flash Dont Walk (s)								11.0	
Pedestrian Calls (#/hr)								0	
Act Effct Green (s)	30.0	44.9	64.1	99.1	8.9	79.0			
Actuated g/C Ratio	0.25	0.37	0.53	0.83	0.07	0.66			
v/c Ratio	0.40	0.22	0.71	0.37	0.64	0.38			
Control Delay	20.2	11.1	15.1	2.2	88.6	2.6			
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay	20.2	11.1	15.1	2.2	88.6	2.6			
LOS	C	B	B	A	F	A			
Approach Delay	17.7		11.7			8.0			
Approach LOS	B		B			A			
Queue Length 50th (ft)	58	29	261	31	67	32			
Queue Length 95th (ft)	90	65	137	26	#162	34			
Internal Link Dist (ft)	272		310			894			
Turn Bay Length (ft)		100		150	350				
Base Capacity (vph)	858	592	1946	1269	132	3347			
Starvation Cap Reductn	0	0	0	0	0	0			
Spillback Cap Reductn	0	0	0	0	0	0			
Storage Cap Reductn	0	0	0	0	0	0			
Reduced v/c Ratio	0.40	0.22	0.68	0.38	0.64	0.38			

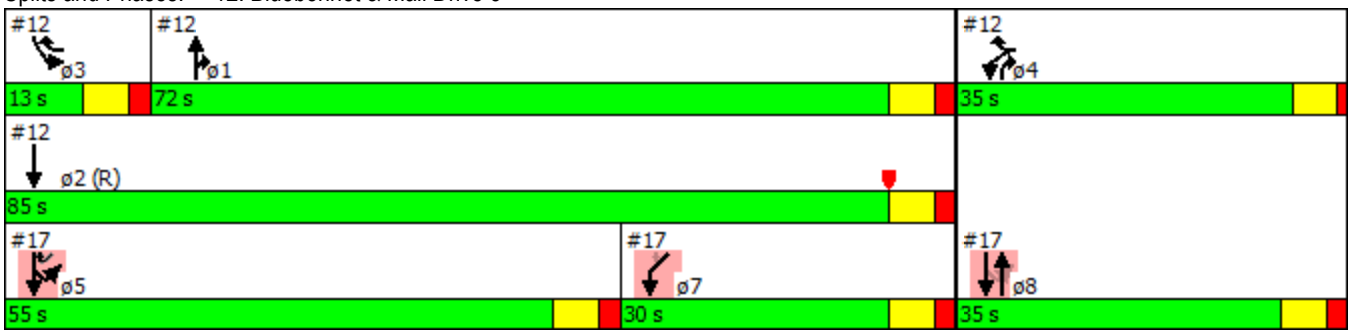
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 108 (90%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 11.1		Intersection LOS: B	
Intersection Capacity Utilization 62.9%		ICU Level of Service B	

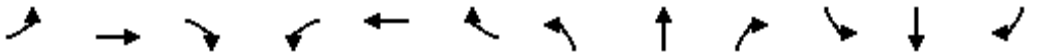
Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

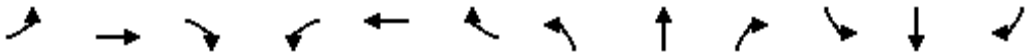
Splits and Phases: 12: Bluebonnet & Mall Drive 3





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	409	146	202	73	156	42	209	1134	48	207	1008	421
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	140		140	200		200	200		160
Storage Lanes	2		0	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		0.913				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3231	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3231	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		213										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1050			403			974			1065	
Travel Time (s)		23.9			9.2			14.8			16.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	431	154	213	77	164	44	220	1194	51	218	1061	443
Shared Lane Traffic (%)												
Lane Group Flow (vph)	431	367	0	77	164	44	220	1194	51	218	1061	443
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			36			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pt+ov
Protected Phases	3	2		9	8	8 6	1	10	10 9	6	5	5 3
Permitted Phases												
Detector Phase	3	2		9	8	8 6	1	10	10 9	6	5	5 3

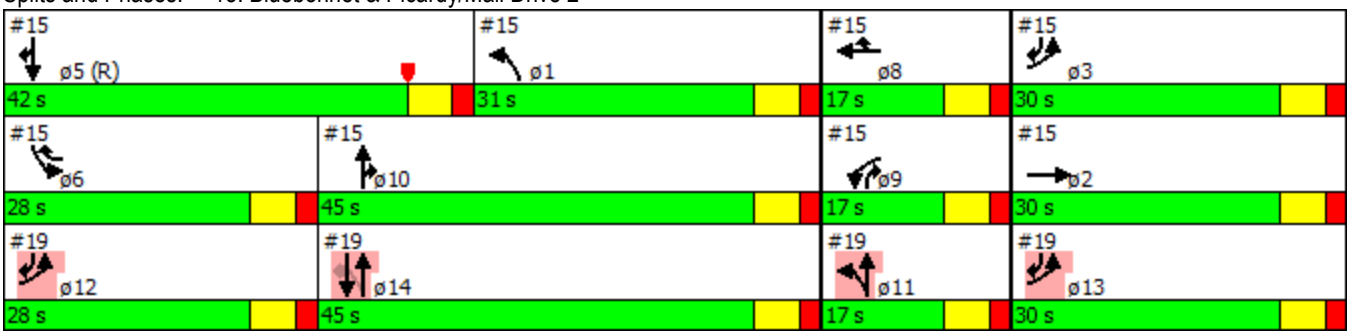
Lane Group	ø11	ø12	ø13	ø14
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	11	12	13	14
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	21.0		3.0	21.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		11.0	27.0		11.0	27.0	
Total Split (s)	30.0	30.0		17.0	17.0		31.0	45.0		28.0	42.0	
Total Split (%)	25.0%	25.0%		14.2%	14.2%		25.8%	37.5%		23.3%	35.0%	
Maximum Green (s)	24.0	24.0		11.0	11.0		25.0	39.0		22.0	36.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.0		1.0	1.0		3.0	4.3		1.0	4.3	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	28.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	15.0	
Recall Mode	None	None		None	None		None	None		None	C-Min	
Act Effct Green (s)	21.6	21.6		8.5	8.9	35.2	19.8	39.3	53.8	26.3	45.7	73.3
Actuated g/C Ratio	0.18	0.18		0.07	0.07	0.29	0.16	0.33	0.45	0.22	0.38	0.61
v/c Ratio	0.70	0.49		0.32	0.63	0.09	0.75	0.72	0.07	0.29	0.55	0.46
Control Delay	52.1	19.5		33.2	41.7	19.7	43.0	20.3	5.1	48.0	16.6	9.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.1	19.5		33.2	41.7	19.7	43.0	20.3	5.1	48.0	16.6	9.7
LOS	D	B		C	D	B	D	C	A	D	B	A
Approach Delay		37.1			36.0			23.2			18.8	
Approach LOS		D			D			C			B	
Queue Length 50th (ft)	161	54		29	70	26	165	125	4	64	133	50
Queue Length 95th (ft)	213	100		m49	101	m51	223	220	m9	103	116	149
Internal Link Dist (ft)		970			323			894			985	
Turn Bay Length (ft)	150			140		140	200		200	200		160
Base Capacity (vph)	716	842		314	324	535	368	1783	735	847	1958	961
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.44		0.25	0.51	0.08	0.60	0.67	0.07	0.26	0.54	0.46

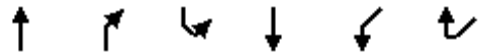
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 80 (67%), Referenced to phase 5:SBT, Start of Yellow			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 24.9		Intersection LOS: C	
Intersection Capacity Utilization 67.0%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 15: Bluebonnet & Picardy/Mall Drive 2

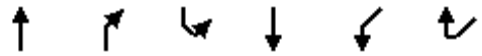


Lane Group	ø11	ø12	ø13	ø14
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	3.0
Minimum Split (s)	10.0	22.0	10.0	9.0
Total Split (s)	17.0	28.0	30.0	45.0
Total Split (%)	14%	23%	25%	38%
Maximum Green (s)	11.0	22.0	24.0	39.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	1.0
Minimum Gap (s)	3.0	3.0	3.0	0.2
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	Max	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



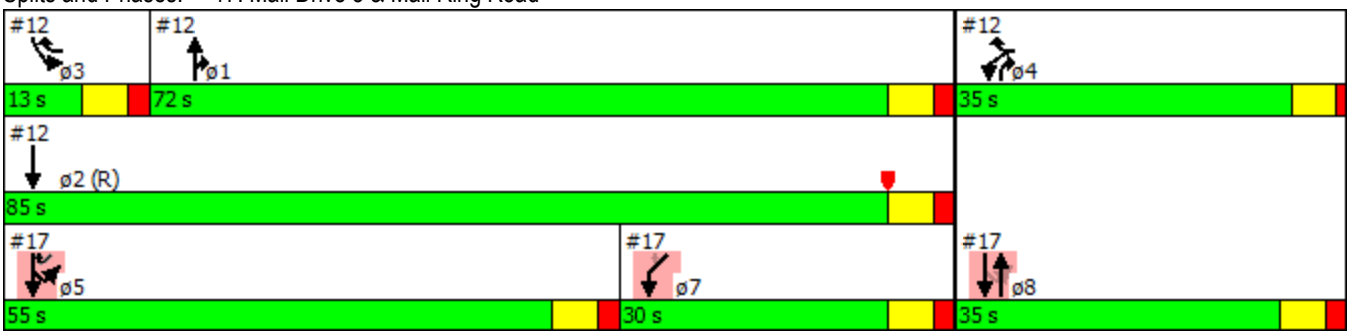
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Lane Configurations										
Volume (vph)	255	154	273	261	187	194				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00				
Frt	0.944					0.850				
Flt Protected			0.950		0.950					
Satd. Flow (prot)	3341	0	1770	1863	1770	1583				
Flt Permitted			0.366		0.950					
Satd. Flow (perm)	3341	0	682	1863	1770	1583				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)	99					211				
Link Speed (mph)	30			30	30					
Link Distance (ft)	797			352	1050					
Travel Time (s)	18.1			8.0	23.9					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Adj. Flow (vph)	277	167	297	284	203	211				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	444	0	297	284	203	211				
Enter Blocked Intersection	No	No	No	No	No	No				
Lane Alignment	Left	Right	Left	Left	Left	Right				
Median Width(ft)	0			12	12					
Link Offset(ft)	0			0	0					
Crosswalk Width(ft)	16			16	16					
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)		9	15		15	9				
Number of Detectors	2		1	2	1	1				
Detector Template	Thru		Left	Thru	Left	Right				
Leading Detector (ft)	100		20	100	20	20				
Trailing Detector (ft)	0		0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0				
Detector 1 Size(ft)	6		20	6	20	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel										
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0				
Detector 2 Position(ft)	94			94						
Detector 2 Size(ft)	6			6						
Detector 2 Type	Cl+Ex			Cl+Ex						
Detector 2 Channel										
Detector 2 Extend (s)	0.0			0.0						
Turn Type	NA		D.P+P	NA	Prot	pm+ov				
Protected Phases	8		5	5 8	7	5	1	2	3	4
Permitted Phases			8			7				
Detector Phase	8		5	5 8	7	5				
Switch Phase										
Minimum Initial (s)	29.0		4.0		4.0	4.0	24.0	34.0	4.0	4.0
Minimum Split (s)	35.0		10.0		22.0	10.0	30.0	40.0	10.0	10.0

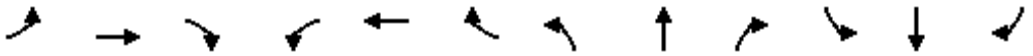


Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Total Split (s)	35.0		55.0		30.0	55.0	72.0	85.0	13.0	35.0
Total Split (%)	29.2%		45.8%		25.0%	45.8%	60%	71%	11%	29%
Maximum Green (s)	29.0		49.0		24.0	49.0	66.0	79.0	7.0	30.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0		2.0	2.0	2.0	2.0	2.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0				
Total Lost Time (s)	6.0		6.0		6.0	6.0				
Lead/Lag			Lead		Lag	Lead	Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	Yes				
Vehicle Extension (s)	4.3		2.5		3.0	2.5	4.3	4.3	2.0	2.5
Minimum Gap (s)	2.2		0.2		3.0	0.2	2.2	2.2	0.2	0.2
Time Before Reduce (s)	30.0		0.0		0.0	0.0	20.0	30.0	0.0	0.0
Time To Reduce (s)	15.0		0.0		0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	Min		Max		None	Max	Min	C-Min	None	None
Walk Time (s)					5.0					
Flash Dont Walk (s)					11.0					
Pedestrian Calls (#/hr)					0					
Act Effct Green (s)	29.0		83.4	89.4	18.6	79.0				
Actuated g/C Ratio	0.24		0.70	0.74	0.16	0.66				
v/c Ratio	0.50		0.31	0.20	0.74	0.19				
Control Delay	32.4		10.9	7.0	62.6	6.7				
Queue Delay	0.0		0.5	0.6	0.0	0.0				
Total Delay	32.4		11.4	7.6	62.6	6.7				
LOS	C		B	A	E	A				
Approach Delay	32.4			9.5	34.1					
Approach LOS	C			A	C					
Queue Length 50th (ft)	121		63	60	119	24				
Queue Length 95th (ft)	174		151	143	163	48				
Internal Link Dist (ft)	717			272	970					
Turn Bay Length (ft)										
Base Capacity (vph)	882		966	1387	354	1114				
Starvation Cap Reductn	0		325	757	0	0				
Spillback Cap Reductn	0		0	0	0	0				
Storage Cap Reductn	0		0	0	0	0				
Reduced v/c Ratio	0.50		0.46	0.45	0.57	0.19				

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 108 (90%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 23.6		Intersection LOS: C	
Intersection Capacity Utilization 64.7%		ICU Level of Service C	
Analysis Period (min) 15			

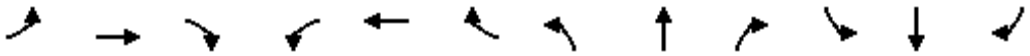
Splits and Phases: 17: Mall Drive 3 & Mall Ring Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	1535	30	218	1627	21	0	0	411	33	4	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		200	300		100	0		0	65		0
Storage Lanes	1		1	2		1	0		2	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.900	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1676	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1676	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			136			27			383		8	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1065			834			318			371	
Travel Time (s)		16.1			12.6			7.2			8.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	21	1616	32	229	1713	22	0	0	433	35	4	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	21	1616	32	229	1713	22	0	0	433	35	12	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1			1	1	1	
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45			45	45	45	
Trailing Detector (ft)	-6	284	-6	-6	284	-6			-6	-6	-6	
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			-6	-6	-6	
Detector 1 Size(ft)	51	51	51	51	51	51			51	51	51	
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA	Perm	Prot	NA	custom			Over	Perm	NA	
Protected Phases	1	7		5	4	2			5		2	
Permitted Phases			7			4				2		
Detector Phase	1	7	7	5	4	2			5	2	2	

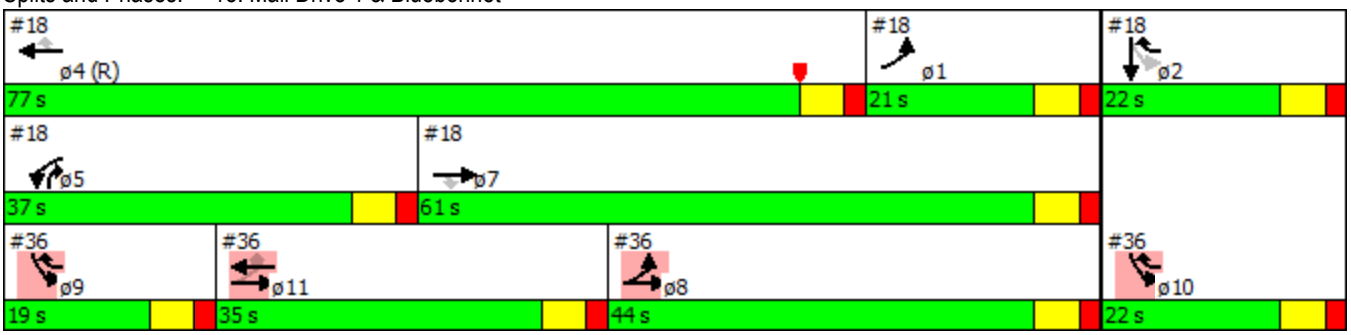
Lane Group	ø8	ø9	ø10	ø11
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	8	9	10	11
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	14.0	4.0	14.0	4.0			4.0	4.0	4.0	
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	10.0			10.0	10.0	10.0	
Total Split (s)	21.0	61.0	61.0	37.0	77.0	22.0			37.0	22.0	22.0	
Total Split (%)	17.5%	50.8%	50.8%	30.8%	64.2%	18.3%			30.8%	18.3%	18.3%	
Maximum Green (s)	15.0	55.0	55.0	31.0	71.0	16.0			31.0	16.0	16.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0			6.0	6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	4.3	4.3	2.5	4.3	2.0			2.5	2.0	2.0	
Minimum Gap (s)	0.2	2.2	2.2	0.2	2.2	0.2			0.2	0.2	0.2	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	34.0	0.0			0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	15.0	0.0			0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Min	None			None	None	None	
Act Effct Green (s)	14.5	78.0	78.0	13.4	83.9	104.1			13.4	10.6	10.6	
Actuated g/C Ratio	0.12	0.65	0.65	0.11	0.70	0.87			0.11	0.09	0.09	
v/c Ratio	0.10	0.49	0.03	0.60	0.48	0.02			0.66	0.23	0.08	
Control Delay	37.4	6.8	0.0	63.1	7.0	0.0			15.9	52.9	31.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Delay	37.4	6.8	0.0	63.1	7.0	0.0			15.9	52.9	31.4	
LOS	D	A	A	E	A	A			B	D	C	
Approach Delay		7.1			13.4						47.4	
Approach LOS		A			B						D	
Queue Length 50th (ft)	17	161	0	80	26	0			29	26	3	
Queue Length 95th (ft)	m15	169	m0	114	457	m1			88	57	22	
Internal Link Dist (ft)		985			754			238			291	
Turn Bay Length (ft)	140		200	300		100				65		
Base Capacity (vph)	296	3305	1076	886	3730	1358			1004	236	230	
Starvation Cap Reductn	0	0	0	0	0	0			20	0	0	
Spillback Cap Reductn	0	0	0	0	0	0			0	0	0	
Storage Cap Reductn	0	0	0	0	0	0			0	0	0	
Reduced v/c Ratio	0.07	0.49	0.03	0.26	0.46	0.02			0.44	0.15	0.05	

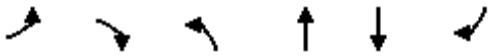
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 103 (86%), Referenced to phase 4:WBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 11.5		Intersection LOS: B	
Intersection Capacity Utilization 62.4%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 18: Mall Drive 1 & Bluebonnet



Lane Group	ø8	ø9	ø10	ø11
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	14.0
Minimum Split (s)	22.0	10.0	22.0	20.0
Total Split (s)	44.0	19.0	22.0	35.0
Total Split (%)	37%	16%	18%	29%
Maximum Green (s)	38.0	13.0	16.0	29.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	4.3
Minimum Gap (s)	3.0	3.0	3.0	2.2
Time Before Reduce (s)	0.0	0.0	0.0	34.0
Time To Reduce (s)	0.0	0.0	0.0	15.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Lane Configurations												
Volume (vph)	243	158	187	239	223	83						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Frt		0.850				0.850						
Flt Protected	0.950		0.950									
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583						
Flt Permitted	0.950		0.427									
Satd. Flow (perm)	1770	1583	795	1863	1863	1583						
Right Turn on Red		Yes				Yes						
Satd. Flow (RTOR)		172				90						
Link Speed (mph)	30			30	30							
Link Distance (ft)	403			1050	819							
Travel Time (s)	9.2			23.9	18.6							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	264	172	203	260	242	90						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	264	172	203	260	242	90						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Right	Left	Left	Left	Right						
Median Width(ft)	36			12	0							
Link Offset(ft)	0			0	0							
Crosswalk Width(ft)	16			16	16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15	9	15			9						
Number of Detectors	1	1	1	2	2	1						
Detector Template	Left	Right	Left	Thru	Thru	Right						
Leading Detector (ft)	20	20	20	100	100	20						
Trailing Detector (ft)	0	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0	0						
Detector 1 Size(ft)	20	20	20	6	6	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)				94	94							
Detector 2 Size(ft)				6	6							
Detector 2 Type				Cl+Ex	Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)				0.0	0.0							
Turn Type	Prot	Free	D.P+P	NA	NA	pm+ov						
Protected Phases	12 13		11	11 14	14	12 13	1	2	3	5	6	8
Permitted Phases		Free	14			14						
Detector Phase	12 13		11	11 14	14	12 13						
Switch Phase												
Minimum Initial (s)			4.0		3.0		3.0	3.0	3.0	21.0	3.0	3.0
Minimum Split (s)			10.0		9.0		11.0	9.0	9.0	27.0	11.0	9.0

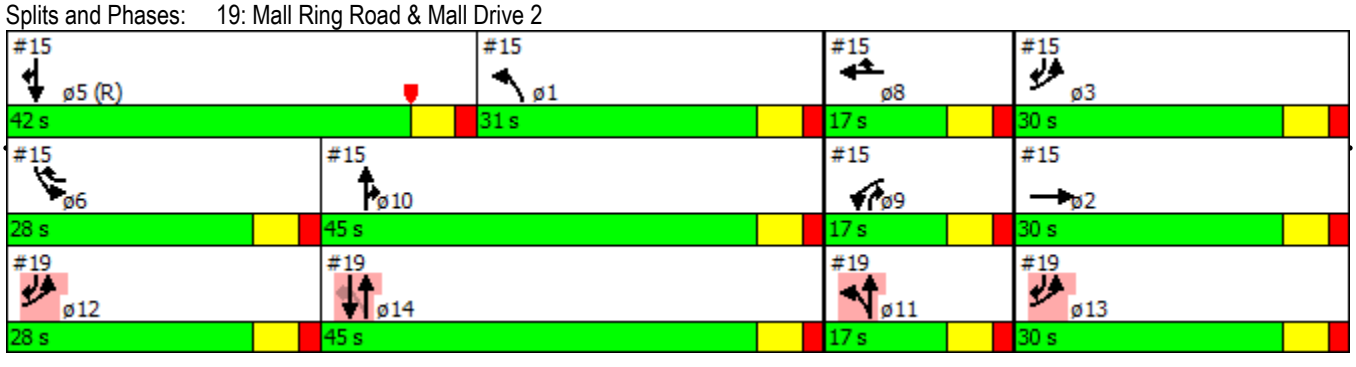
Lane Group	ø9	ø10	ø12	ø13
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	9	10	12	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	21.0	4.0	4.0
Minimum Split (s)	9.0	27.0	22.0	10.0

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Total Split (s)			17.0		45.0		31.0	30.0	30.0	42.0	28.0	17.0
Total Split (%)			14.2%		37.5%		26%	25%	25%	35%	23%	14%
Maximum Green (s)			11.0		39.0		25.0	24.0	24.0	36.0	22.0	11.0
Yellow Time (s)			4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)			2.0		2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0		0.0							
Total Lost Time (s)			6.0		6.0							
Lead/Lag					Lag		Lag			Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0		1.0		3.0	1.0	1.5	4.3	1.0	1.0
Minimum Gap (s)			3.0		0.2		0.2	0.2	0.2	2.2	0.2	0.2
Time Before Reduce (s)			0.0		0.0		0.0	0.0	0.0	28.0	0.0	0.0
Time To Reduce (s)			0.0		0.0		0.0	0.0	0.0	15.0	0.0	0.0
Recall Mode			None		None		None	None	None	C-Min	None	None
Act Effct Green (s)	65.2	120.0	36.8	42.8	27.8	99.1						
Actuated g/C Ratio	0.54	1.00	0.31	0.36	0.23	0.83						
v/c Ratio	0.27	0.11	0.64	0.39	0.56	0.07						
Control Delay	9.0	0.1	53.2	38.0	40.2	0.1						
Queue Delay	0.2	0.0	0.0	0.0	0.0	0.0						
Total Delay	9.1	0.1	53.2	38.0	40.2	0.1						
LOS	A	A	D	D	D	A						
Approach Delay	5.6			44.7	29.3							
Approach LOS	A			D	C							
Queue Length 50th (ft)	50	0	131	170	197	0						
Queue Length 95th (ft)	75	0	208	262	270	0						
Internal Link Dist (ft)	323			970	739							
Turn Bay Length (ft)												
Base Capacity (vph)	948	1583	346	725	605	1311						
Starvation Cap Reductn	186	0	0	0	0	0						
Spillback Cap Reductn	0	0	0	0	0	0						
Storage Cap Reductn	0	0	0	0	0	0						
Reduced v/c Ratio	0.35	0.11	0.59	0.36	0.40	0.07						

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 80 (67%), Referenced to phase 5:SBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 26.7 Intersection LOS: C
Intersection Capacity Utilization 50.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 19: Mall Ring Road & Mall Drive 2

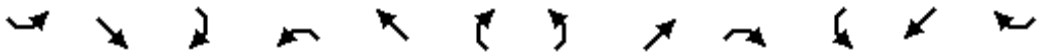


Lane Group	ø9	ø10	ø12	ø13
Total Split (s)	17.0	45.0	28.0	30.0
Total Split (%)	14%	38%	23%	25%
Maximum Green (s)	11.0	39.0	22.0	24.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?			Yes	
Vehicle Extension (s)	1.0	4.3	3.0	3.0
Minimum Gap (s)	0.2	0.2	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	Max	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	173	9	609	0	0	0	0	1790	188	294	1256	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		0	0		0	400		0	300		0
Storage Lanes	1		1	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950	0.957								0.950		
Satd. Flow (prot)	1681	1694	1583	0	0	0	0	6408	1583	1770	3539	0
Flt Permitted	0.950	0.957								0.950		
Satd. Flow (perm)	1681	1694	1583	0	0	0	0	6408	1583	1770	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			461						198			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1072			1024			834			410	
Travel Time (s)		24.4			23.3			12.6			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	182	9	641	0	0	0	0	1884	198	309	1322	0
Shared Lane Traffic (%)	48%											
Lane Group Flow (vph)	95	96	641	0	0	0	0	1884	198	309	1322	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			25	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					2	1	1	2	
Detector Template												
Leading Detector (ft)	45	45	45					290	45	45	290	
Trailing Detector (ft)	-6	-6	-6					284	-6	-6	284	
Detector 1 Position(ft)	-6	-6	-6					-6	-6	-6	-6	
Detector 1 Size(ft)	51	51	51					51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA	Free					NA	Perm	Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2			
Detector Phase	4	4						2	2	1	6	

Lane Group	ø5	ø8
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	5	8
Permitted Phases		
Detector Phase		

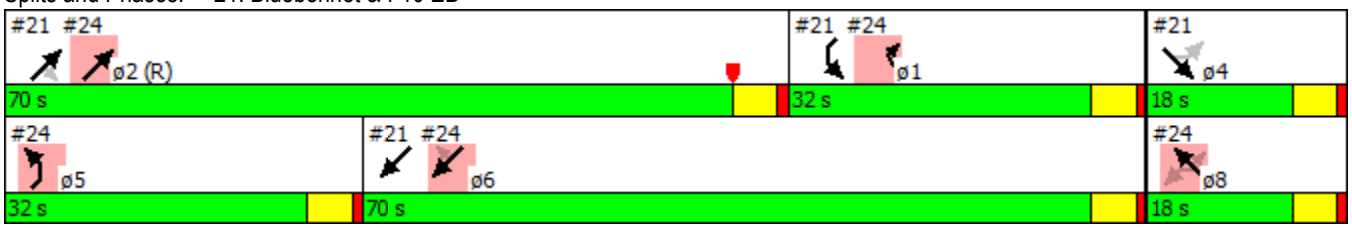


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)	3.0	3.0						10.0	10.0	3.0	10.0	
Minimum Split (s)	18.0	18.0						20.0	20.0	8.0	20.0	
Total Split (s)	18.0	18.0						70.0	70.0	32.0	70.0	
Total Split (%)	15.0%	15.0%						58.3%	58.3%	26.7%	58.3%	
Maximum Green (s)	13.0	13.0						65.0	65.0	27.0	65.0	
Yellow Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0	2.0	2.0	6.0	
Recall Mode	None	None						C-Max	C-Max	None	Max	
Act Effct Green (s)	10.6	10.6	120.0					67.4	67.4	27.0	65.0	
Actuated g/C Ratio	0.09	0.09	1.00					0.56	0.56	0.22	0.54	
v/c Ratio	0.64	0.64	0.40					0.52	0.20	0.78	0.69	
Control Delay	71.6	71.7	0.8					14.5	3.3	36.1	7.0	
Queue Delay	0.0	0.0	0.0					0.0	0.0	0.3	0.5	
Total Delay	71.6	71.7	0.8					14.5	3.3	36.4	7.5	
LOS	E	E	A					B	A	D	A	
Approach Delay		17.0						13.4			12.9	
Approach LOS		B						B			B	
Queue Length 50th (ft)	75	76	0					179	24	231	60	
Queue Length 95th (ft)	134	135	0					192	35	m#302	66	
Internal Link Dist (ft)		992			944			754			330	
Turn Bay Length (ft)	375									300		
Base Capacity (vph)	182	183	1583					3597	975	398	1916	
Starvation Cap Reductn	0	0	0					0	0	5	213	
Spillback Cap Reductn	0	0	0					47	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.52	0.52	0.40					0.53	0.20	0.79	0.78	

Intersection Summary

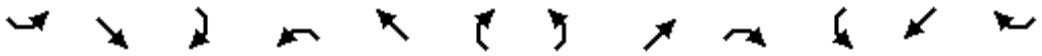
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 28 (23%), Referenced to phase 2:NET, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 13.9 Intersection LOS: B
Intersection Capacity Utilization 70.7% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: Bluebonnet & I-10 EB



Lane Group	ø5	ø8
Switch Phase		
Minimum Initial (s)	3.0	3.0
Minimum Split (s)	8.0	18.0
Total Split (s)	32.0	18.0
Total Split (%)	27%	15%
Maximum Green (s)	27.0	13.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?		
Vehicle Extension (s)	3.5	2.0
Recall Mode	Max	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	0	0	157	2	320	537	1426	0	0	1393	198
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		525	300		0	0		575
Storage Lanes	0		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt						0.850						0.850
Flt Protected				0.950	0.953		0.950					
Satd. Flow (prot)	0	0	0	1681	1686	1583	3433	3539	0	0	3539	1583
Flt Permitted				0.950	0.953		0.950					
Satd. Flow (perm)	0	0	0	1681	1686	1583	3433	3539	0	0	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						64						208
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		894			1008			410			866	
Travel Time (s)		20.3			22.9			6.2			13.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	165	2	337	565	1501	0	0	1466	208
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	0	0	84	83	337	565	1501	0	0	1466	208
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			40			50	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			2	1
Detector Template												
Leading Detector (ft)				45	45	45	45	290			290	45
Trailing Detector (ft)				-6	-6	-6	-6	284			284	-6
Detector 1 Position(ft)				-6	-6	-6	-6	-6			-6	-6
Detector 1 Size(ft)				51	51	51	51	51			51	51
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call			Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type				Perm	NA	custom	Prot	NA			NA	Perm
Protected Phases					8	1	5	2			6	
Permitted Phases				8		8						6
Detector Phase				8	8	1	5	2			6	6

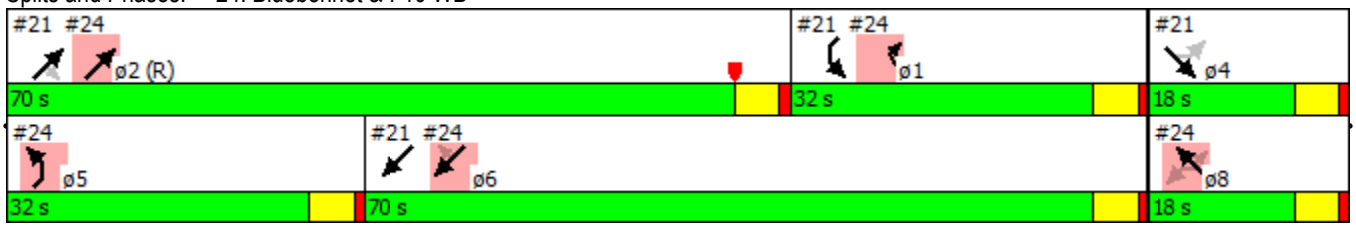
Lane Group	ø4
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)				3.0	3.0	3.0	3.0	10.0			10.0	10.0
Minimum Split (s)				18.0	18.0	8.0	8.0	20.0			20.0	20.0
Total Split (s)				18.0	18.0	32.0	32.0	70.0			70.0	70.0
Total Split (%)				15.0%	15.0%	26.7%	26.7%	58.3%			58.3%	58.3%
Maximum Green (s)				13.0	13.0	27.0	27.0	65.0			65.0	65.0
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
All-Red Time (s)				1.0	1.0	1.0	1.0	1.0			1.0	1.0
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)				5.0	5.0	5.0	5.0	5.0			5.0	5.0
Lead/Lag						Lag	Lead	Lead			Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0	2.0	3.5	2.0			6.0	6.0
Recall Mode				None	None	None	Max	C-Max			Max	Max
Act Effct Green (s)				10.6	10.6	42.6	29.4	67.4			65.0	65.0
Actuated g/C Ratio				0.09	0.09	0.36	0.24	0.56			0.54	0.54
v/c Ratio				0.56	0.56	0.56	0.67	0.76			0.77	0.22
Control Delay				66.6	66.2	28.5	34.2	8.2			23.3	2.2
Queue Delay				0.0	0.0	0.0	0.1	0.0			0.0	0.0
Total Delay				66.6	66.2	28.5	34.3	8.2			23.4	2.2
LOS				E	E	C	C	A			C	A
Approach Delay					41.0			15.3			20.8	
Approach LOS					D			B			C	
Queue Length 50th (ft)				66	65	167	102	168			566	14
Queue Length 95th (ft)				121	121	257	176	189			656	17
Internal Link Dist (ft)		814			928			330			786	
Turn Bay Length (ft)						525	300					575
Base Capacity (vph)				182	182	603	840	1986			1916	952
Starvation Cap Reductn				0	0	0	13	0			0	0
Spillback Cap Reductn				0	0	0	0	0			19	0
Storage Cap Reductn				0	0	0	0	0			0	0
Reduced v/c Ratio				0.46	0.46	0.56	0.68	0.76			0.77	0.22

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 28 (23%), Referenced to phase 2:NET, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 20.5 Intersection LOS: C
Intersection Capacity Utilization 70.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 24: Bluebonnet & I-10 WB



Lane Group	ø4
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	18.0
Total Split (s)	18.0
Total Split (%)	15%
Maximum Green (s)	13.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	69	27	73	181	10	55	77	1495	174	70	1338	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		200	300		175	175		175
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.890			0.897	0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3150	0	3433	1587	1504	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.114			0.081		
Satd. Flow (perm)	1770	3150	0	3433	1587	1504	212	3539	1583	151	3539	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		77										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		475			1072			866			1049	
Travel Time (s)		10.8			24.4			13.1			15.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	73	28	77	191	11	58	81	1574	183	74	1408	25
Shared Lane Traffic (%)						42%						
Lane Group Flow (vph)	73	105	0	191	35	34	81	1574	183	74	1408	25
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		60			60			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4		3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases							2			6		
Detector Phase	7	4		3	8	8 1	5	2	2 3	1	6	6 7

Lanes, Volumes, Timings
27: Bluebonnet & Blue Cross

2017 No Build Noon

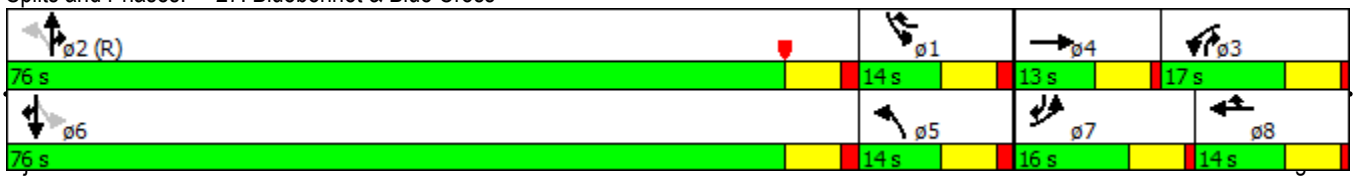
4/19/2016

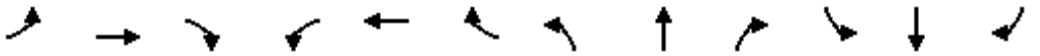
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	5.0		5.0	3.0		3.0	20.0		5.0	20.0	
Minimum Split (s)	8.9	10.9		10.9	8.9		9.6	26.6		11.6	26.6	
Total Split (s)	16.0	13.0		17.0	14.0		14.0	76.0		14.0	76.0	
Total Split (%)	13.3%	10.8%		14.2%	11.7%		11.7%	63.3%		11.7%	63.3%	
Maximum Green (s)	10.1	7.1		11.1	8.1		7.4	69.4		7.4	69.4	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	0.9	0.9		0.9	0.9		1.6	1.6		1.6	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.9	5.9		5.9	5.9		6.6	6.6		6.6	6.6	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		2.5	1.5		1.5	5.0		1.5	5.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	8.4	5.7		10.8	10.3	15.9	83.1	74.7	91.4	77.9	71.8	80.8
Actuated g/C Ratio	0.07	0.05		0.09	0.09	0.13	0.69	0.62	0.76	0.65	0.60	0.67
v/c Ratio	0.59	0.47		0.62	0.26	0.17	0.31	0.71	0.15	0.41	0.67	0.02
Control Delay	73.1	26.3		61.8	58.7	33.5	8.1	7.0	2.2	26.1	21.2	4.1
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.1	26.3		61.8	58.7	33.5	8.1	7.0	2.2	26.1	21.2	4.1
LOS	E	C		E	E	C	A	A	A	C	C	A
Approach Delay		45.5			57.7			6.6			21.1	
Approach LOS		D			E			A			C	
Queue Length 50th (ft)	56	11		74	27	20	7	114	20	22	481	3
Queue Length 95th (ft)	105	40		113	64	45	m11	129	m27	42	501	m1
Internal Link Dist (ft)		395			992			786			969	
Turn Bay Length (ft)	75			200		200	300		175	175		175
Base Capacity (vph)	149	258		327	137	211	271	2203	1179	199	2157	1107
Starvation Cap Reductn	0	0		0	0	0	0	30	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.41		0.58	0.26	0.16	0.30	0.72	0.16	0.37	0.65	0.02

Intersection Summary

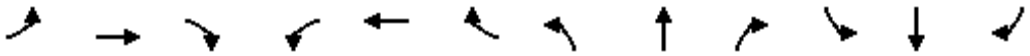
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 41 (34%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 17.7 Intersection LOS: B
Intersection Capacity Utilization 73.2% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 27: Bluebonnet & Blue Cross





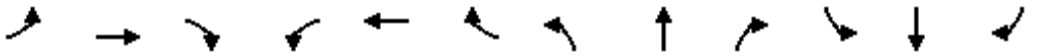
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	3	10	27	0	8	17	1581	20	5	1395	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		130	150		185
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.945			0.970				0.850			0.850
Flt Protected		0.976			0.963		0.950			0.950		
Satd. Flow (prot)	0	1718	0	0	1740	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.829			0.757		0.168			0.133		
Satd. Flow (perm)	0	1459	0	0	1368	0	313	3539	1583	248	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			27				27			27
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1129			1330			1049			1811	
Travel Time (s)		25.7			30.2			15.9			27.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	13	3	11	28	0	8	18	1664	21	5	1468	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	27	0	0	36	0	18	1664	21	5	1468	8
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



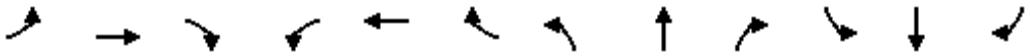
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	11.0	11.0		11.0	11.0		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.0	24.0		24.0	24.0		84.0	84.0	84.0	84.0	84.0	84.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		6.7			6.7		108.1	108.1	108.1	108.1	108.1	108.1
Actuated g/C Ratio		0.06			0.06		0.90	0.90	0.90	0.90	0.90	0.90
v/c Ratio		0.29			0.35		0.06	0.52	0.01	0.02	0.46	0.01
Control Delay		45.1			34.0		1.6	2.0	0.4	3.4	3.6	0.9
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		45.1			34.0		1.6	2.0	0.4	3.4	3.6	0.9
LOS		D			C		A	A	A	A	A	A
Approach Delay		45.1			34.0			1.9			3.5	
Approach LOS		D			C			A			A	
Queue Length 50th (ft)		12			7		3	175	1	0	111	0
Queue Length 95th (ft)		42			41		m0	13	m0	m2	300	m1
Internal Link Dist (ft)		1049			1250			969			1731	
Turn Bay Length (ft)							150		130	150		185
Base Capacity (vph)		300			295		282	3189	1429	223	3189	1429
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.09			0.12		0.06	0.52	0.01	0.02	0.46	0.01

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 65 (54%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 3.4		Intersection LOS: A	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 30: Bluebonnet & Gail



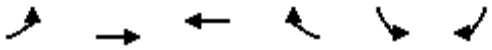
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	14	1	51	14	1	14	59	1524	17	8	1344	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.896			0.935				0.850			0.850
Flt Protected		0.989			0.976		0.950			0.950		
Satd. Flow (prot)	0	1651	0	0	1700	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.917			0.838		0.176			0.140		
Satd. Flow (perm)	0	1530	0	0	1460	0	328	3539	1583	261	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		54			15				29			29
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1794			2049			1811			2409	
Travel Time (s)		40.8			46.6			27.4			36.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	15	1	54	15	1	15	62	1604	18	8	1415	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	70	0	0	31	0	62	1604	18	8	1415	28
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	9.2	9.2		9.2	9.2		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	34.0	34.0		34.0	34.0		86.0	86.0	86.0	86.0	86.0	86.0
Total Split (%)	28.3%	28.3%		28.3%	28.3%		71.7%	71.7%	71.7%	71.7%	71.7%	71.7%
Maximum Green (s)	27.8	27.8		27.8	27.8		80.0	80.0	80.0	80.0	80.0	80.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.2	1.2		1.2	1.2		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.2			6.2		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		7.2			7.2		104.1	104.1	104.1	104.1	104.1	104.1
Actuated g/C Ratio		0.06			0.06		0.87	0.87	0.87	0.87	0.87	0.87
v/c Ratio		0.49			0.31		0.22	0.52	0.01	0.04	0.46	0.02
Control Delay		31.5			40.8		2.0	1.4	0.1	2.5	3.0	0.7
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		31.5			40.8		2.0	1.4	0.1	2.5	3.0	0.7
LOS		C			D		A	A	A	A	A	A
Approach Delay		31.5			40.8			1.4			3.0	
Approach LOS		C			D			A			A	
Queue Length 50th (ft)		12			12		1	11	0	1	108	0
Queue Length 95th (ft)		58			43		m2	16	m1	4	180	5
Internal Link Dist (ft)		1714			1969			1731			2329	
Turn Bay Length (ft)							150		150	150		150
Base Capacity (vph)		395			349		284	3069	1376	226	3069	1376
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.18			0.09		0.22	0.52	0.01	0.04	0.46	0.02

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 2 (2%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 3.1		Intersection LOS: A	
Intersection Capacity Utilization 69.1%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 33: Bluebonnet & Oliphant



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Lane Configurations												
Volume (vph)	145	337	207	265	152	100						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.95						
Frt				0.850	0.940							
Flt Protected	0.950				0.971							
Satd. Flow (prot)	1770	1863	1863	1583	3298	0						
Flt Permitted	0.402				0.971							
Satd. Flow (perm)	749	1863	1863	1583	3298	0						
Right Turn on Red				Yes		Yes						
Satd. Flow (RTOR)				288	109							
Link Speed (mph)		30	30		30							
Link Distance (ft)		819	802		318							
Travel Time (s)		18.6	18.2		7.2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	158	366	225	288	165	109						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	366	225	288	274	0						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Right	Left	Right						
Median Width(ft)		12	0		36							
Link Offset(ft)		0	0		0							
Crosswalk Width(ft)		16	16		16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15			9	15	9						
Number of Detectors	1	2	2	1	1							
Detector Template	Left	Thru	Thru	Right	Left							
Leading Detector (ft)	20	100	100	20	20							
Trailing Detector (ft)	0	0	0	0	0							
Detector 1 Position(ft)	0	0	0	0	0							
Detector 1 Size(ft)	20	6	6	20	20							
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex							
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0							
Detector 2 Position(ft)		94	94									
Detector 2 Size(ft)		6	6									
Detector 2 Type		Cl+Ex	Cl+Ex									
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0									
Turn Type	D.P+P	NA	NA	pm+ov	Prot							
Protected Phases	8	8 11	11	9 10	9 10		1	2	4	5	7	9
Permitted Phases	11			11								
Detector Phase	8	8 11	11	9 10	9 10							
Switch Phase												
Minimum Initial (s)	4.0		14.0				4.0	4.0	14.0	4.0	14.0	4.0
Minimum Split (s)	22.0		20.0				10.0	10.0	20.0	10.0	20.0	10.0

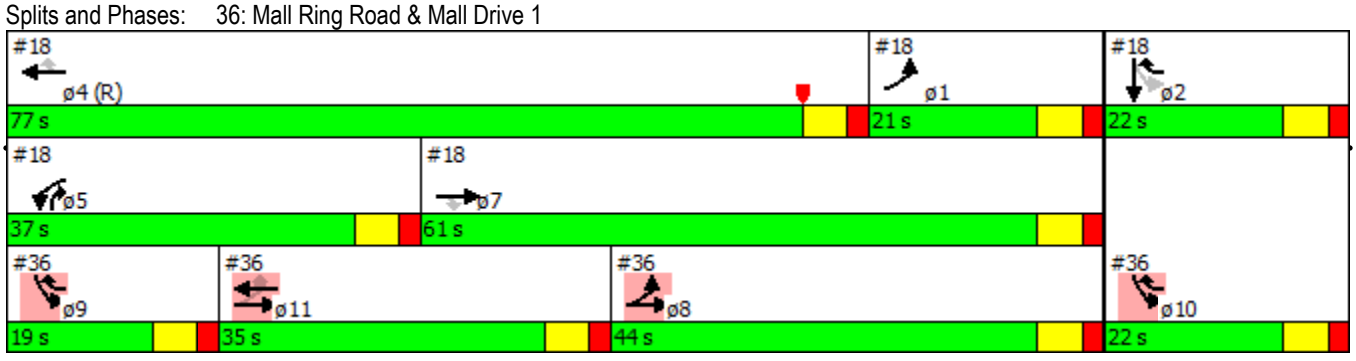
Lane Group	ø10
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	10
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	22.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Total Split (s)	44.0		35.0				21.0	22.0	77.0	37.0	61.0	19.0
Total Split (%)	36.7%		29.2%				18%	18%	64%	31%	51%	16%
Maximum Green (s)	38.0		29.0				15.0	16.0	71.0	31.0	55.0	13.0
Yellow Time (s)	4.0		4.0				4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0				2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0									
Total Lost Time (s)	6.0		6.0									
Lead/Lag			Lag				Lag		Lead	Lead	Lag	Lead
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0		4.3				2.5	2.0	4.3	2.5	4.3	3.0
Minimum Gap (s)	3.0		2.2				0.2	0.2	2.2	0.2	2.2	3.0
Time Before Reduce (s)	0.0		34.0				0.0	0.0	34.0	0.0	0.0	0.0
Time To Reduce (s)	0.0		15.0				0.0	0.0	15.0	0.0	0.0	0.0
Recall Mode	None		None				None	None	C-Min	None	None	None
Act Effct Green (s)	79.4	85.4	22.6	51.2	22.6							
Actuated g/C Ratio	0.66	0.71	0.19	0.43	0.19							
v/c Ratio	0.16	0.28	0.64	0.34	0.39							
Control Delay	2.9	2.8	52.5	2.8	70.6							
Queue Delay	0.0	0.0	0.0	0.0	0.0							
Total Delay	2.9	2.8	52.5	2.8	70.6							
LOS	A	A	D	A	E							
Approach Delay		2.9	24.6		70.6							
Approach LOS		A	C		E							
Queue Length 50th (ft)	10	23	162	0	95							
Queue Length 95th (ft)	27	59	225	39	133							
Internal Link Dist (ft)		739	722		238							
Turn Bay Length (ft)												
Base Capacity (vph)	979	1317	457	824	856							
Starvation Cap Reductn	0	0	0	0	0							
Spillback Cap Reductn	0	0	0	0	0							
Storage Cap Reductn	0	0	0	0	0							
Reduced v/c Ratio	0.16	0.28	0.49	0.35	0.32							

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 103 (86%), Referenced to phase 4:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 25.5 Intersection LOS: C
Intersection Capacity Utilization 42.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 36: Mall Ring Road & Mall Drive 1



Lane Group	ø10
Total Split (s)	22.0
Total Split (%)	18%
Maximum Green (s)	16.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Minimum Gap (s)	3.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

M.12 2017 NO BUILD PM – ESSEN LANE

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	224	487	100	423	1005	661	512	1211	153	169	823	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	800		0	300		0	150		0
Storage Lanes	1		0	1		1	2		0	1		0
Taper Length (ft)	150			25			200			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Frt		0.974				0.850		0.983			0.966	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3447	0	1770	3539	1583	3433	3479	0	1770	3419	0
Flt Permitted	0.222			0.222			0.950			0.950		
Satd. Flow (perm)	414	3447	0	414	3539	1583	3433	3479	0	1770	3419	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16				326		11			28	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1877			1475			2128			1788	
Travel Time (s)		28.4			22.3			32.2			27.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	243	529	109	460	1092	718	557	1316	166	184	895	261
Shared Lane Traffic (%)												
Lane Group Flow (vph)	243	638	0	460	1092	718	557	1482	0	184	1156	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	0	1	1		1	1	
Detector Template												
Leading Detector (ft)	45	162		45	162	0	45	45		45	45	
Trailing Detector (ft)	0	156		0	156	0	0	0		0	0	
Detector 1 Position(ft)	0	-6		0	-6	0	0	0		0	0	
Detector 1 Size(ft)	45	51		45	51	50	45	45		45	45	
Detector 1 Type	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2		2						
Detector Phase	1	6		5	2	2	3	8		7	4	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	5.0	10.0		3.0	10.0	
Minimum Split (s)	8.8	15.8		8.8	15.8	15.8	11.5	16.5		9.5	16.5	
Total Split (s)	18.0	36.0		30.0	48.0	48.0	25.0	55.0		19.0	49.0	
Total Split (%)	12.9%	25.7%		21.4%	34.3%	34.3%	17.9%	39.3%		13.6%	35.0%	
Maximum Green (s)	12.2	30.2		24.2	42.2	42.2	18.5	48.5		12.5	42.5	
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8	5.5	5.5		5.5	5.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8		5.8	5.8	5.8	6.5	6.5		6.5	6.5	
Lead/Lag	Lag	Lag		Lead	Lead	Lead	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	6.0		2.0	6.0	6.0	2.0	6.0		2.0	6.0	
Minimum Gap (s)	0.2	4.0		0.2	4.0	4.0	0.2	4.0		0.2	4.0	
Time Before Reduce (s)	0.0	20.0		0.0	20.0	20.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	
Act Effct Green (s)	30.2	30.2		42.2	42.2	42.2	18.5	48.5		12.5	42.5	
Actuated g/C Ratio	0.22	0.22		0.30	0.30	0.30	0.13	0.35		0.09	0.30	
v/c Ratio	1.17	0.84		1.28	1.02	1.02	1.23	1.22		1.16	1.09	
Control Delay	168.1	62.7		182.9	81.6	65.3	170.6	147.1		176.4	101.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	168.1	62.7		182.9	81.6	65.3	170.6	147.1		176.4	101.1	
LOS	F	E		F	F	E	F	F		F	F	
Approach Delay		91.7			97.0			153.5			111.5	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~241	289		~481	~555	~470	~321	~871		~198	~615	
Queue Length 95th (ft)	#439	#369		#701	#693	#719	#440	#1013		#355	#756	
Internal Link Dist (ft)		1797			1395			2048			1708	
Turn Bay Length (ft)	250			800			300			150		
Base Capacity (vph)	207	756		359	1066	704	453	1212		158	1057	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	1.17	0.84		1.28	1.02	1.02	1.23	1.22		1.16	1.09	

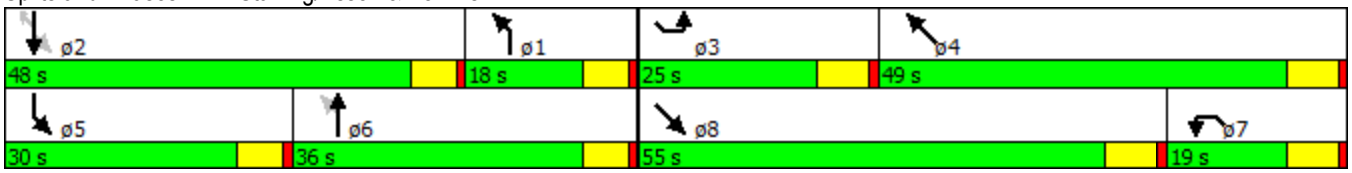
Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.28			
Intersection Signal Delay: 116.9		Intersection LOS: F	
Intersection Capacity Utilization 108.4%		ICU Level of Service G	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

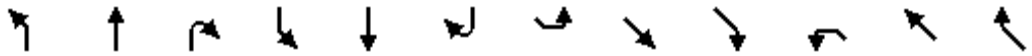
Queue shown is maximum after two cycles.

Splits and Phases: 2: Starring/Essen & Perkins



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	0	2547	575	496	1535	0	17	0	701	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		0	0		800	0		0
Storage Lanes	1		0	2		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.86	0.86	0.97	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt		0.972							0.850			
Flt Protected				0.950			0.950	0.950				
Satd. Flow (prot)	0	6228	0	3433	3539	0	1681	1681	1583	0	0	0
Flt Permitted				0.950			0.950	0.950				
Satd. Flow (perm)	0	6228	0	3433	3539	0	1681	1681	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		83							245			
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		721			409			1012			1106	
Travel Time (s)		10.9			6.2			23.0			25.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	2768	625	539	1668	0	18	0	762	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	0	3393	0	539	1668	0	9	9	762	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2		1	1	0			
Detector Template							Left					
Leading Detector (ft)		290		45	290		20	45	0			
Trailing Detector (ft)		284		0	284		0	0	0			
Detector 1 Position(ft)		-6		0	-6		0	0	0			
Detector 1 Size(ft)		51		45	51		20	45	20			
Detector 1 Type		Call		Cl+Ex	Call		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Queue (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Delay (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA		Prot	NA		Perm	NA	Free			
Protected Phases		6		5	5 6			8				
Permitted Phases							8		Free			
Detector Phase		6		5	5 6		8	8				

Lane Group	ø1	ø2	ø4
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	1	2	4
Permitted Phases			
Detector Phase			



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)		10.0		3.0			3.0	3.0				
Minimum Split (s)		16.0		9.0			9.0	9.0				
Total Split (s)		77.0		27.0			16.0	16.0				
Total Split (%)		64.2%		22.5%			13.3%	13.3%				
Maximum Green (s)		71.0		21.0			10.0	10.0				
Yellow Time (s)		5.0		5.0			5.0	5.0				
All-Red Time (s)		1.0		1.0			1.0	1.0				
Lost Time Adjust (s)		0.0		0.0			0.0	0.0				
Total Lost Time (s)		6.0		6.0			6.0	6.0				
Lead/Lag		Lag					Lead	Lead				
Lead-Lag Optimize?		Yes					Yes	Yes				
Vehicle Extension (s)		4.0		2.5			2.0	2.0				
Minimum Gap (s)		2.0		0.2			0.2	0.2				
Time Before Reduce (s)		10.0		0.0			0.0	0.0				
Time To Reduce (s)		20.0		0.0			0.0	0.0				
Recall Mode		Max		C-Max			Max	Max				
Act Effct Green (s)		71.0		21.0	98.0		10.0	10.0	120.0			
Actuated g/C Ratio		0.59		0.18	0.82		0.08	0.08	1.00			
v/c Ratio		0.91		0.90	0.58		0.06	0.06	0.48			
Control Delay		15.6		36.7	11.6		52.0	52.0	1.0			
Queue Delay		9.7		0.0	1.2		0.0	0.0	0.0			
Total Delay		25.3		36.7	12.8		52.0	52.0	1.0			
LOS		C		D	B		D	D	A			
Approach Delay		25.3			18.6			2.2				
Approach LOS		C			B			A				
Queue Length 50th (ft)		531		184	203		7	7	0			
Queue Length 95th (ft)		647		m#284	275		25	25	0			
Internal Link Dist (ft)		641			329			932			1026	
Turn Bay Length (ft)									800			
Base Capacity (vph)		3718		600	2890		140	140	1583			
Starvation Cap Reductn		359		0	907		0	0	0			
Spillback Cap Reductn		115		0	0		0	0	0			
Storage Cap Reductn		0		0	0		0	0	0			
Reduced v/c Ratio		1.01		0.90	0.84		0.06	0.06	0.48			

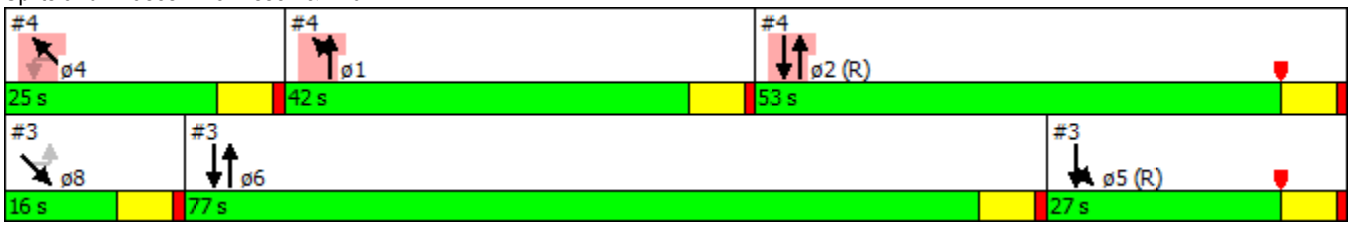
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 39 (33%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 20.2		Intersection LOS: C	
Intersection Capacity Utilization 79.0%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Lane Group	ø1	ø2	ø4
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	42.0	53.0	25.0
Total Split (%)	35%	44%	21%
Maximum Green (s)	36.0	47.0	19.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag		Lead
Lead-Lag Optimize?			
Vehicle Extension (s)	2.5	4.0	4.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	Max	C-Max	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Essen & I-10 EB



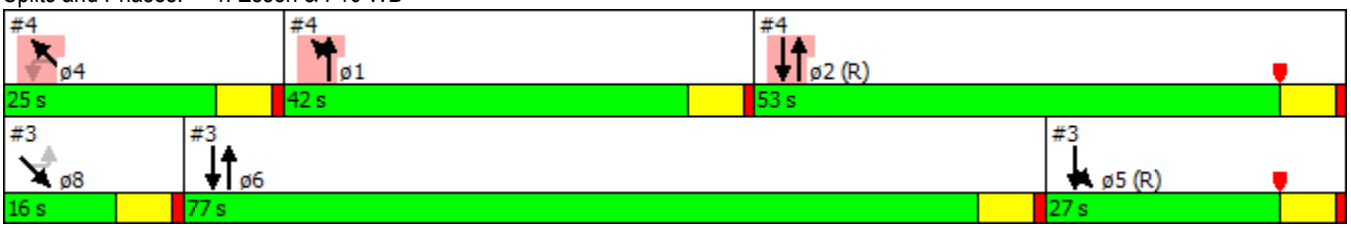
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	832	1749	0	0	1821	74	0	0	0	210	0	382
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	550		200	0		0	750		0
Storage Lanes	2		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.86	0.86	1.00	1.00	1.00	0.95	0.95	1.00
Frt					0.994							0.850
Flt Protected	0.950									0.950	0.950	
Satd. Flow (prot)	3433	3539	0	0	6369	0	0	0	0	1681	1681	1583
Flt Permitted	0.950									0.950	0.950	
Satd. Flow (perm)	3433	3539	0	0	6369	0	0	0	0	1681	1681	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					8							245
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		409			805			936			1390	
Travel Time (s)		6.2			12.2			21.3			31.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	904	1901	0	0	1979	80	0	0	0	228	0	415
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	904	1901	0	0	2059	0	0	0	0	114	114	415
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			20			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2					1	1	0
Detector Template										Left		
Leading Detector (ft)	45	290			290					20	45	0
Trailing Detector (ft)	0	284			284					0	0	0
Detector 1 Position(ft)	0	-6			-6					0	0	0
Detector 1 Size(ft)	45	51			51					20	45	20
Detector 1 Type	Cl+Ex	Call			Call					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA			NA					Perm	NA	Free
Protected Phases	1	1 2			2						4	
Permitted Phases										4		Free
Detector Phase	1	1 2			2					4	4	

Lane Group	ø5	ø6	ø8
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	5	6	8
Permitted Phases			
Detector Phase			

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0				10.0					3.0	3.0	
Minimum Split (s)	9.0				16.0					9.0	9.0	
Total Split (s)	42.0				53.0					25.0	25.0	
Total Split (%)	35.0%				44.2%					20.8%	20.8%	
Maximum Green (s)	36.0				47.0					19.0	19.0	
Yellow Time (s)	5.0				5.0					5.0	5.0	
All-Red Time (s)	1.0				1.0					1.0	1.0	
Lost Time Adjust (s)	0.0				0.0					0.0	0.0	
Total Lost Time (s)	6.0				6.0					6.0	6.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5				4.0					4.0	4.0	
Minimum Gap (s)	0.2				2.0					0.2	0.2	
Time Before Reduce (s)	0.0				10.0					0.0	0.0	
Time To Reduce (s)	0.0				20.0					0.0	0.0	
Recall Mode	Max				C-Max					Max	Max	
Act Effct Green (s)	36.0	89.0			47.0					19.0	19.0	120.0
Actuated g/C Ratio	0.30	0.74			0.39					0.16	0.16	1.00
v/c Ratio	0.88	0.72			0.82					0.43	0.43	0.26
Control Delay	40.0	3.9			37.3					51.3	51.3	0.4
Queue Delay	12.8	3.6			0.0					0.0	0.0	0.0
Total Delay	52.8	7.4			37.3					51.3	51.3	0.4
LOS	D	A			D					D	D	A
Approach Delay		22.1			37.3						18.4	
Approach LOS		C			D						B	
Queue Length 50th (ft)	270	6			466					85	85	0
Queue Length 95th (ft)	m343	6			480					148	148	0
Internal Link Dist (ft)		329			725			856			1310	
Turn Bay Length (ft)										750		
Base Capacity (vph)	1029	2624			2499					266	266	1583
Starvation Cap Reductn	125	617			0					0	0	0
Spillback Cap Reductn	0	15			0					0	0	7
Storage Cap Reductn	0	0			0					0	0	0
Reduced v/c Ratio	1.00	0.95			0.82					0.43	0.43	0.26

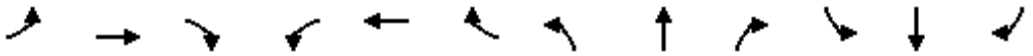
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 39 (33%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 27.3		Intersection LOS: C	
Intersection Capacity Utilization 79.0%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 4: Essen & I-10 WB

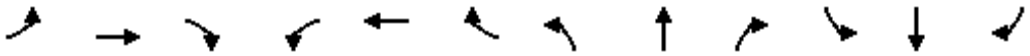


Lane Group	ø5	ø6	ø8
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	27.0	77.0	16.0
Total Split (%)	23%	64%	13%
Maximum Green (s)	21.0	71.0	10.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lead
Lead-Lag Optimize?		Yes	Yes
Vehicle Extension (s)	2.5	4.0	2.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	C-Max	Max	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	126	1	52	57	0	424	26	2541	24	187	2073	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	300		0	150		200	200		0
Storage Lanes	1		0	0		1	1		1	1		0
Taper Length (ft)	25			25			100			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Frt		0.853				0.850			0.850		0.996	
Flt Protected	0.950				0.950		0.950			0.950		
Satd. Flow (prot)	1770	1589	0	0	1770	1583	1770	5085	1583	1770	5065	0
Flt Permitted	0.717				0.719		0.950			0.950		
Satd. Flow (perm)	1336	1589	0	0	1339	1583	1770	5085	1583	1770	5065	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		57							82		7	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		451			896			893			216	
Travel Time (s)		10.3			20.4			13.5			3.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	137	1	57	62	0	461	28	2762	26	203	2253	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	137	58	0	0	62	461	28	2762	26	203	2316	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left		Right			Right			
Leading Detector (ft)	45	45		20	45	20	45	290	20	45	256	
Trailing Detector (ft)	0	0		0	0	0	0	284	0	0	250	
Detector 1 Position(ft)	0	0		0	0	0	0	-6	0	0	-6	
Detector 1 Size(ft)	45	45		20	45	20	45	51	20	45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			250	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA	pt+ov	Prot	NA	Perm	Prot	NA	
Protected Phases		8			4	4 5	1	6		5	2	
Permitted Phases	8			4					6			
Detector Phase	8	8		4	4	4 5	1	6	6	5	2	

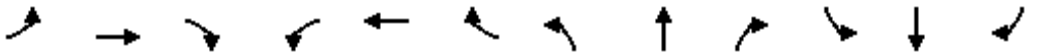


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	15.0	15.0	3.0	15.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	21.0	21.0	11.0	21.0	
Total Split (s)	21.0	21.0		21.0	21.0		12.0	78.0	78.0	21.0	87.0	
Total Split (%)	17.5%	17.5%		17.5%	17.5%		10.0%	65.0%	65.0%	17.5%	72.5%	
Maximum Green (s)	15.0	15.0		15.0	15.0		6.0	72.0	72.0	15.0	81.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0	6.0	6.0	6.0	
Lead/Lag							Lag	Lag	Lag	Lead	Lead	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.5	2.5	2.0	2.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0	2.0	0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0	10.0	0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0	20.0	0.0	20.0	
Recall Mode	None	None		None	None		None	Min	Min	None	C-Min	
Act Effct Green (s)	15.0	15.0			15.0	36.0	6.0	72.0	72.0	15.0	87.7	
Actuated g/C Ratio	0.12	0.12			0.12	0.30	0.05	0.60	0.60	0.12	0.73	
v/c Ratio	0.82	0.23			0.37	0.97	0.32	0.91	0.03	0.92	0.63	
Control Delay	86.6	14.9			55.3	77.2	64.8	26.9	0.5	103.2	2.6	
Queue Delay	0.0	0.0			0.0	0.0	0.0	1.9	0.0	0.0	0.0	
Total Delay	86.6	14.9			55.3	77.2	64.8	28.8	0.5	103.2	2.6	
LOS	F	B			E	E	E	C	A	F	A	
Approach Delay		65.3			74.6			28.9			10.7	
Approach LOS		E			E			C			B	
Queue Length 50th (ft)	105	1			45	353	22	798	0	144	48	
Queue Length 95th (ft)	#217	41			91	#567	m24	m845	m0	#298	56	
Internal Link Dist (ft)		371			816			813			136	
Turn Bay Length (ft)	200						150		200	200		
Base Capacity (vph)	167	248			167	474	95	3051	982	221	3724	
Starvation Cap Reductn	0	0			0	0	0	164	0	0	145	
Spillback Cap Reductn	0	0			0	0	0	86	0	0	0	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.82	0.23			0.37	0.97	0.29	0.96	0.03	0.92	0.65	

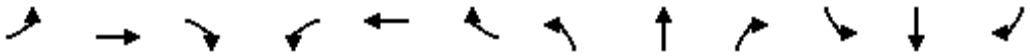
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 108 (90%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay: 26.4		Intersection LOS: C	
Intersection Capacity Utilization 97.3%		ICU Level of Service F	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Essen & Margaret Ann



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	5	6	73	5	238	1	2871	126	80	2144	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	100		0	350		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			150		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.964				0.850		0.994			0.999	
Flt Protected		0.974			0.955		0.950			0.950		
Satd. Flow (prot)	0	1749	0	0	1779	1583	1770	5055	0	1770	5080	0
Flt Permitted		0.805			0.720		0.950			0.950		
Satd. Flow (perm)	0	1446	0	0	1341	1583	1770	5055	0	1770	5080	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		7						12			2	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		496			1336			462			721	
Travel Time (s)		11.3			30.4			7.0			10.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	5	7	79	5	259	1	3121	137	87	2330	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	26	0	0	84	259	1	3258	0	87	2343	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45	45	45	141		45	290	
Trailing Detector (ft)	0	0		0	0	0	0	135		0	284	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	20	45		20	45	45	45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								135			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases		8			4	4 5	1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4	4 5	1	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		4.0	15.0		3.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	21.0		9.0	21.0	
Total Split (s)	18.0	18.0		18.0	18.0		11.0	87.0		15.0	91.0	
Total Split (%)	15.0%	15.0%		15.0%	15.0%		9.2%	72.5%		12.5%	75.8%	
Maximum Green (s)	12.0	12.0		12.0	12.0		5.0	81.0		9.0	85.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		3.0	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)		12.0			12.0	26.4	5.4	81.6		8.4	93.8	
Actuated g/C Ratio		0.10			0.10	0.22	0.04	0.68		0.07	0.78	
v/c Ratio		0.17			0.63	0.74	0.01	0.95		0.71	0.59	
Control Delay		42.5			72.9	57.7	58.0	11.5		82.7	6.2	
Queue Delay		0.0			0.0	0.0	0.0	4.9		0.0	0.0	
Total Delay		42.5			72.9	57.7	58.0	16.4		82.7	6.2	
LOS		D			E	E	E	B		F	A	
Approach Delay		42.5			61.5			16.4			8.9	
Approach LOS		D			E			B			A	
Queue Length 50th (ft)		14			64	187	1	231		62	418	
Queue Length 95th (ft)		43			#134	#300	m0	m352		m#134	416	
Internal Link Dist (ft)		416			1256			382			641	
Turn Bay Length (ft)						100	100			350		
Base Capacity (vph)		150			134	356	80	3441		132	3971	
Starvation Cap Reductn		0			0	0	0	38		0	83	
Spillback Cap Reductn		0			0	0	0	164		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.17			0.63	0.73	0.01	0.99		0.66	0.60	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 116 (97%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 16.0		Intersection LOS: B	
Intersection Capacity Utilization 91.3%		ICU Level of Service F	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Essen & Essen Park

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	561	315	1942	273	136	1334
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		0	150	
Storage Lanes	2	1		0	1	
Taper Length (ft)	25				100	
Lane Util. Factor	0.97	1.00	0.91	0.91	1.00	0.95
Frt		0.850	0.981			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	4989	0	1770	3539
Flt Permitted	0.950				0.055	
Satd. Flow (perm)	3433	1583	4989	0	102	3539
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			33			
Link Speed (mph)	30		45			45
Link Distance (ft)	1306		805			993
Travel Time (s)	29.7		12.2			15.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	610	342	2111	297	148	1450
Shared Lane Traffic (%)						
Lane Group Flow (vph)	610	342	2408	0	148	1450
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	52		20			25
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2		1	2
Detector Template						
Leading Detector (ft)	45	45	290		45	290
Trailing Detector (ft)	0	0	284		0	284
Detector 1 Position(ft)	0	0	-6		0	-6
Detector 1 Size(ft)	45	45	51		45	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			284			284
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm	pt+ov	NA		pm+pt	NA
Protected Phases		5 8	6		5	2
Permitted Phases	8				2	
Detector Phase	8	5 8	6		5	2

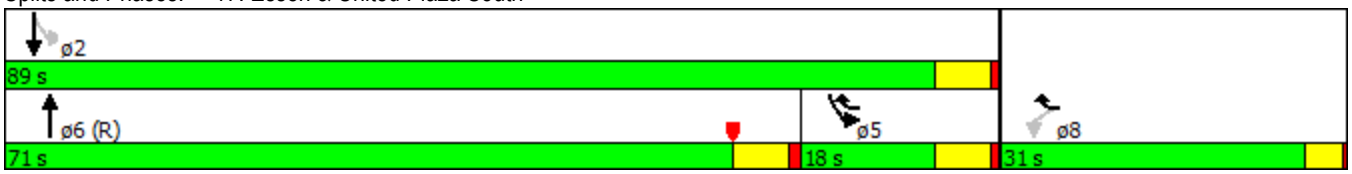
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	4.0		15.0		5.0	15.0
Minimum Split (s)	20.0		21.0		11.0	21.0
Total Split (s)	31.0		71.0		18.0	89.0
Total Split (%)	25.8%		59.2%		15.0%	74.2%
Maximum Green (s)	27.0		65.0		12.0	83.0
Yellow Time (s)	3.5		5.0		5.0	5.0
All-Red Time (s)	0.5		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.0		6.0		6.0	6.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		5.0		2.0	5.0
Minimum Gap (s)	3.0		3.0		0.2	3.0
Time Before Reduce (s)	0.0		15.0		0.0	15.0
Time To Reduce (s)	0.0		15.0		0.0	15.0
Recall Mode	None		C-Min		None	Min
Walk Time (s)	5.0					
Flash Dont Walk (s)	11.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	25.4	41.4	66.6		84.6	84.6
Actuated g/C Ratio	0.21	0.34	0.56		0.70	0.70
v/c Ratio	0.84	0.63	0.87		0.62	0.58
Control Delay	56.5	38.4	16.3		39.0	5.5
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	56.5	38.4	16.3		39.0	5.5
LOS	E	D	B		D	A
Approach Delay	50.0		16.3			8.6
Approach LOS	D		B			A
Queue Length 50th (ft)	230	215	142		65	202
Queue Length 95th (ft)	298	318	394		m122	161
Internal Link Dist (ft)	1226		725			913
Turn Bay Length (ft)		100			150	
Base Capacity (vph)	772	567	2781		238	2493
Starvation Cap Reductn	0	0	11		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.79	0.60	0.87		0.62	0.58

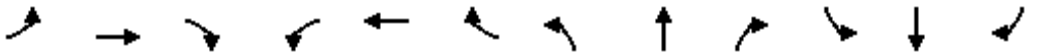
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 19 (16%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 20.3		Intersection LOS: C	
Intersection Capacity Utilization 80.5%		ICU Level of Service D	

Analysis Period (min) 15

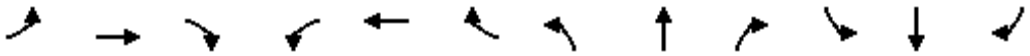
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 17: Essen & United Plaza South





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1008	79	171	169	36	351	33	1233	59	264	1620	299
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	425		50	280		280	150		0	550		300
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	100			200			25			100		
Lane Util. Factor	0.91	0.91	1.00	0.95	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Frt			0.850			0.850		0.993				0.850
Flt Protected	0.950	0.962		0.950	0.968		0.950			0.950		
Satd. Flow (prot)	3221	1631	1583	1681	1713	1583	1770	5050	0	1770	5085	1583
Flt Permitted	0.950	0.962		0.950	0.968		0.950			0.950		
Satd. Flow (perm)	3221	1631	1583	1681	1713	1583	1770	5050	0	1770	5085	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								6				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1908			1396			1335			893	
Travel Time (s)		43.4			31.7			20.2			13.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1096	86	186	184	39	382	36	1340	64	287	1761	325
Shared Lane Traffic (%)	28%			40%								
Lane Group Flow (vph)	789	393	186	110	113	382	36	1404	0	287	1761	325
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		45			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	0	1	1	1	1	2		1	2	2
Detector Template												
Leading Detector (ft)	45	45	0	45	45	45	45	290		45	256	45
Trailing Detector (ft)	0	0	0	0	0	0	0	284		0	284	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	-6		0	-6	-6
Detector 1 Size(ft)	45	45	20	45	45	45	45	51		45	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Call
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	0
Detector 2 Size(ft)								6			-28	45
Detector 2 Type								Extend			Extend	Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	0.0
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4	4 5	1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4	4 5	1	6		5	2	2 8

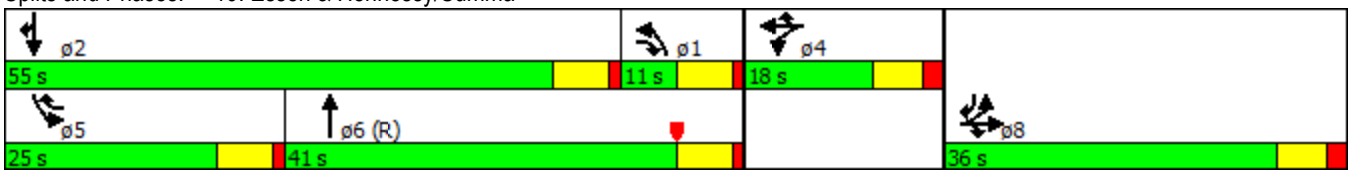


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.5	14.5		14.5	14.5		9.0	21.0		9.0	21.0	
Total Split (s)	36.0	36.0		18.0	18.0		11.0	41.0		25.0	55.0	
Total Split (%)	30.0%	30.0%		15.0%	15.0%		9.2%	34.2%		20.8%	45.8%	
Maximum Green (s)	29.5	29.5		11.5	11.5		5.0	35.0		19.0	49.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	29.5	29.5	36.2	11.5	11.5	30.0	7.2	35.0		19.0	46.8	82.8
Actuated g/C Ratio	0.25	0.25	0.30	0.10	0.10	0.25	0.06	0.29		0.16	0.39	0.69
v/c Ratio	1.00	0.98	0.39	0.68	0.69	0.97	0.34	0.95		1.02	0.89	0.30
Control Delay	76.8	86.4	28.3	74.3	74.4	66.8	45.5	44.7		120.4	34.0	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	40.2	0.0	2.2		0.0	0.0	0.0
Total Delay	76.8	86.4	28.3	74.3	74.4	107.0	45.5	46.9		120.4	34.0	9.4
LOS	E	F	C	E	E	F	D	D		F	C	A
Approach Delay		73.0			95.0			46.9			41.1	
Approach LOS		E			F			D			D	
Queue Length 50th (ft)	336	334	79	88	90	162	29	427		~228	279	110
Queue Length 95th (ft)	#480	#557	130	#175	#180	#356	m56	#491		#419	331	150
Internal Link Dist (ft)		1828			1316			1255			813	
Turn Bay Length (ft)	425		50	280		280	150			550		300
Base Capacity (vph)	791	400	477	161	164	395	106	1477		280	2076	1121
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	50	0	31		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	1.00	0.98	0.39	0.68	0.69	1.11	0.34	0.97		1.02	0.85	0.29

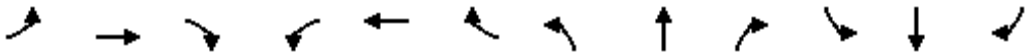
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 83 (69%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.02			
Intersection Signal Delay: 55.7		Intersection LOS: E	
Intersection Capacity Utilization 82.7%		ICU Level of Service E	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Essen & Hennessy/Summa



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	161	153	224	66	76	69	76	1096	69	99	1800	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	150		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.911			0.929			0.991			0.995	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1697	0	1770	1730	0	1770	5040	0	1770	5060	0
Flt Permitted	0.577			0.149			0.086			0.188		
Satd. Flow (perm)	1075	1697	0	278	1730	0	160	5040	0	350	5060	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		65			40			11			6	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1062			1416			1475			1335	
Travel Time (s)		24.1			32.2			22.3			20.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	175	166	243	72	83	75	83	1191	75	108	1957	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	175	409	0	72	158	0	83	1266	0	108	2025	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template												
Leading Detector (ft)	45	45		45	45		45	290		45	290	
Trailing Detector (ft)	0	0		0	0		0	284		0	284	
Detector 1 Position(ft)	0	0		0	0		0	-6		0	-6	
Detector 1 Size(ft)	45	45		45	45		45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		1	6		5	2	

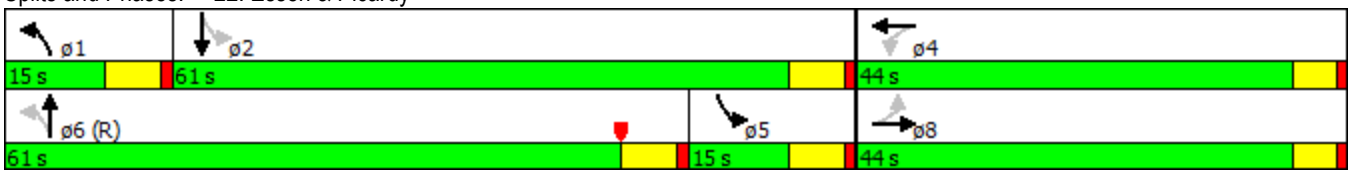


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		2.0	15.0		3.0	15.0	
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	21.0		9.0	21.0	
Total Split (s)	44.0	44.0		44.0	44.0		15.0	61.0		15.0	61.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		12.5%	50.8%		12.5%	50.8%	
Maximum Green (s)	39.0	39.0		39.0	39.0		9.0	55.0		9.0	55.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	30.0	30.0		30.0	30.0		54.5	54.5		67.5	67.5	
Actuated g/C Ratio	0.25	0.25		0.25	0.25		0.45	0.45		0.56	0.56	
v/c Ratio	0.65	0.86		1.04	0.34		0.47	0.55		0.26	0.71	
Control Delay	50.9	53.9		164.6	27.6		31.6	26.8		11.3	12.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	50.9	53.9		164.6	27.6		31.6	26.8		11.3	12.0	
LOS	D	D		F	C		C	C		B	B	
Approach Delay		53.0			70.5			27.1			12.0	
Approach LOS		D			E			C			B	
Queue Length 50th (ft)	121	260		~58	74		37	260		23	165	
Queue Length 95th (ft)	183	350		#142	122		81	362		m19	115	
Internal Link Dist (ft)		982			1336			1395			1255	
Turn Bay Length (ft)	225			150			150			150		
Base Capacity (vph)	349	595		90	589		193	2501		415	2850	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.50	0.69		0.80	0.27		0.43	0.51		0.26	0.71	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 79 (66%), Referenced to phase 6:NBTL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.04			
Intersection Signal Delay: 25.4		Intersection LOS: C	
Intersection Capacity Utilization 84.2%		ICU Level of Service E	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Essen & Picardy



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	448	157	2377	11	49	1119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	125		125	125	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.88	0.91	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2787	5085	1583	1770	3539
Flt Permitted	0.950				0.059	
Satd. Flow (perm)	1770	2787	5085	1583	110	3539
Right Turn on Red		Yes		No		
Satd. Flow (RTOR)		153				
Link Speed (mph)	30		45			45
Link Distance (ft)	1179		993			571
Travel Time (s)	26.8		15.0			8.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	487	171	2584	12	53	1216
Shared Lane Traffic (%)						
Lane Group Flow (vph)	487	171	2584	12	53	1216
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	42		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template						
Leading Detector (ft)	45	45	290	45	45	290
Trailing Detector (ft)	0	0	284	0	-6	284
Detector 1 Position(ft)	0	0	-6	0	-6	-6
Detector 1 Size(ft)	45	45	51	45	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			284			284
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	pt+ov	pm+pt	NA
Protected Phases	4		6	6 4	5	2
Permitted Phases		4			2	
Detector Phase	4	4	6	6 4	5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	5.0	5.0	15.0		3.0	15.0
Minimum Split (s)	11.0	11.0	21.0		9.0	21.0
Total Split (s)	45.0	45.0	64.0		11.0	75.0
Total Split (%)	37.5%	37.5%	53.3%		9.2%	62.5%
Maximum Green (s)	39.0	39.0	58.0		5.0	69.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0
Recall Mode	None	None	C-Min		None	C-Min
Act Effct Green (s)	35.8	35.8	63.2	106.2	72.2	72.2
Actuated g/C Ratio	0.30	0.30	0.53	0.88	0.60	0.60
v/c Ratio	0.92	0.18	0.97	0.01	0.39	0.57
Control Delay	64.9	6.5	24.7	0.4	22.9	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	64.9	6.5	24.7	0.4	22.9	9.7
LOS	E	A	C	A	C	A
Approach Delay	49.7		24.6			10.3
Approach LOS	D		C			B
Queue Length 50th (ft)	354	5	~790	1	10	185
Queue Length 95th (ft)	#531	32	#879	m1	m28	142
Internal Link Dist (ft)	1099		913			491
Turn Bay Length (ft)		125		125	125	
Base Capacity (vph)	575	1009	2677	1414	138	2129
Starvation Cap Reductn	0	0	0	0	0	171
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.17	0.97	0.01	0.38	0.62

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 31 (26%), Referenced to phase 2:SBTL and 6:NBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay: 24.2		Intersection LOS: C	
Intersection Capacity Utilization 80.7%		ICU Level of Service D	
Analysis Period (min) 15			

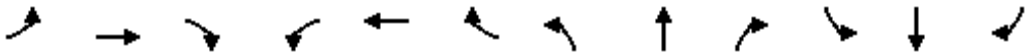
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 28: Essen & United Plaza North

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	0	19	105	1	367	15	2505	14	34	1044	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		100	175		0	150		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	0.95
Frt		0.850				0.850		0.999			0.995	
Flt Protected	0.950				0.953		0.950			0.950		
Satd. Flow (prot)	1770	1583	0	0	1775	1583	1770	5080	0	1770	3522	0
Flt Permitted	0.656				0.713		0.240			0.061		
Satd. Flow (perm)	1222	1583	0	0	1328	1583	447	5080	0	114	3522	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		191						1			6	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		757			843			571			472	
Travel Time (s)		17.2			19.2			8.7			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	0	21	114	1	399	16	2723	15	37	1135	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	65	21	0	0	115	399	16	2738	0	37	1177	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	3	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290		45	390	
Trailing Detector (ft)	0	0		0	0	0	0	284		0	284	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	45	45		20	45	45	45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Detector 3 Position(ft)											384	
Detector 3 Size(ft)											6	
Detector 3 Type											Cl+Ex	
Detector 3 Channel												



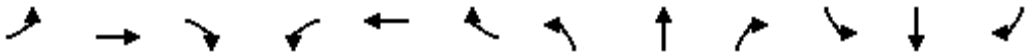
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 3 Extend (s)											0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		8		7	4	4 5	1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4	4 5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	31.0		11.0	31.0	
Total Split (s)	15.0	15.0		11.0	26.0		11.0	72.0		22.0	83.0	
Total Split (%)	12.5%	12.5%		9.2%	21.7%		9.2%	60.0%		18.3%	69.2%	
Maximum Green (s)	9.0	9.0		5.0	20.0		5.0	66.0		16.0	77.0	
Yellow Time (s)	4.5	4.5		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		2.0	2.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag		Lead			Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	3.0		0.2	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	20.2	20.2			20.2	38.7	69.3	69.3		83.3	83.3	
Actuated g/C Ratio	0.17	0.17			0.17	0.32	0.58	0.58		0.69	0.69	
v/c Ratio	0.32	0.05			0.52	0.78	0.05	0.93		0.15	0.48	
Control Delay	48.9	0.2			54.7	48.2	2.0	10.8		12.5	6.5	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.1	
Total Delay	48.9	0.2			54.7	48.2	2.0	10.8		12.5	6.6	
LOS	D	A			D	D	A	B		B	A	
Approach Delay		37.0			49.7			10.7			6.8	
Approach LOS		D			D			B			A	
Queue Length 50th (ft)	45	0			82	273	1	91		4	73	
Queue Length 95th (ft)	90	0			146	388	m1	m#139		m29	191	
Internal Link Dist (ft)		677			763			491			392	
Turn Bay Length (ft)	75					100	175			150		
Base Capacity (vph)	205	425			223	557	337	2935		300	2514	
Starvation Cap Reductn	0	0			0	0	0	0		0	205	
Spillback Cap Reductn	0	1			0	0	0	0		0	33	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.32	0.05			0.52	0.72	0.05	0.93		0.12	0.51	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 28 (23%), Referenced to phase 2:SBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	

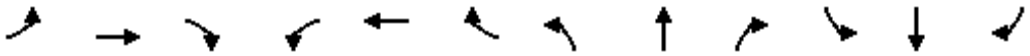
Intersection Signal Delay: 14.6	Intersection LOS: B
Intersection Capacity Utilization 90.6%	ICU Level of Service E
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 29: Essen & Sholar/Archives



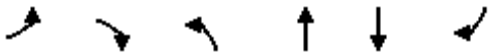
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	209	0	42	0	0	0	0	1701	1232	0	1075	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.949							0.850			
Flt Protected	0.950	0.968										
Satd. Flow (prot)	1681	1626	0	0	0	0	0	3539	1583	0	3539	0
Flt Permitted	0.950	0.968										
Satd. Flow (perm)	1681	1626	0	0	0	0	0	3539	1583	0	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36							454			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		995			508			472			1384	
Travel Time (s)		22.6			11.5			7.2			21.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	227	0	46	0	0	0	0	1849	1339	0	1168	0
Shared Lane Traffic (%)	39%											
Lane Group Flow (vph)	138	135	0	0	0	0	0	1849	1339	0	1168	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1						2	1		2	
Detector Template												
Leading Detector (ft)	45	45						290	45		290	
Trailing Detector (ft)	0	0						284	-6		284	
Detector 1 Position(ft)	0	0						-6	-6		-6	
Detector 1 Size(ft)	45	45						51	51		51	
Detector 1 Type	Cl+Ex	Cl+Ex						Call	Cl+Ex		Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0		0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA						NA	Free		NA	
Protected Phases		8						6			2	
Permitted Phases	8								Free			
Detector Phase	8	8						6			2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	10.0	10.0						25.0			25.0	
Minimum Split (s)	17.0	17.0						32.0			32.0	
Total Split (s)	27.0	27.0						93.0			93.0	
Total Split (%)	22.5%	22.5%						77.5%			77.5%	
Maximum Green (s)	20.0	20.0						86.0			86.0	
Yellow Time (s)	5.0	5.0						5.0			5.0	
All-Red Time (s)	2.0	2.0						2.0			2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	7.0	7.0						7.0			7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5						5.0			5.0	
Minimum Gap (s)	0.2	0.2						3.0			3.0	
Time Before Reduce (s)	0.0	0.0						15.0			15.0	
Time To Reduce (s)	0.0	0.0						15.0			15.0	
Recall Mode	None	None						C-Max			Max	
Act Effct Green (s)	14.8	14.8						91.2	120.0		91.2	
Actuated g/C Ratio	0.12	0.12						0.76	1.00		0.76	
v/c Ratio	0.67	0.58						0.69	0.85		0.43	
Control Delay	65.4	45.8						2.8	14.1		6.1	
Queue Delay	0.0	0.0						0.3	0.0		0.0	
Total Delay	65.4	45.8						3.1	14.1		6.1	
LOS	E	D						A	B		A	
Approach Delay		55.7						7.7			6.1	
Approach LOS		E						A			A	
Queue Length 50th (ft)	109	76						100	851		144	
Queue Length 95th (ft)	173	141						m99	m962		217	
Internal Link Dist (ft)		915			428			392			1304	
Turn Bay Length (ft)	400											
Base Capacity (vph)	280	301						2690	1583		2690	
Starvation Cap Reductn	0	0						288	0		0	
Spillback Cap Reductn	0	0						0	0		0	
Storage Cap Reductn	0	0						0	0		0	
Reduced v/c Ratio	0.49	0.45						0.77	0.85		0.43	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 46 (38%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 10.1		Intersection LOS: B	
Intersection Capacity Utilization 67.0%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

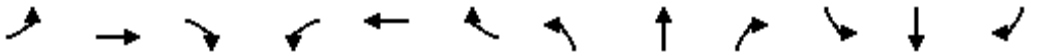
Splits and Phases: 32: Essen & I-12 EB



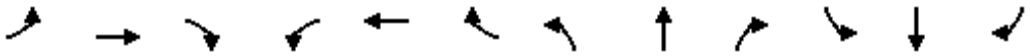
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	212	95	2997	2106	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	50			0
Storage Lanes	0	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91
Frt		0.865			0.992	
Flt Protected			0.950			
Satd. Flow (prot)	0	1611	1770	5085	5045	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	1611	1770	5085	5045	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	445			216	462	
Travel Time (s)	10.1			3.3	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	230	103	3258	2289	127
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	230	103	3258	2416	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 63.1%		ICU Level of Service B	
Analysis Period (min) 15			

M.13 2017 NO BUILD PM – BLUEBONNET BOULEVARD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	151	995	98	424	669	123	168	984	166	313	885	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		250	325		375	350		0	250		150
Storage Lanes	2		1	2		1	2		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Frt			0.850			0.850		0.978				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3461	0	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3461	0	3433	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								12				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		2445			3864			2201			709	
Travel Time (s)		37.0			58.5			33.3			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	159	1047	103	446	704	129	177	1036	175	329	932	184
Shared Lane Traffic (%)												
Lane Group Flow (vph)	159	1047	103	446	704	129	177	1211	0	329	932	184
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45	45	290		45	290	45
Trailing Detector (ft)	-6	284	-6	-6	284	-6	-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6	-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51	51	51		51	51	51
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		284			284			284			284	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Extend			Extend			Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8		7	4	4 5
Permitted Phases												
Detector Phase	5	2	2 3	1	6	6 7	3	8		7	4	4 5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	10.0		4.0	10.0	
Minimum Split (s)	11.0	34.5		11.0	37.5		11.0	41.0		11.0	41.0	
Total Split (s)	21.0	51.0		29.0	59.0		22.0	54.0		26.0	58.0	
Total Split (%)	13.1%	31.9%		18.1%	36.9%		13.8%	33.8%		16.3%	36.3%	
Maximum Green (s)	14.0	44.5		22.0	52.5		15.0	47.0		19.0	51.0	
Yellow Time (s)	5.0	4.5		5.0	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	6.5		7.0	6.5		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.3		3.0	4.3		3.0	3.9		3.0	3.9	
Minimum Gap (s)	0.2	2.2		0.2	2.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	15.0		0.0	15.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0		0.0	10.0		0.0	10.0	
Recall Mode	None	Min		None	Min		None	Min		None	C-Min	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		23.0			26.0			29.0			29.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	12.3	44.5	65.3	22.0	54.2	79.6	20.3	47.6		18.4	45.7	58.0
Actuated g/C Ratio	0.08	0.28	0.41	0.14	0.34	0.50	0.13	0.30		0.12	0.29	0.36
v/c Ratio	0.60	1.06	0.16	0.94	0.59	0.16	0.41	1.17		0.84	0.92	0.32
Control Delay	81.2	101.2	17.5	97.3	46.4	22.9	68.9	133.4		87.8	58.4	14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	81.2	101.2	17.5	97.3	46.4	22.9	68.9	133.4		87.8	58.4	14.8
LOS	F	F	B	F	D	C	E	F		F	E	B
Approach Delay		92.2			61.8			125.2			59.5	
Approach LOS		F			E			F			E	
Queue Length 50th (ft)	84	~633	41	242	322	73	89	~794		161	502	80
Queue Length 95th (ft)	124	#772	74	#351	396	117	136	#937		#247	442	119
Internal Link Dist (ft)		2365			3784			2121			629	
Turn Bay Length (ft)	440		250	325		375	350			250		150
Base Capacity (vph)	300	984	646	472	1198	793	435	1038		407	1128	643
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.53	1.06	0.16	0.94	0.59	0.16	0.41	1.17		0.81	0.83	0.29

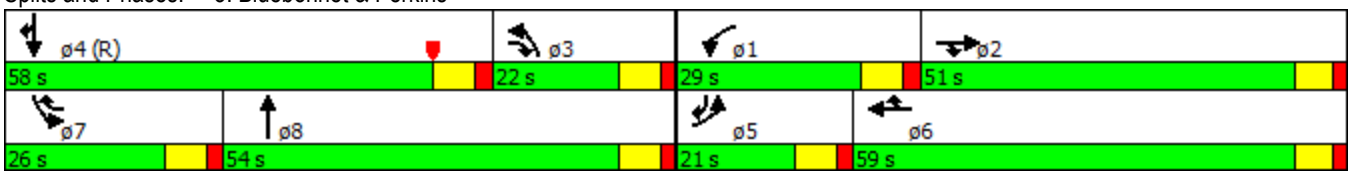
Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 160			
Offset: 145 (91%), Referenced to phase 4:SBT, Start of Yellow			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.17			
Intersection Signal Delay: 84.8		Intersection LOS: F	
Intersection Capacity Utilization 103.9%		ICU Level of Service G	

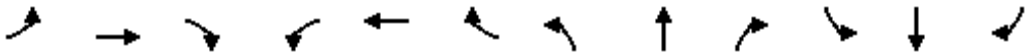
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

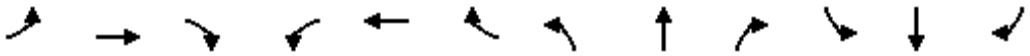
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Bluebonnet & Perkins





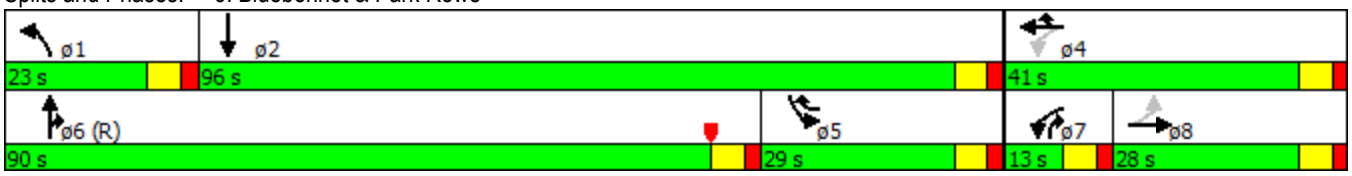
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	91	13	52	71	14	177	90	1015	152	297	1249	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		125	160		160	175		0
Storage Lanes	1		0	0		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.880				0.850			0.850		0.992	
Flt Protected	0.950				0.960		0.950			0.950		
Satd. Flow (prot)	1770	1639	0	0	1788	1583	1770	3539	1583	3433	3511	0
Flt Permitted	0.699				0.522		0.950			0.950		
Satd. Flow (perm)	1302	1639	0	0	972	1583	1770	3539	1583	3433	3511	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		55									6	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		511			1048			709			2556	
Travel Time (s)		11.6			23.8			10.7			38.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	96	14	55	75	15	186	95	1068	160	313	1315	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	96	69	0	0	90	186	95	1068	160	313	1391	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290	45	45	290	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284	-6	-6	284	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6	-6	-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	
Protected Phases		8		7	4	4 5	1	6	6 7	5	2	
Permitted Phases	8			4								
Detector Phase	8	8		7	4	4 5	1	6	6 7	5	2	

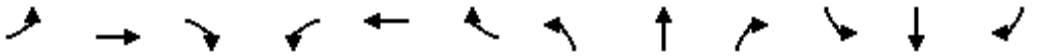


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		3.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	11.0	11.0		9.0	11.0		9.0	21.0		9.0	21.0	
Total Split (s)	28.0	28.0		13.0	41.0		23.0	90.0		29.0	96.0	
Total Split (%)	17.5%	17.5%		8.1%	25.6%		14.4%	56.3%		18.1%	60.0%	
Maximum Green (s)	22.0	22.0		7.0	35.0		17.0	84.0		23.0	90.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		1.5	2.0		1.5	4.0		1.5	4.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	16.3	16.3			30.4	58.2	12.6	89.8	97.8	21.9	99.1	
Actuated g/C Ratio	0.10	0.10			0.19	0.36	0.08	0.56	0.61	0.14	0.62	
v/c Ratio	0.73	0.32			0.40	0.32	0.69	0.54	0.17	0.67	0.64	
Control Delay	97.8	24.4			58.6	36.4	67.7	51.8	20.4	72.4	22.6	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.7	0.0	0.0	0.0	
Total Delay	97.8	24.4			58.6	36.4	67.7	52.5	20.4	72.4	22.6	
LOS	F	C			E	D	E	D	C	E	C	
Approach Delay		67.1			43.6			49.7			31.7	
Approach LOS		E			D			D			C	
Queue Length 50th (ft)	99	14			82	141	100	599	110	163	458	
Queue Length 95th (ft)	160	62			127	172	m107	m381	m97	206	683	
Internal Link Dist (ft)		431			968			629			2476	
Turn Bay Length (ft)	100					125	160		160	175		
Base Capacity (vph)	181	275			260	618	190	2035	993	520	2204	
Starvation Cap Reductn	0	0			0	0	0	585	0	0	0	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.53	0.25			0.35	0.30	0.50	0.74	0.16	0.60	0.63	

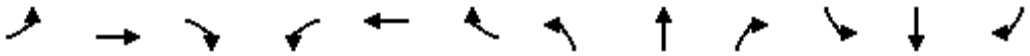
Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 160			
Offset: 18 (11%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 41.2		Intersection LOS: D	
Intersection Capacity Utilization 68.5%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Bluebonnet & Park Rowe





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	544	5	90	27	2	50	17	1256	11	18	1501	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	475		475	50		0	425		0	130		130
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.855			0.999				0.850
Flt Protected	0.950	0.953		0.950			0.950			0.950		
Satd. Flow (prot)	1681	1686	1583	1770	1593	0	1770	3536	0	1770	3539	1583
Flt Permitted	0.950	0.953		0.950			0.950			0.950		
Satd. Flow (perm)	1681	1686	1583	1770	1593	0	1770	3536	0	1770	3539	1583
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)					53			1				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1004			740			2556			469	
Travel Time (s)		22.8			16.8			38.7			7.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	573	5	95	28	2	53	18	1322	12	19	1580	131
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	286	292	95	28	55	0	18	1334	0	19	1580	131
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	45	45	45		45	290		45	290	45
Trailing Detector (ft)	-6	-6	-6	-6	-6		-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6		-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51		51	51		51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA		Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4		1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4		1	6		5	2	2 8

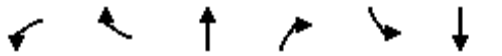


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.5	25.5		8.5	25.5	
Total Split (s)	39.0	39.0		13.0	13.0		11.0	86.0		12.0	87.0	
Total Split (%)	26.0%	26.0%		8.7%	8.7%		7.3%	57.3%		8.0%	58.0%	
Maximum Green (s)	34.0	34.0		8.0	8.0		5.5	80.5		6.5	81.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	6.0		3.0	6.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	31.8	31.8	43.0	7.9	7.9		5.7	91.8		7.1	86.1	118.5
Actuated g/C Ratio	0.21	0.21	0.29	0.05	0.05		0.04	0.61		0.05	0.57	0.79
v/c Ratio	0.80	0.82	0.21	0.30	0.41		0.27	0.62		0.23	0.78	0.10
Control Delay	73.4	74.8	41.3	77.0	27.0		80.6	22.0		62.8	21.9	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.1		0.0	0.1		0.0	0.3	0.0
Total Delay	73.4	74.8	41.3	77.0	27.1		80.6	22.0		62.8	22.2	1.9
LOS	E	E	D	E	C		F	C		E	C	A
Approach Delay		69.5			43.9			22.8			21.1	
Approach LOS		E			D			C			C	
Queue Length 50th (ft)	276	284	70	27	2		18	403		20	850	18
Queue Length 95th (ft)	394	#410	120	63	50		46	580		m49	318	28
Internal Link Dist (ft)		924			660			2476			389	
Turn Bay Length (ft)	475		475	50			425			130		130
Base Capacity (vph)	381	382	447	94	135		67	2181		86	2031	1273
Starvation Cap Reductn	0	0	0	0	0		0	0		0	86	0
Spillback Cap Reductn	0	0	0	0	1		0	75		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.75	0.76	0.21	0.30	0.41		0.27	0.63		0.22	0.81	0.10

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 91 (61%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 30.7 Intersection LOS: C
Intersection Capacity Utilization 72.1% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Bluebonnet & Anselmo



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Lane Configurations									
Volume (vph)	295	91	1492	357	115	1349			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	0	100		150	350				
Storage Lanes	2	1		1	1				
Taper Length (ft)	25				25				
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.91			
Frt		0.850		0.850					
Flt Protected	0.950				0.950				
Satd. Flow (prot)	3433	1583	3539	1583	1770	5085			
Flt Permitted	0.950				0.950				
Satd. Flow (perm)	3433	1583	3539	1583	1770	5085			
Right Turn on Red		No		No					
Satd. Flow (RTOR)									
Link Speed (mph)	30		45			45			
Link Distance (ft)	352		390			974			
Travel Time (s)	8.0		5.9			14.8			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95			
Adj. Flow (vph)	311	96	1571	376	121	1420			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	311	96	1571	376	121	1420			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Right	Left	Left			
Median Width(ft)	35		20			20			
Link Offset(ft)	0		0			0			
Crosswalk Width(ft)	16		16			16			
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Turning Speed (mph)	15	9		9	15				
Number of Detectors	1	1	2	1	1	2			
Detector Template									
Leading Detector (ft)	45	45	290	45	45	290			
Trailing Detector (ft)	-6	-6	284	-6	-6	284			
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			
Detector 1 Size(ft)	51	51	51	51	51	51			
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call			
Detector 1 Channel									
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)			284			284			
Detector 2 Size(ft)			6			6			
Detector 2 Type			Extend			Extend			
Detector 2 Channel									
Detector 2 Extend (s)			0.0			0.0			
Turn Type	Prot	pt+ov	NA	pt+ov	Prot	NA			
Protected Phases	4	4 3	1	1 4	3	2	5	7	8
Permitted Phases									
Detector Phase	4	4 3	1	1 4	3	2			

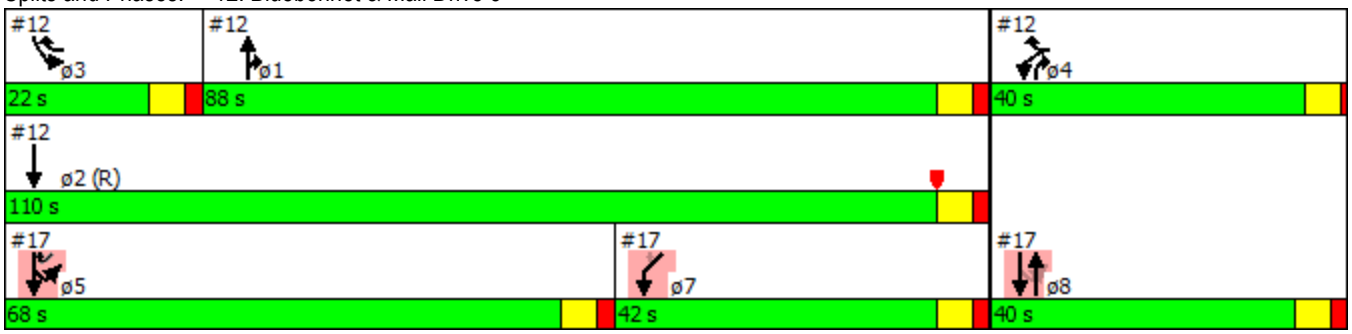
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Switch Phase									
Minimum Initial (s)	4.0		24.0		4.0	34.0	4.0	4.0	34.0
Minimum Split (s)	10.0		30.0		10.0	40.0	10.0	22.0	40.0
Total Split (s)	40.0		88.0		22.0	110.0	68.0	42.0	40.0
Total Split (%)	26.7%		58.7%		14.7%	73.3%	45%	28%	27%
Maximum Green (s)	35.0		82.0		16.0	104.0	62.0	36.0	34.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0			
Total Lost Time (s)	5.0		6.0		6.0	6.0			
Lead/Lag			Lag		Lead		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	
Vehicle Extension (s)	2.5		4.3		2.0	4.3	2.5	3.0	4.3
Minimum Gap (s)	0.2		2.2		0.2	2.2	0.2	3.0	2.2
Time Before Reduce (s)	0.0		20.0		0.0	30.0	0.0	0.0	30.0
Time To Reduce (s)	0.0		15.0		0.0	15.0	0.0	0.0	15.0
Recall Mode	None		Min		None	C-Min	Max	None	Min
Walk Time (s)								5.0	
Flash Dont Walk (s)								11.0	
Pedestrian Calls (#/hr)								0	
Act Effct Green (s)	35.0	54.9	84.1	124.1	13.9	104.0			
Actuated g/C Ratio	0.23	0.37	0.56	0.83	0.09	0.69			
v/c Ratio	0.39	0.17	0.79	0.29	0.74	0.40			
Control Delay	30.2	22.8	21.0	4.0	103.4	1.8			
Queue Delay	0.0	0.0	0.3	0.0	0.0	0.0			
Total Delay	30.2	22.8	21.4	4.0	103.4	1.8			
LOS	C	C	C	A	F	A			
Approach Delay	28.5		18.0			9.8			
Approach LOS	C		B			A			
Queue Length 50th (ft)	95	51	504	86	117	31			
Queue Length 95th (ft)	119	81	740	133	m188	57			
Internal Link Dist (ft)	272		310			894			
Turn Bay Length (ft)		100		150	350				
Base Capacity (vph)	801	603	1989	1299	191	3525			
Starvation Cap Reductn	0	0	91	0	0	0			
Spillback Cap Reductn	0	0	0	0	0	352			
Storage Cap Reductn	0	0	0	0	0	0			
Reduced v/c Ratio	0.39	0.16	0.83	0.29	0.63	0.45			

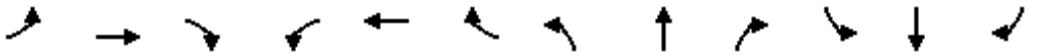
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 98 (65%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 15.9		Intersection LOS: B	
Intersection Capacity Utilization 70.2%		ICU Level of Service C	

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

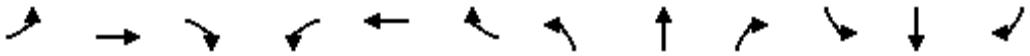
Splits and Phases: 12: Bluebonnet & Mall Drive 3





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	701	292	238	68	68	56	93	1456	34	161	1157	195
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	140		140	200		200	200		160
Storage Lanes	2		0	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		0.933				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3302	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3302	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		140										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1050			403			974			1065	
Travel Time (s)		23.9			9.2			14.8			16.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	738	307	251	72	72	59	98	1533	36	169	1218	205
Shared Lane Traffic (%)												
Lane Group Flow (vph)	738	558	0	72	72	59	98	1533	36	169	1218	205
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			36			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pt+ov
Protected Phases	3	2		9	8	8 6	1	10	10 9	6	5	5 3
Permitted Phases												
Detector Phase	3	2		9	8	8 6	1	10	10 9	6	5	5 3

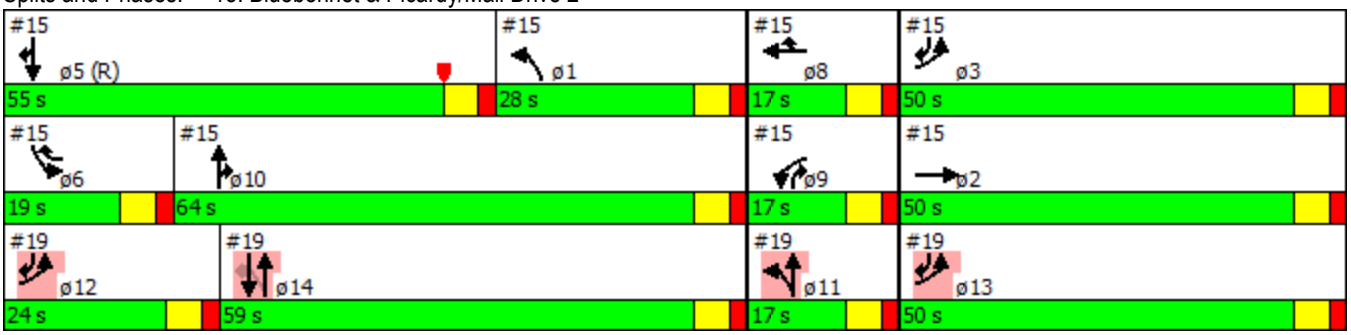
Lane Group	ø11	ø12	ø13	ø14
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	11	12	13	14
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	21.0		3.0	21.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		11.0	27.0		11.0	27.0	
Total Split (s)	50.0	50.0		17.0	17.0		28.0	64.0		19.0	55.0	
Total Split (%)	33.3%	33.3%		11.3%	11.3%		18.7%	42.7%		12.7%	36.7%	
Maximum Green (s)	44.0	44.0		11.0	11.0		22.0	58.0		13.0	49.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.0		1.0	1.0		3.0	4.3		1.0	4.3	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	28.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	15.0	
Recall Mode	None	None		None	None		None	None		None	C-Min	
Act Effct Green (s)	36.9	36.9		7.5	7.5	34.1	27.7	54.9	68.5	26.6	53.8	96.8
Actuated g/C Ratio	0.25	0.25		0.05	0.05	0.23	0.18	0.37	0.46	0.18	0.36	0.65
v/c Ratio	0.87	0.61		0.42	0.41	0.16	0.30	0.82	0.05	0.28	0.67	0.20
Control Delay	66.0	39.3		63.6	63.0	41.9	32.2	23.4	5.4	58.8	17.7	5.2
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.0	39.3		63.6	63.0	41.9	32.2	23.4	5.4	58.8	17.7	5.2
LOS	E	D		E	E	D	C	C	A	E	B	A
Approach Delay		54.5			57.1			23.5			20.5	
Approach LOS		D			E			C			C	
Queue Length 50th (ft)	358	192		38	38	43	76	479	10	61	304	38
Queue Length 95th (ft)	410	240		67	68	100	m97	348	m5	103	126	17
Internal Link Dist (ft)		970			323			894			985	
Turn Bay Length (ft)	150			140		140	200		200	200		160
Base Capacity (vph)	1008	1068		251	259	396	326	1973	746	608	1830	1018
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	19		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.53		0.29	0.28	0.15	0.30	0.78	0.05	0.28	0.67	0.20

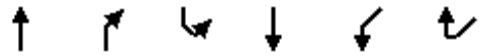
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 70 (47%), Referenced to phase 5:SBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 32.4		Intersection LOS: C	
Intersection Capacity Utilization 76.1%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 15: Bluebonnet & Picardy/Mall Drive 2

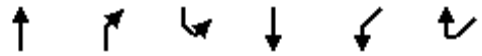


Lane Group	ø11	ø12	ø13	ø14
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	3.0
Minimum Split (s)	10.0	22.0	10.0	9.0
Total Split (s)	17.0	24.0	50.0	59.0
Total Split (%)	11%	16%	33%	39%
Maximum Green (s)	11.0	18.0	44.0	53.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	1.0
Minimum Gap (s)	3.0	3.0	3.0	0.2
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



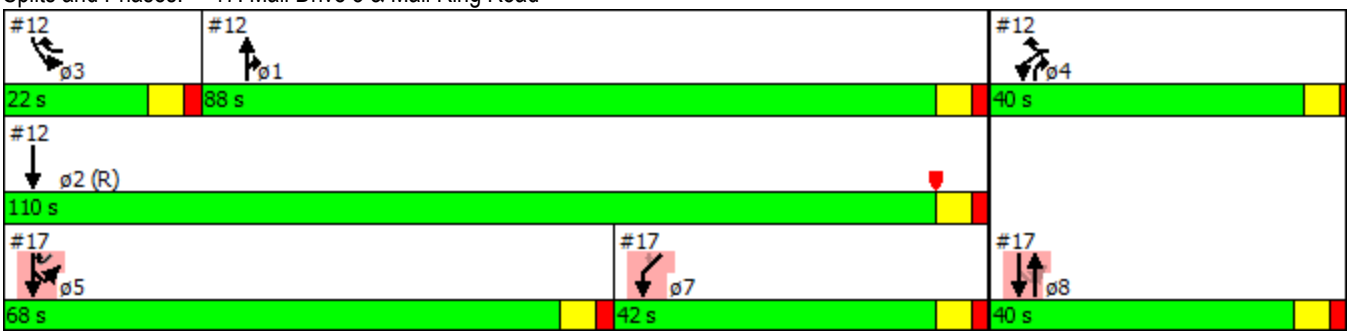
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Lane Configurations										
Volume (vph)	219	193	240	232	186	166				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00				
Frt	0.930					0.850				
Flt Protected			0.950		0.950					
Satd. Flow (prot)	3291	0	1770	1863	1770	1583				
Flt Permitted			0.326		0.950					
Satd. Flow (perm)	3291	0	607	1863	1770	1583				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)	139					180				
Link Speed (mph)	30			30	30					
Link Distance (ft)	797			352	1050					
Travel Time (s)	18.1			8.0	23.9					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Adj. Flow (vph)	238	210	261	252	202	180				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	448	0	261	252	202	180				
Enter Blocked Intersection	No	No	No	No	No	No				
Lane Alignment	Left	Right	Left	Left	Left	Right				
Median Width(ft)	0			12	12					
Link Offset(ft)	0			0	0					
Crosswalk Width(ft)	16			16	16					
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)		9	15		15	9				
Number of Detectors	2		1	2	1	1				
Detector Template	Thru		Left	Thru	Left	Right				
Leading Detector (ft)	100		20	100	20	20				
Trailing Detector (ft)	0		0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0				
Detector 1 Size(ft)	6		20	6	20	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel										
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0				
Detector 2 Position(ft)	94			94						
Detector 2 Size(ft)	6			6						
Detector 2 Type	Cl+Ex			Cl+Ex						
Detector 2 Channel										
Detector 2 Extend (s)	0.0			0.0						
Turn Type	NA		D.P+P	NA	Prot	pm+ov				
Protected Phases	8		5	5 8	7	5	1	2	3	4
Permitted Phases			8			7				
Detector Phase	8		5	5 8	7	5				
Switch Phase										
Minimum Initial (s)	34.0		4.0		4.0	4.0	24.0	34.0	4.0	4.0
Minimum Split (s)	40.0		10.0		22.0	10.0	30.0	40.0	10.0	10.0

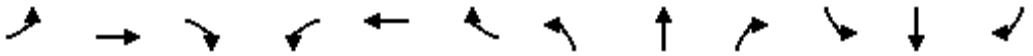


Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Total Split (s)	40.0		68.0		42.0	68.0	88.0	110.0	22.0	40.0
Total Split (%)	26.7%		45.3%		28.0%	45.3%	59%	73%	15%	27%
Maximum Green (s)	34.0		62.0		36.0	62.0	82.0	104.0	16.0	35.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0		2.0	2.0	2.0	2.0	2.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0				
Total Lost Time (s)	6.0		6.0		6.0	6.0				
Lead/Lag			Lead		Lag	Lead	Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	Yes				
Vehicle Extension (s)	4.3		2.5		3.0	2.5	4.3	4.3	2.0	2.5
Minimum Gap (s)	2.2		0.2		3.0	0.2	2.2	2.2	0.2	0.2
Time Before Reduce (s)	30.0		0.0		0.0	0.0	20.0	30.0	0.0	0.0
Time To Reduce (s)	15.0		0.0		0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	Min		Max		None	Max	Min	C-Min	None	None
Walk Time (s)					5.0					
Flash Dont Walk (s)					11.0					
Pedestrian Calls (#/hr)					0					
Act Effct Green (s)	34.0		108.0	114.0	24.0	104.0				
Actuated g/C Ratio	0.23		0.72	0.76	0.16	0.69				
v/c Ratio	0.53		0.26	0.18	0.71	0.16				
Control Delay	37.0		8.2	6.1	44.1	0.3				
Queue Delay	0.0		0.6	0.7	0.0	0.0				
Total Delay	37.0		8.9	6.8	44.1	0.3				
LOS	D		A	A	D	A				
Approach Delay	37.0			7.8	23.5					
Approach LOS	D			A	C					
Queue Length 50th (ft)	140		48	46	168	0				
Queue Length 95th (ft)	198		115	111	290	0				
Internal Link Dist (ft)	717			272	970					
Turn Bay Length (ft)										
Base Capacity (vph)	853		1010	1415	424	1152				
Starvation Cap Reductn	0		447	851	0	0				
Spillback Cap Reductn	0		0	0	0	0				
Storage Cap Reductn	0		0	0	0	0				
Reduced v/c Ratio	0.53		0.46	0.45	0.48	0.16				

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 98 (65%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 22.0		Intersection LOS: C	
Intersection Capacity Utilization 66.9%		ICU Level of Service C	
Analysis Period (min) 15			

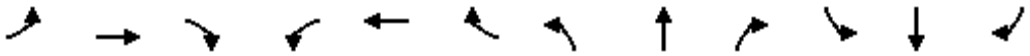
Splits and Phases: 17: Mall Drive 3 & Mall Ring Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	2164	35	203	1509	35	0	0	404	23	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		200	300		100	0		0	65		0
Storage Lanes	1		1	2		1	0		2	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.925	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1723	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1723	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109			37			249		4	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1065			834			318			371	
Travel Time (s)		16.1			12.6			7.2			8.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	16	2278	37	214	1588	37	0	0	425	24	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	2278	37	214	1588	37	0	0	425	24	8	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1			1	1	1	
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45			45	45	45	
Trailing Detector (ft)	-6	284	-6	-6	284	-6			-6	-6	-6	
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			-6	-6	-6	
Detector 1 Size(ft)	51	51	51	51	51	51			51	51	51	
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA	Perm	Prot	NA	custom			Over	Perm	NA	
Protected Phases	1	7		5	4	2			5		2	
Permitted Phases			7			4				2		
Detector Phase	1	7	7	5	4	2			5	2	2	

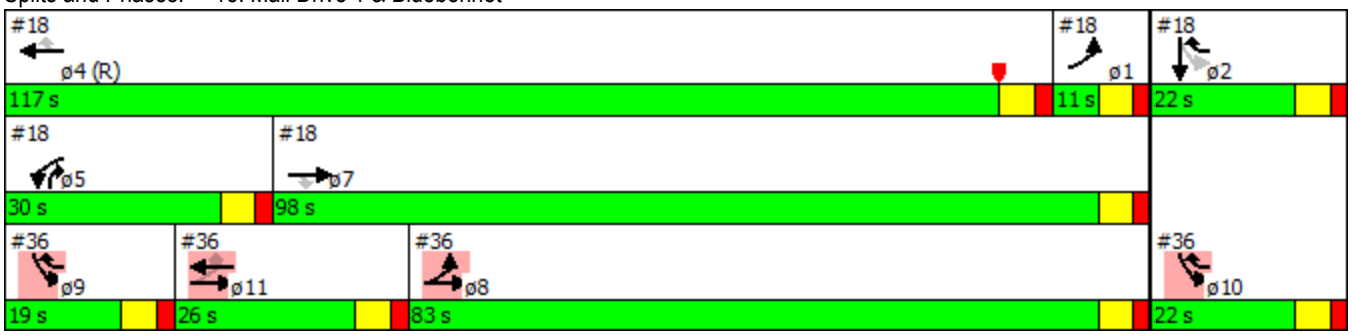
Lane Group	ø8	ø9	ø10	ø11
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	8	9	10	11
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	14.0	4.0	14.0	4.0			4.0	4.0	4.0	
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	10.0			10.0	10.0	10.0	
Total Split (s)	11.0	98.0	98.0	30.0	117.0	22.0			30.0	22.0	22.0	
Total Split (%)	7.3%	65.3%	65.3%	20.0%	78.0%	14.7%			20.0%	14.7%	14.7%	
Maximum Green (s)	5.0	92.0	92.0	24.0	111.0	16.0			24.0	16.0	16.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0			6.0	6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	4.3	4.3	2.5	4.3	2.0			2.5	2.0	2.0	
Minimum Gap (s)	0.2	2.2	2.2	0.2	2.2	0.2			0.2	0.2	0.2	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	34.0	0.0			0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	15.0	0.0			0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Min	None			None	None	None	
Act Effct Green (s)	14.0	104.0	104.0	16.3	115.8	138.3			16.3	11.7	11.7	
Actuated g/C Ratio	0.09	0.69	0.69	0.11	0.77	0.92			0.11	0.08	0.08	
v/c Ratio	0.10	0.65	0.03	0.57	0.40	0.03			0.81	0.18	0.06	
Control Delay	55.8	9.5	0.0	73.1	7.3	0.1			44.5	65.9	46.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Delay	55.8	9.5	0.0	73.1	7.3	0.1			44.5	65.9	46.2	
LOS	E	A	A	E	A	A			D	E	D	
Approach Delay		9.7			14.8						61.0	
Approach LOS		A			B						E	
Queue Length 50th (ft)	17	298	0	98	110	0			106	22	4	
Queue Length 95th (ft)	m11	313	m0	131	451	m0			159	52	22	
Internal Link Dist (ft)		985			754			238			291	
Turn Bay Length (ft)	140		200	300		100				65		
Base Capacity (vph)	164	3524	1130	549	4206	1451			655	188	187	
Starvation Cap Reductn	0	0	0	0	0	0			5	0	0	
Spillback Cap Reductn	0	0	0	0	0	0			0	0	0	
Storage Cap Reductn	0	0	0	0	0	0			0	0	0	
Reduced v/c Ratio	0.10	0.65	0.03	0.39	0.38	0.03			0.65	0.13	0.04	

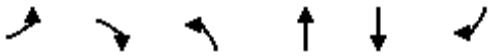
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 108 (72%), Referenced to phase 4:WBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 15.3		Intersection LOS: B	
Intersection Capacity Utilization 74.3%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 18: Mall Drive 1 & Bluebonnet



Lane Group	ø8	ø9	ø10	ø11
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	14.0
Minimum Split (s)	22.0	10.0	22.0	20.0
Total Split (s)	83.0	19.0	22.0	26.0
Total Split (%)	55%	13%	15%	17%
Maximum Green (s)	77.0	13.0	16.0	20.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	4.3
Minimum Gap (s)	3.0	3.0	3.0	2.2
Time Before Reduce (s)	0.0	0.0	0.0	34.0
Time To Reduce (s)	0.0	0.0	0.0	15.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Lane Configurations												
Volume (vph)	295	191	133	301	161	59						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Frt		0.850				0.850						
Flt Protected	0.950		0.950									
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583						
Flt Permitted	0.950		0.596									
Satd. Flow (perm)	1770	1583	1110	1863	1863	1583						
Right Turn on Red		Yes				Yes						
Satd. Flow (RTOR)		171				64						
Link Speed (mph)	30			30	30							
Link Distance (ft)	403			1050	819							
Travel Time (s)	9.2			23.9	18.6							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	321	208	145	327	175	64						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	321	208	145	327	175	64						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Right	Left	Left	Left	Right						
Median Width(ft)	36			12	0							
Link Offset(ft)	0			0	0							
Crosswalk Width(ft)	16			16	16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15	9	15			9						
Number of Detectors	1	1	1	2	2	1						
Detector Template	Left	Right	Left	Thru	Thru	Right						
Leading Detector (ft)	20	20	20	100	100	20						
Trailing Detector (ft)	0	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0	0						
Detector 1 Size(ft)	20	20	20	6	6	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)				94	94							
Detector 2 Size(ft)				6	6							
Detector 2 Type				Cl+Ex	Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)				0.0	0.0							
Turn Type	Prot	Free	D.P+P	NA	NA	pm+ov						
Protected Phases	12 13		11	11 14	14	12 13	1	2	3	5	6	8
Permitted Phases		Free	14			14						
Detector Phase	12 13		11	11 14	14	12 13						
Switch Phase												
Minimum Initial (s)			4.0		3.0		3.0	3.0	3.0	21.0	3.0	3.0
Minimum Split (s)			10.0		9.0		11.0	9.0	9.0	27.0	11.0	9.0

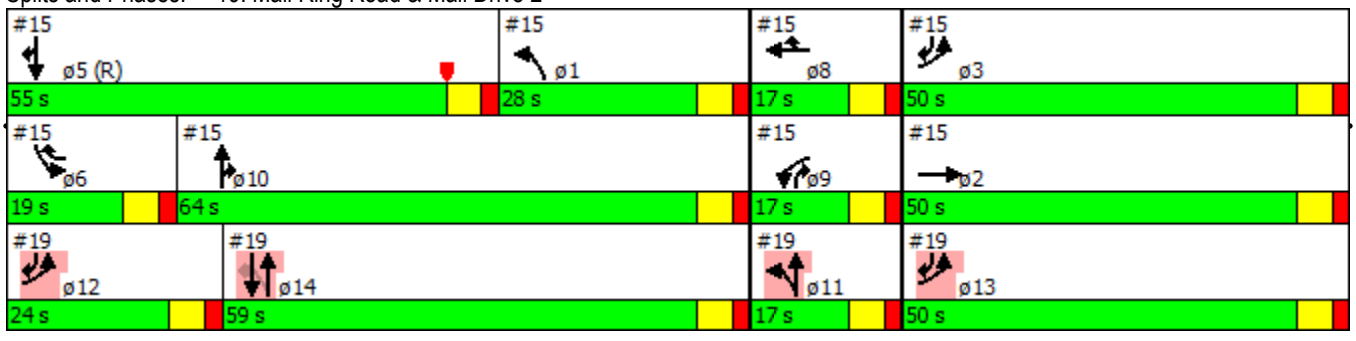
Lane Group	ø9	ø10	ø12	ø13
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	9	10	12	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	21.0	4.0	4.0
Minimum Split (s)	9.0	27.0	22.0	10.0

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Total Split (s)			17.0		59.0		28.0	50.0	50.0	55.0	19.0	17.0
Total Split (%)			11.3%		39.3%		19%	33%	33%	37%	13%	11%
Maximum Green (s)			11.0		53.0		22.0	44.0	44.0	49.0	13.0	11.0
Yellow Time (s)			4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)			2.0		2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0		0.0							
Total Lost Time (s)			6.0		6.0							
Lead/Lag					Lag		Lag			Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0		1.0		3.0	1.0	1.5	4.3	1.0	1.0
Minimum Gap (s)			3.0		0.2		0.2	0.2	0.2	2.2	0.2	0.2
Time Before Reduce (s)			0.0		0.0		0.0	0.0	0.0	28.0	0.0	0.0
Time To Reduce (s)			0.0		0.0		0.0	0.0	0.0	15.0	0.0	0.0
Recall Mode			None		None		None	None	None	C-Min	None	None
Act Effct Green (s)	70.1	150.0	61.9	67.9	54.4	130.5						
Actuated g/C Ratio	0.47	1.00	0.41	0.45	0.36	0.87						
v/c Ratio	0.39	0.13	0.30	0.39	0.26	0.05						
Control Delay	20.5	0.2	41.3	44.1	35.4	0.1						
Queue Delay	0.4	0.0	0.0	0.0	0.0	0.0						
Total Delay	20.9	0.2	41.3	44.1	35.4	0.1						
LOS	C	A	D	D	D	A						
Approach Delay	12.8			43.2	25.9							
Approach LOS	B			D	C							
Queue Length 50th (ft)	65	0	118	282	173	0						
Queue Length 95th (ft)	252	0	167	369	247	0						
Internal Link Dist (ft)	323			970	739							
Turn Bay Length (ft)												
Base Capacity (vph)	846	1583	532	880	713	1372						
Starvation Cap Reductn	200	0	0	0	0	0						
Spillback Cap Reductn	0	0	0	0	0	0						
Storage Cap Reductn	0	0	0	0	0	0						
Reduced v/c Ratio	0.50	0.13	0.27	0.37	0.25	0.05						

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 70 (47%), Referenced to phase 5:SBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 26.9 Intersection LOS: C
Intersection Capacity Utilization 47.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 19: Mall Ring Road & Mall Drive 2

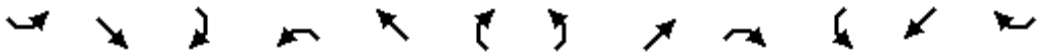


Lane Group	ø9	ø10	ø12	ø13
Total Split (s)	17.0	64.0	24.0	50.0
Total Split (%)	11%	43%	16%	33%
Maximum Green (s)	11.0	58.0	18.0	44.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?			Yes	
Vehicle Extension (s)	1.0	4.3	3.0	3.0
Minimum Gap (s)	0.2	0.2	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	205	1	613	0	0	0	0	2092	498	609	1134	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		0	0		0	400		0	300		0
Storage Lanes	1		1	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950	0.953								0.950		
Satd. Flow (prot)	1681	1686	1583	0	0	0	0	6408	1583	1770	3539	0
Flt Permitted	0.950	0.953								0.950		
Satd. Flow (perm)	1681	1686	1583	0	0	0	0	6408	1583	1770	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			441						314			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1072			1024			834			410	
Travel Time (s)		24.4			23.3			12.6			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	216	1	645	0	0	0	0	2202	524	641	1194	0
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	108	109	645	0	0	0	0	2202	524	641	1194	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			25	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					2	1	1	2	
Detector Template												
Leading Detector (ft)	45	45	45					290	45	45	290	
Trailing Detector (ft)	-6	-6	-6					284	-6	-6	284	
Detector 1 Position(ft)	-6	-6	-6					-6	-6	-6	-6	
Detector 1 Size(ft)	51	51	51					51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA	Free					NA	Perm	Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2			
Detector Phase	4	4						2	2	1	6	

Lane Group	ø5	ø8
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	5	8
Permitted Phases		
Detector Phase		



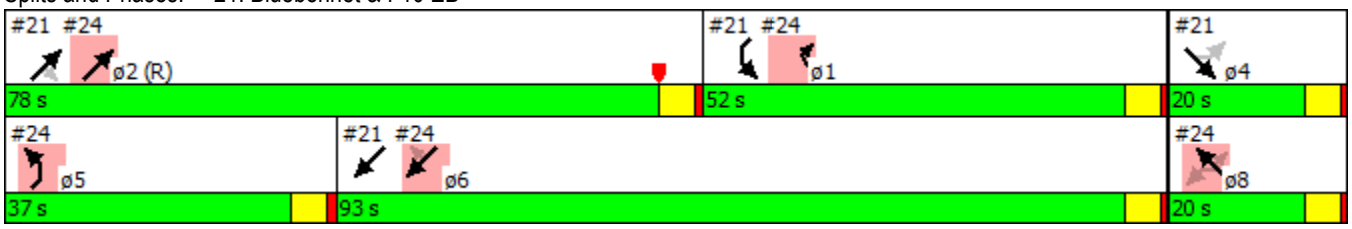
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)	3.0	3.0						10.0	10.0	3.0	10.0	
Minimum Split (s)	20.0	20.0						20.0	20.0	8.0	20.0	
Total Split (s)	20.0	20.0						78.0	78.0	52.0	93.0	
Total Split (%)	13.3%	13.3%						52.0%	52.0%	34.7%	62.0%	
Maximum Green (s)	15.0	15.0						73.0	73.0	47.0	88.0	
Yellow Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0	2.0	2.0	6.0	
Recall Mode	None	None						C-Max	C-Max	None	Max	
Act Effct Green (s)	13.0	13.0	150.0					75.0	75.0	47.0	88.0	
Actuated g/C Ratio	0.09	0.09	1.00					0.50	0.50	0.31	0.59	
v/c Ratio	0.74	0.75	0.41					0.69	0.55	1.16	0.58	
Control Delay	95.2	96.0	0.8					28.2	10.3	113.6	5.6	
Queue Delay	0.0	0.0	0.0					0.1	0.0	1.1	0.7	
Total Delay	95.2	96.0	0.8					28.3	10.3	114.6	6.3	
LOS	F	F	A					C	B	F	A	
Approach Delay		24.7						24.8			44.1	
Approach LOS		C						C			D	
Queue Length 50th (ft)	109	110	0					643	118	~758	61	
Queue Length 95th (ft)	#189	#191	0					623	232	#988	77	
Internal Link Dist (ft)		992			944			754			330	
Turn Bay Length (ft)	375									300		
Base Capacity (vph)	168	168	1583					3203	948	554	2076	
Starvation Cap Reductn	0	0	0					0	0	69	500	
Spillback Cap Reductn	0	0	0					182	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.64	0.65	0.41					0.73	0.55	1.32	0.76	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 143 (95%), Referenced to phase 2:NET, Start of Yellow			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.16			
Intersection Signal Delay: 31.3		Intersection LOS: C	
Intersection Capacity Utilization 82.8%		ICU Level of Service E	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

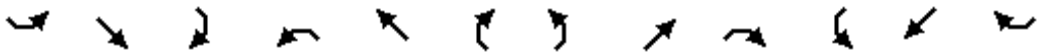
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 21: Bluebonnet & I-10 EB



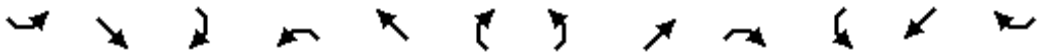
Lane Group	ø5	ø8
Switch Phase		
Minimum Initial (s)	3.0	3.0
Minimum Split (s)	8.0	20.0
Total Split (s)	37.0	20.0
Total Split (%)	25%	13%
Maximum Green (s)	32.0	15.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?		
Vehicle Extension (s)	3.5	2.0
Recall Mode	Max	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	0	0	145	4	384	718	1579	0	0	1598	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		525	300		0	0		575
Storage Lanes	0		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt						0.850						0.850
Flt Protected				0.950	0.955		0.950					
Satd. Flow (prot)	0	0	0	1681	1690	1583	3433	3539	0	0	3539	1583
Flt Permitted				0.950	0.955		0.950					
Satd. Flow (perm)	0	0	0	1681	1690	1583	3433	3539	0	0	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						51						316
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		894			1008			410			866	
Travel Time (s)		20.3			22.9			6.2			13.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	153	4	404	756	1662	0	0	1682	316
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	0	0	78	79	404	756	1662	0	0	1682	316
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			40			50	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			2	1
Detector Template												
Leading Detector (ft)				45	45	45	45	290			290	45
Trailing Detector (ft)				-6	-6	-6	-6	284			284	-6
Detector 1 Position(ft)				-6	-6	-6	-6	-6			-6	-6
Detector 1 Size(ft)				51	51	51	51	51			51	51
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call			Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type				Perm	NA	custom	Prot	NA			NA	Perm
Protected Phases					8	1	5	2			6	
Permitted Phases				8		8						6
Detector Phase				8	8	1	5	2			6	6

Lane Group	ø4
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)				3.0	3.0	3.0	3.0	10.0			10.0	10.0
Minimum Split (s)				20.0	20.0	8.0	8.0	20.0			20.0	20.0
Total Split (s)				20.0	20.0	52.0	37.0	78.0			93.0	93.0
Total Split (%)				13.3%	13.3%	34.7%	24.7%	52.0%			62.0%	62.0%
Maximum Green (s)				15.0	15.0	47.0	32.0	73.0			88.0	88.0
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
All-Red Time (s)				1.0	1.0	1.0	1.0	1.0			1.0	1.0
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)				5.0	5.0	5.0	5.0	5.0			5.0	5.0
Lead/Lag						Lag	Lead	Lead			Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0	2.0	3.5	2.0			6.0	6.0
Recall Mode				None	None	None	Max	C-Max			Max	Max
Act Effct Green (s)				13.0	13.0	65.0	34.0	75.0			88.0	88.0
Actuated g/C Ratio				0.09	0.09	0.43	0.23	0.50			0.59	0.59
v/c Ratio				0.54	0.54	0.57	0.97	0.94			0.81	0.30
Control Delay				78.8	78.9	30.8	71.5	17.5			37.2	4.6
Queue Delay				0.0	0.0	0.0	15.6	1.4			2.5	0.0
Total Delay				78.8	78.9	30.8	87.1	18.9			39.7	4.6
LOS				E	E	C	F	B			D	A
Approach Delay					44.2			40.3			34.1	
Approach LOS					D			D			C	
Queue Length 50th (ft)				77	78	253	~325	906			845	36
Queue Length 95th (ft)				136	140	358	#522	#1019			927	m61
Internal Link Dist (ft)		814			928			330			786	
Turn Bay Length (ft)						525	300					575
Base Capacity (vph)				168	169	714	778	1769			2076	1059
Starvation Cap Reductn				0	0	0	47	0			268	0
Spillback Cap Reductn				0	0	0	0	35			253	0
Storage Cap Reductn				0	0	0	0	0			0	0
Reduced v/c Ratio				0.46	0.47	0.57	1.03	0.96			0.93	0.30

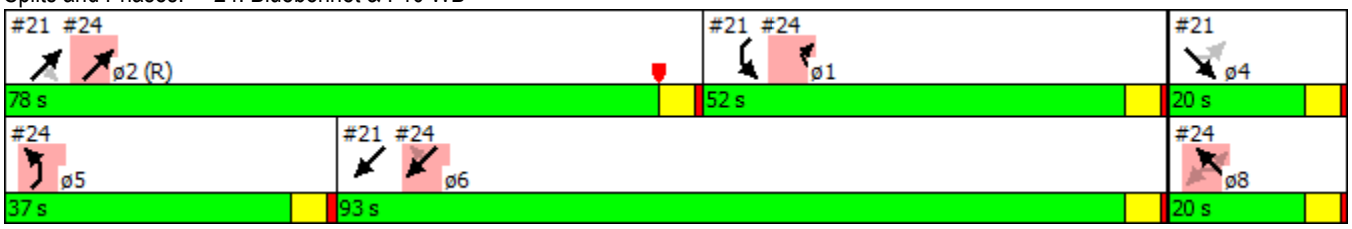
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 143 (95%), Referenced to phase 2:NET, Start of Yellow			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.16			
Intersection Signal Delay: 38.2		Intersection LOS: D	
Intersection Capacity Utilization 82.8%		ICU Level of Service E	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

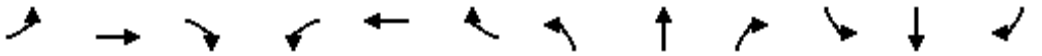
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 24: Bluebonnet & I-10 WB

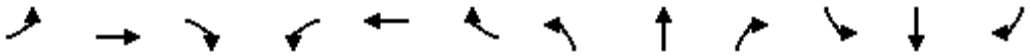


Lane Group	ø4
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	20.0
Total Split (s)	20.0
Total Split (%)	13%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	98	16	95	548	84	192	42	1733	187	39	1255	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		200	300		175	175		175
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.872			0.937	0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3086	0	3433	1658	1504	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.105			0.050		
Satd. Flow (perm)	1770	3086	0	3433	1658	1504	196	3539	1583	93	3539	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		95										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		475			1072			866			1049	
Travel Time (s)		10.8			24.4			13.1			15.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	103	17	100	577	88	202	44	1824	197	41	1321	14
Shared Lane Traffic (%)						31%						
Lane Group Flow (vph)	103	117	0	577	151	139	44	1824	197	41	1321	14
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		60			60			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4		3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases							2			6		
Detector Phase	7	4		3	8	8 1	5	2	2 3	1	6	6 7



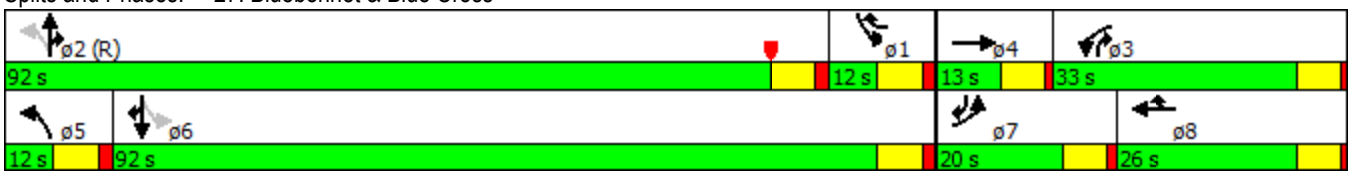
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	5.0		5.0	3.0		3.0	20.0		5.0	20.0	
Minimum Split (s)	8.9	10.9		10.9	8.9		9.6	26.6		11.6	26.6	
Total Split (s)	20.0	13.0		33.0	26.0		12.0	92.0		12.0	92.0	
Total Split (%)	13.3%	8.7%		22.0%	17.3%		8.0%	61.3%		8.0%	61.3%	
Maximum Green (s)	14.1	7.1		27.1	20.1		5.4	85.4		5.4	85.4	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	0.9	0.9		0.9	0.9		1.6	1.6		1.6	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.9	5.9		5.9	5.9		6.6	6.6		6.6	6.6	
Lead/Lag	Lead	Lead		Lag	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		2.5	1.5		1.5	5.0		1.5	5.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	11.8	5.8		27.6	21.6	28.4	85.5	85.5	119.1	88.6	88.6	106.3
Actuated g/C Ratio	0.08	0.04		0.18	0.14	0.19	0.57	0.57	0.79	0.59	0.59	0.71
v/c Ratio	0.74	0.56		0.91	0.63	0.49	0.27	0.90	0.16	0.34	0.63	0.01
Control Delay	96.9	29.7		79.5	73.7	51.9	8.9	14.2	2.2	39.3	20.1	5.7
Queue Delay	0.0	0.1		0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.6	0.0
Total Delay	96.9	29.8		79.5	73.7	51.9	8.9	15.6	2.2	39.3	20.8	5.7
LOS	F	C		E	E	D	A	B	A	D	C	A
Approach Delay		61.2			74.0			14.2			21.2	
Approach LOS		E			E			B			C	
Queue Length 50th (ft)	100	11		285	148	103	8	183	23	18	468	5
Queue Length 95th (ft)	#167	45		#401	#238	165	m9	m198	m21	29	403	m6
Internal Link Dist (ft)		395			992			786			969	
Turn Bay Length (ft)	75			200		200	300		175	175		175
Base Capacity (vph)	166	236		640	239	284	168	2017	1246	122	2091	1146
Starvation Cap Reductn	0	0		0	0	0	0	75	0	0	0	0
Spillback Cap Reductn	0	4		0	0	0	0	0	0	0	387	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.50		0.90	0.63	0.49	0.26	0.94	0.16	0.34	0.78	0.01

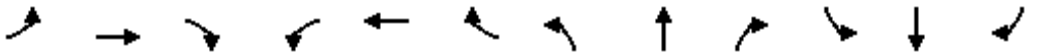
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 7 (5%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 30.1		Intersection LOS: C	
Intersection Capacity Utilization 83.0%		ICU Level of Service E	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

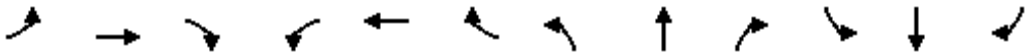
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 27: Bluebonnet & Blue Cross





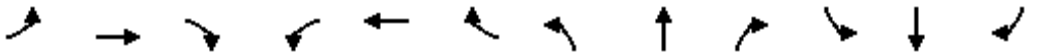
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	1	16	34	0	4	32	1975	16	2	1257	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		130	150		185
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.921			0.986				0.850			0.850
Flt Protected		0.981			0.957		0.950			0.950		
Satd. Flow (prot)	0	1683	0	0	1758	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.895			0.726		0.198			0.079		
Satd. Flow (perm)	0	1535	0	0	1333	0	369	3539	1583	147	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			22				22			22
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1129			1330			1049			1811	
Travel Time (s)		25.7			30.2			15.9			27.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	1	17	36	0	4	34	2079	17	2	1323	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	29	0	0	40	0	34	2079	17	2	1323	8
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



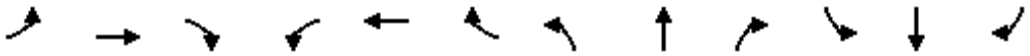
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	11.0	11.0		11.0	11.0		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	30.0	30.0		30.0	30.0		120.0	120.0	120.0	120.0	120.0	120.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		80.0%	80.0%	80.0%	80.0%	80.0%	80.0%
Maximum Green (s)	24.0	24.0		24.0	24.0		114.0	114.0	114.0	114.0	114.0	114.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		7.6			7.6		133.8	133.8	133.8	133.8	133.8	133.8
Actuated g/C Ratio		0.05			0.05		0.89	0.89	0.89	0.89	0.89	0.89
v/c Ratio		0.31			0.45		0.10	0.66	0.01	0.02	0.42	0.01
Control Delay		45.8			53.8		1.2	1.7	0.0	2.0	2.0	0.1
Queue Delay		0.0			0.0		0.0	0.1	0.0	0.0	0.0	0.0
Total Delay		45.8			53.8		1.2	1.8	0.0	2.0	2.0	0.1
LOS		D			D		A	A	A	A	A	A
Approach Delay		45.8			53.8			1.8			2.0	
Approach LOS		D			D			A			A	
Queue Length 50th (ft)		11			17		2	80	0	0	76	0
Queue Length 95th (ft)		46			58		m2	88	m0	m1	134	m0
Internal Link Dist (ft)		1049			1250			969			1731	
Turn Bay Length (ft)							150		130	150		185
Base Capacity (vph)		259			231		329	3157	1414	131	3157	1414
Starvation Cap Reductn		0			0		0	181	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.11			0.17		0.10	0.70	0.01	0.02	0.42	0.01

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 46 (31%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 2.8		Intersection LOS: A	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 30: Bluebonnet & Gail



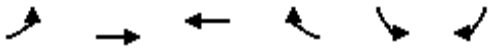
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	9	76	20	4	5	177	1721	90	11	1171	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.890			0.977				0.850			0.850
Flt Protected		0.995			0.966		0.950			0.950		
Satd. Flow (prot)	0	1650	0	0	1758	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.963			0.420		0.217			0.110		
Satd. Flow (perm)	0	1597	0	0	764	0	404	3539	1583	205	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		80			5				70			34
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1794			2049			1811			2409	
Travel Time (s)		40.8			46.6			27.4			36.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	9	9	80	21	4	5	186	1812	95	12	1233	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	98	0	0	30	0	186	1812	95	12	1233	34
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	9.2	9.2		9.2	9.2		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	30.0	30.0		30.0	30.0		120.0	120.0	120.0	120.0	120.0	120.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		80.0%	80.0%	80.0%	80.0%	80.0%	80.0%
Maximum Green (s)	23.8	23.8		23.8	23.8		114.0	114.0	114.0	114.0	114.0	114.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.2	1.2		1.2	1.2		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.2			6.2		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		8.2			8.2		129.6	129.6	129.6	129.6	129.6	129.6
Actuated g/C Ratio		0.05			0.05		0.86	0.86	0.86	0.86	0.86	0.86
v/c Ratio		0.60			0.65		0.53	0.59	0.07	0.07	0.40	0.02
Control Delay		34.7			113.8		8.3	5.6	1.0	2.7	2.7	0.6
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		34.7			113.8		8.3	5.6	1.0	2.7	2.7	0.6
LOS		C			F		A	A	A	A	A	A
Approach Delay		34.7			113.8			5.6			2.6	
Approach LOS		C			F			A			A	
Queue Length 50th (ft)		17			25		75	386	8	1	95	0
Queue Length 95th (ft)		77			62		25	88	m0	6	154	5
Internal Link Dist (ft)		1714			1969			1731			2329	
Turn Bay Length (ft)							150		150	150		150
Base Capacity (vph)		320			125		349	3057	1377	176	3057	1371
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.31			0.24		0.53	0.59	0.07	0.07	0.40	0.02

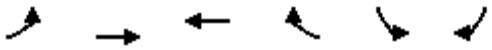
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 45 (30%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 6.3		Intersection LOS: A	
Intersection Capacity Utilization 94.9%		ICU Level of Service F	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 33: Bluebonnet & Oliphant



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Lane Configurations												
Volume (vph)	144	452	123	260	145	96						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.95						
Frt				0.850	0.940							
Flt Protected	0.950				0.971							
Satd. Flow (prot)	1770	1863	1863	1583	3298	0						
Flt Permitted	0.539				0.971							
Satd. Flow (perm)	1004	1863	1863	1583	3298	0						
Right Turn on Red				Yes		Yes						
Satd. Flow (RTOR)				283	104							
Link Speed (mph)		30	30		30							
Link Distance (ft)		819	802		318							
Travel Time (s)		18.6	18.2		7.2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	157	491	134	283	158	104						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	157	491	134	283	262	0						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Right	Left	Right						
Median Width(ft)		12	0		36							
Link Offset(ft)		0	0		0							
Crosswalk Width(ft)		16	16		16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15			9	15	9						
Number of Detectors	1	2	2	1	1							
Detector Template	Left	Thru	Thru	Right	Left							
Leading Detector (ft)	20	100	100	20	20							
Trailing Detector (ft)	0	0	0	0	0							
Detector 1 Position(ft)	0	0	0	0	0							
Detector 1 Size(ft)	20	6	6	20	20							
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex							
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0							
Detector 2 Position(ft)		94	94									
Detector 2 Size(ft)		6	6									
Detector 2 Type		Cl+Ex	Cl+Ex									
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0									
Turn Type	D.P+P	NA	NA	pm+ov	Prot							
Protected Phases	8	8 11	11	9 10	9 10		1	2	4	5	7	9
Permitted Phases	11			11								
Detector Phase	8	8 11	11	9 10	9 10							
Switch Phase												
Minimum Initial (s)	4.0		14.0				4.0	4.0	14.0	4.0	14.0	4.0
Minimum Split (s)	22.0		20.0				10.0	10.0	20.0	10.0	20.0	10.0

Lane Group	ø10
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	10
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	22.0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Total Split (s)	83.0		26.0				11.0	22.0	117.0	30.0	98.0	19.0
Total Split (%)	55.3%		17.3%				7%	15%	78%	20%	65%	13%
Maximum Green (s)	77.0		20.0				5.0	16.0	111.0	24.0	92.0	13.0
Yellow Time (s)	4.0		4.0				4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0				2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0									
Total Lost Time (s)	6.0		6.0									
Lead/Lag			Lag				Lag		Lead	Lead	Lag	Lead
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0		4.3				2.5	2.0	4.3	2.5	4.3	3.0
Minimum Gap (s)	3.0		2.2				0.2	0.2	2.2	0.2	2.2	3.0
Time Before Reduce (s)	0.0		34.0				0.0	0.0	34.0	0.0	0.0	0.0
Time To Reduce (s)	0.0		15.0				0.0	0.0	15.0	0.0	0.0	0.0
Recall Mode	None		None				None	None	C-Min	None	None	None
Act Effct Green (s)	108.3	114.3	21.8	51.5	23.7							
Actuated g/C Ratio	0.72	0.76	0.15	0.34	0.16							
v/c Ratio	0.13	0.35	0.50	0.39	0.43							
Control Delay	3.6	4.4	64.7	4.6	90.5							
Queue Delay	0.0	0.0	0.0	0.0	0.0							
Total Delay	3.6	4.4	64.7	4.6	90.5							
LOS	A	A	E	A	F							
Approach Delay		4.2	23.9		90.5							
Approach LOS		A	C		F							
Queue Length 50th (ft)	17	54	122	0	113							
Queue Length 95th (ft)	73	292	188	58	153							
Internal Link Dist (ft)		739	722		238							
Turn Bay Length (ft)												
Base Capacity (vph)	1166	1404	285	719	735							
Starvation Cap Reductn	0	0	0	0	0							
Spillback Cap Reductn	0	0	0	0	0							
Storage Cap Reductn	0	0	0	0	0							
Reduced v/c Ratio	0.13	0.35	0.47	0.39	0.36							

Intersection Summary

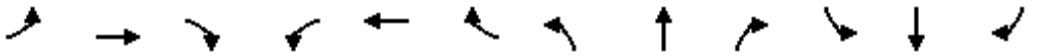
Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 108 (72%), Referenced to phase 4:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 27.4 Intersection LOS: C
Intersection Capacity Utilization 41.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 36: Mall Ring Road & Mall Drive 1

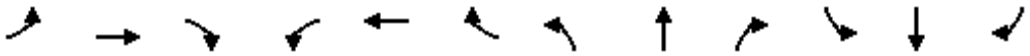
Lane Group	ø10
Total Split (s)	22.0
Total Split (%)	15%
Maximum Green (s)	16.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Minimum Gap (s)	3.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

M.14 2017 NO BUILD WEEKEND – BLUEBONNET BOULEVARD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	174	719	849	456	852	457	285	618	199	328	600	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		250	325		375	350		0	250		150
Storage Lanes	2		1	2		1	2		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Frt			0.850			0.850		0.964				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3412	0	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3412	0	3433	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								31				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		2445			3864			2201			709	
Travel Time (s)		37.0			58.5			33.3			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	183	757	894	480	897	481	300	651	209	345	632	140
Shared Lane Traffic (%)												
Lane Group Flow (vph)	183	757	894	480	897	481	300	860	0	345	632	140
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45	45	290		45	290	45
Trailing Detector (ft)	-6	284	-6	-6	284	-6	-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6	-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51	51	51		51	51	51
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		284			284			284			284	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Extend			Extend			Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8		7	4	4 5
Permitted Phases												
Detector Phase	5	2	2 3	1	6	6 7	3	8		7	4	4 5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	10.0		4.0	10.0	
Minimum Split (s)	11.0	34.5		11.0	37.5		11.0	41.0		11.0	41.0	
Total Split (s)	16.0	38.0		25.0	47.0		43.0	58.0		29.0	44.0	
Total Split (%)	10.7%	25.3%		16.7%	31.3%		28.7%	38.7%		19.3%	29.3%	
Maximum Green (s)	9.0	31.5		18.0	40.5		36.0	51.0		22.0	37.0	
Yellow Time (s)	5.0	4.5		5.0	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	6.5		7.0	6.5		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.3		3.0	4.3		3.0	3.9		3.0	3.9	
Minimum Gap (s)	0.2	2.2		0.2	2.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	15.0		0.0	15.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0		0.0	10.0		0.0	10.0	
Recall Mode	None	Min		None	Min		None	Min		None	C-Min	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		23.0			26.0			29.0			29.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	9.0	31.5	74.8	18.0	40.5	67.4	42.8	53.1		19.9	30.2	39.2
Actuated g/C Ratio	0.06	0.21	0.50	0.12	0.27	0.45	0.29	0.35		0.13	0.20	0.26
v/c Ratio	0.89	1.02	1.13	1.17	0.94	0.68	0.31	0.70		0.76	0.89	0.34
Control Delay	109.0	95.3	98.2	154.3	71.1	38.1	44.1	44.1		58.0	52.3	20.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	109.0	95.3	98.2	154.3	71.1	38.1	44.1	44.1		58.0	52.3	20.7
LOS	F	F	F	F	E	D	D	D		E	D	C
Approach Delay		98.1			84.0			44.1			50.1	
Approach LOS		F			F			D			D	
Queue Length 50th (ft)	93	~411	~658	~286	454	361	118	372		169	323	101
Queue Length 95th (ft)	#167	#543	#1345	#402	#583	489	173	455		192	261	46
Internal Link Dist (ft)		2365			3784			2121			629	
Turn Bay Length (ft)	440		250	325		375	350			250		150
Base Capacity (vph)	205	743	789	411	955	733	979	1226		503	872	485
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.89	1.02	1.13	1.17	0.94	0.66	0.31	0.70		0.69	0.72	0.29

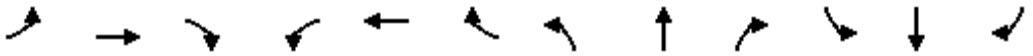
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 88 (59%), Referenced to phase 4:SBT, Start of Yellow			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.17			
Intersection Signal Delay: 74.3		Intersection LOS: E	
Intersection Capacity Utilization 99.2%		ICU Level of Service F	

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Bluebonnet & Perkins



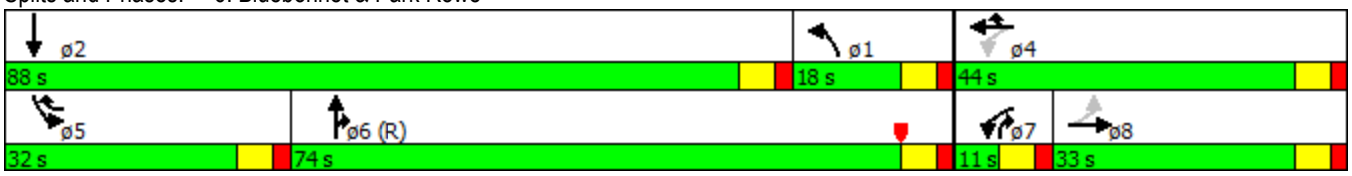
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	138	23	47	47	12	150	61	1117	71	361	968	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		125	160		160	175		0
Storage Lanes	1		0	0		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.899				0.850			0.850		0.987	
Flt Protected	0.950				0.962		0.950			0.950		
Satd. Flow (prot)	1770	1675	0	0	1792	1583	1770	3539	1583	3433	3493	0
Flt Permitted	0.717				0.638		0.950			0.950		
Satd. Flow (perm)	1336	1675	0	0	1188	1583	1770	3539	1583	3433	3493	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		49									11	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		511			1048			709			2556	
Travel Time (s)		11.6			23.8			10.7			38.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	145	24	49	49	13	158	64	1176	75	380	1019	99
Shared Lane Traffic (%)												
Lane Group Flow (vph)	145	73	0	0	62	158	64	1176	75	380	1118	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290	45	45	290	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284	-6	-6	284	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6	-6	-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	
Protected Phases		8		7	4	4 5	1	6	6 7	5	2	
Permitted Phases	8			4								
Detector Phase	8	8		7	4	4 5	1	6	6 7	5	2	

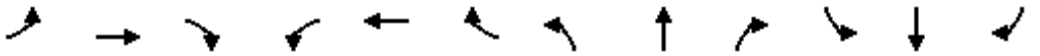
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		3.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	11.0	11.0		9.0	11.0		9.0	21.0		9.0	21.0	
Total Split (s)	33.0	33.0		11.0	44.0		18.0	74.0		32.0	88.0	
Total Split (%)	22.0%	22.0%		7.3%	29.3%		12.0%	49.3%		21.3%	58.7%	
Maximum Green (s)	27.0	27.0		5.0	38.0		12.0	68.0		26.0	82.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag		Lead			Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		1.5	2.0		1.5	4.0		1.5	4.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	20.7	20.7			31.1	57.7	18.8	80.3	90.6	20.7	84.4	
Actuated g/C Ratio	0.14	0.14			0.21	0.38	0.13	0.54	0.60	0.14	0.56	
v/c Ratio	0.79	0.27			0.24	0.26	0.29	0.62	0.08	0.81	0.57	
Control Delay	89.4	24.2			49.0	30.9	57.6	26.6	12.7	75.9	25.1	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.4	0.0	0.0	0.0	
Total Delay	89.4	24.2			49.0	30.9	57.6	27.0	12.7	75.9	25.1	
LOS	F	C			D	C	E	C	B	E	C	
Approach Delay		67.6			36.0			27.7			38.0	
Approach LOS		E			D			C			D	
Queue Length 50th (ft)	139	21			50	105	49	432	25	188	386	
Queue Length 95th (ft)	208	66			88	138	m71	401	m50	237	524	
Internal Link Dist (ft)		431			968			629			2476	
Turn Bay Length (ft)	100					125	160		160	175		
Base Capacity (vph)	244	345			321	659	237	1901	953	595	2073	
Starvation Cap Reductn	0	0			0	0	0	282	0	0	0	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.59	0.21			0.19	0.24	0.27	0.73	0.08	0.64	0.54	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 138 (92%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 35.7 Intersection LOS: D
Intersection Capacity Utilization 70.5% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Bluebonnet & Park Rowe





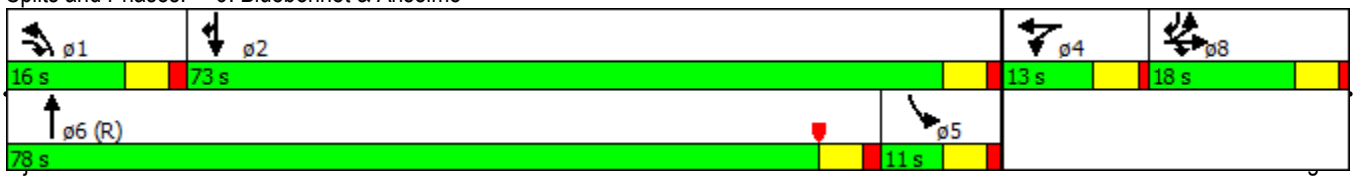
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	198	1	77	0	0	2	63	1342	0	1	1346	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	475		475	50		0	425		0	130		130
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.850							0.850
Flt Protected	0.950	0.953					0.950			0.950		
Satd. Flow (prot)	1681	1686	1583	1863	1583	0	1770	3539	0	1770	3539	1583
Flt Permitted	0.950	0.953					0.950			0.950		
Satd. Flow (perm)	1681	1686	1583	1863	1583	0	1770	3539	0	1770	3539	1583
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)					168							
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1004			740			2556			469	
Travel Time (s)		22.8			16.8			38.7			7.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	208	1	81	0	0	2	66	1413	0	1	1417	149
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	104	105	81	0	2	0	66	1413	0	1	1417	149
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	45	45	45		45	290		45	290	45
Trailing Detector (ft)	-6	-6	-6	-6	-6		-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6		-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51		51	51		51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA		Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4		1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4		1	6		5	2	2 8

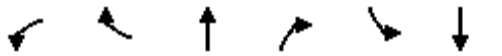
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.5	25.5		8.5	25.5	
Total Split (s)	18.0	18.0		13.0	13.0		16.0	78.0		11.0	73.0	
Total Split (%)	15.0%	15.0%		10.8%	10.8%		13.3%	65.0%		9.2%	60.8%	
Maximum Green (s)	13.0	13.0		8.0	8.0		10.5	72.5		5.5	67.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	6.0		3.0	6.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	14.1	14.1	28.9		7.7		9.3	90.7		5.6	78.1	96.0
Actuated g/C Ratio	0.12	0.12	0.24		0.06		0.08	0.76		0.05	0.65	0.80
v/c Ratio	0.53	0.53	0.21		0.01		0.48	0.53		0.01	0.62	0.12
Control Delay	59.7	59.9	36.9		0.0		64.4	8.4		52.0	9.3	1.9
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	59.7	59.9	36.9		0.0		64.4	8.4		52.0	9.3	1.9
LOS	E	E	D		A		E	A		D	A	A
Approach Delay		53.4			0.0			10.9			8.6	
Approach LOS		D			A			B			A	
Queue Length 50th (ft)	80	80	49		0		50	173		1	126	13
Queue Length 95th (ft)	144	145	95		0		97	432		m2	216	26
Internal Link Dist (ft)		924			660			2476			389	
Turn Bay Length (ft)	475		475				425			130		130
Base Capacity (vph)	206	206	381		262		157	2674		82	2302	1275
Starvation Cap Reductn	0	0	0		0		0	0		0	0	0
Spillback Cap Reductn	0	0	0		0		0	0		0	0	0
Storage Cap Reductn	0	0	0		0		0	0		0	0	0
Reduced v/c Ratio	0.50	0.51	0.21		0.01		0.42	0.53		0.01	0.62	0.12

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 91 (76%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.62
Intersection Signal Delay: 13.5 Intersection LOS: B
Intersection Capacity Utilization 66.2% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Bluebonnet & Anselmo





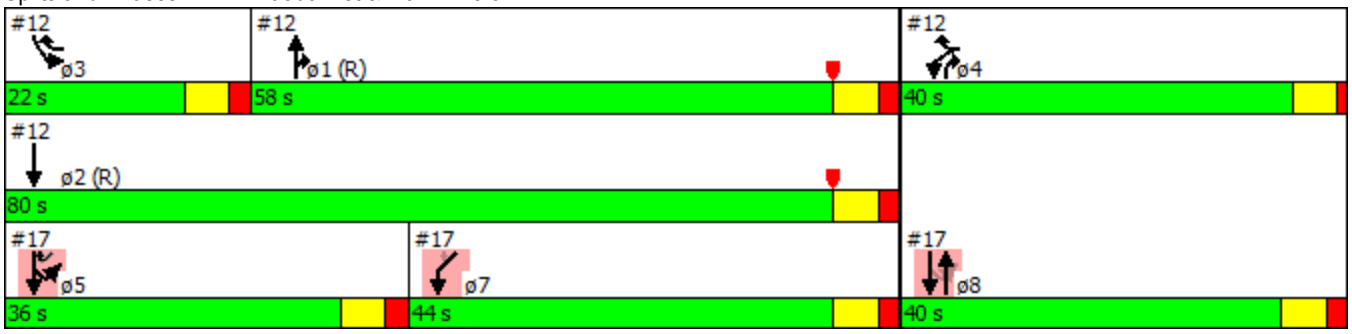
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Lane Configurations									
Volume (vph)	335	155	963	580	113	1154			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	0	100		150	350				
Storage Lanes	2	1		1	1				
Taper Length (ft)	25				25				
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.91			
Frt		0.850		0.850					
Flt Protected	0.950				0.950				
Satd. Flow (prot)	3433	1583	3539	1583	1770	5085			
Flt Permitted	0.950				0.950				
Satd. Flow (perm)	3433	1583	3539	1583	1770	5085			
Right Turn on Red		No		No					
Satd. Flow (RTOR)									
Link Speed (mph)	30		45			45			
Link Distance (ft)	352		390			974			
Travel Time (s)	8.0		5.9			14.8			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95			
Adj. Flow (vph)	353	163	1014	611	119	1215			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	353	163	1014	611	119	1215			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Right	Left	Left			
Median Width(ft)	35		20			20			
Link Offset(ft)	0		0			0			
Crosswalk Width(ft)	16		16			16			
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Turning Speed (mph)	15	9		9	15				
Number of Detectors	1	1	2	1	1	2			
Detector Template									
Leading Detector (ft)	45	45	290	45	45	290			
Trailing Detector (ft)	-6	-6	284	-6	-6	284			
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			
Detector 1 Size(ft)	51	51	51	51	51	51			
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call			
Detector 1 Channel									
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)			284			284			
Detector 2 Size(ft)			6			6			
Detector 2 Type			Extend			Extend			
Detector 2 Channel									
Detector 2 Extend (s)			0.0			0.0			
Turn Type	Prot	pt+ov	NA	pt+ov	Prot	NA			
Protected Phases	4	4 3	1	1 4	3	2	5	7	8
Permitted Phases									
Detector Phase	4	4 3	1	1 4	3	2			

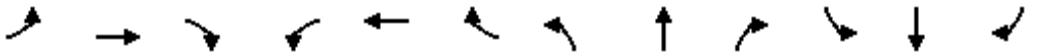
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Switch Phase									
Minimum Initial (s)	4.0		24.0		4.0	34.0	4.0	4.0	34.0
Minimum Split (s)	10.0		30.0		10.0	40.0	10.0	22.0	40.0
Total Split (s)	40.0		58.0		22.0	80.0	36.0	44.0	40.0
Total Split (%)	33.3%		48.3%		18.3%	66.7%	30%	37%	33%
Maximum Green (s)	35.0		52.0		16.0	74.0	30.0	38.0	34.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0			
Total Lost Time (s)	5.0		6.0		6.0	6.0			
Lead/Lag			Lag		Lead		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	
Vehicle Extension (s)	2.5		4.3		2.0	4.3	2.5	3.0	4.3
Minimum Gap (s)	0.2		2.2		0.2	2.2	0.2	3.0	2.2
Time Before Reduce (s)	0.0		20.0		0.0	30.0	0.0	0.0	30.0
Time To Reduce (s)	0.0		15.0		0.0	15.0	0.0	0.0	15.0
Recall Mode	None		C-Min		None	C-Min	None	None	Min
Walk Time (s)								5.0	
Flash Dont Walk (s)								11.0	
Pedestrian Calls (#/hr)								0	
Act Effct Green (s)	35.3	53.9	55.1	95.4	12.6	73.7			
Actuated g/C Ratio	0.29	0.45	0.46	0.80	0.10	0.61			
v/c Ratio	0.35	0.23	0.62	0.49	0.64	0.39			
Control Delay	18.0	7.0	21.6	5.7	84.6	2.4			
Queue Delay	0.0	0.0	0.0	0.1	0.1	0.0			
Total Delay	18.0	7.0	21.6	5.8	84.7	2.4			
LOS	B	A	C	A	F	A			
Approach Delay	14.5		15.7			9.8			
Approach LOS	B		B			A			
Queue Length 50th (ft)	53	28	306	74	99	43			
Queue Length 95th (ft)	85	44	290	289	159	35			
Internal Link Dist (ft)	272		310			894			
Turn Bay Length (ft)		100		150	350				
Base Capacity (vph)	1010	760	1643	1251	241	3135			
Starvation Cap Reductn	0	0	0	0	0	0			
Spillback Cap Reductn	0	0	0	52	4	0			
Storage Cap Reductn	0	0	0	0	0	0			
Reduced v/c Ratio	0.35	0.21	0.62	0.51	0.50	0.39			

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 86 (72%), Referenced to phase 1:NBT and 2:SBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 13.2		Intersection LOS: B	
Intersection Capacity Utilization 56.6%		ICU Level of Service B	

Analysis Period (min) 15

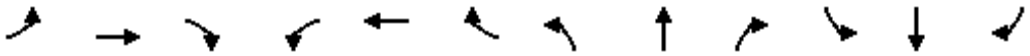
Splits and Phases: 12: Bluebonnet & Mall Drive 3





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	158	67	86	97	62	217	90	927	101	324	1084	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	140		140	200		200	200		160
Storage Lanes	2		0	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		0.916				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3242	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3242	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		91										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1050			403			974			1065	
Travel Time (s)		23.9			9.2			14.8			16.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	166	71	91	102	65	228	95	976	106	341	1141	152
Shared Lane Traffic (%)												
Lane Group Flow (vph)	166	162	0	102	65	228	95	976	106	341	1141	152
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			36			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pt+ov
Protected Phases	3	2		9	8	8 6	1	10	10 9	6	5	5 3
Permitted Phases												
Detector Phase	3	2		9	8	8 6	1	10	10 9	6	5	5 3

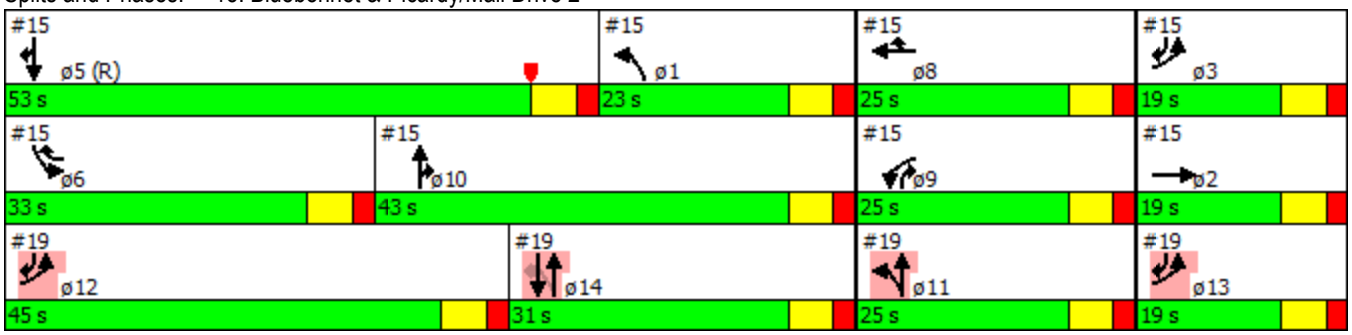
Lane Group	ø11	ø12	ø13	ø14
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	11	12	13	14
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	21.0		3.0	21.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		11.0	27.0		11.0	27.0	
Total Split (s)	19.0	19.0		25.0	25.0		23.0	43.0		33.0	53.0	
Total Split (%)	15.8%	15.8%		20.8%	20.8%		19.2%	35.8%		27.5%	44.2%	
Maximum Green (s)	13.0	13.0		19.0	19.0		17.0	37.0		27.0	47.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.0		1.0	1.0		3.0	4.3		1.0	4.3	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	28.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	15.0	
Recall Mode	None	None		None	None		None	None		None	C-Min	
Act Effct Green (s)	17.7	17.7		12.3	12.3	48.0	14.5	30.3	48.6	35.7	51.5	75.2
Actuated g/C Ratio	0.15	0.15		0.10	0.10	0.40	0.12	0.25	0.40	0.30	0.43	0.63
v/c Ratio	0.33	0.29		0.29	0.18	0.36	0.45	0.76	0.17	0.33	0.52	0.15
Control Delay	46.9	21.4		28.9	27.1	24.7	34.2	26.1	9.1	48.5	17.3	10.6
Queue Delay	0.0	0.0		0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.9	21.4		28.9	27.1	24.8	34.2	26.1	9.1	48.5	17.3	10.6
LOS	D	C		C	C	C	C	C	A	D	B	B
Approach Delay		34.3			26.2			25.2			23.2	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	59	25		36	23	142	73	269	37	91	54	19
Queue Length 95th (ft)	94	58		48	m32	161	m83	84	m14	135	108	52
Internal Link Dist (ft)		970			323			894			985	
Turn Bay Length (ft)	150			140		140	200		200	200		160
Base Capacity (vph)	515	564		550	568	746	259	1576	728	1067	2303	1018
Starvation Cap Reductn	0	0		0	0	63	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.29		0.19	0.11	0.33	0.37	0.62	0.15	0.32	0.50	0.15

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 69 (58%), Referenced to phase 5:SBT, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 25.3		Intersection LOS: C	
Intersection Capacity Utilization 55.1%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

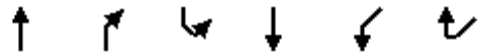
Splits and Phases: 15: Bluebonnet & Picardy/Mall Drive 2



Lane Group	ø11	ø12	ø13	ø14
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	3.0
Minimum Split (s)	10.0	22.0	10.0	9.0
Total Split (s)	25.0	45.0	19.0	31.0
Total Split (%)	21%	38%	16%	26%
Maximum Green (s)	19.0	39.0	13.0	25.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	1.0
Minimum Gap (s)	3.0	3.0	3.0	0.2
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

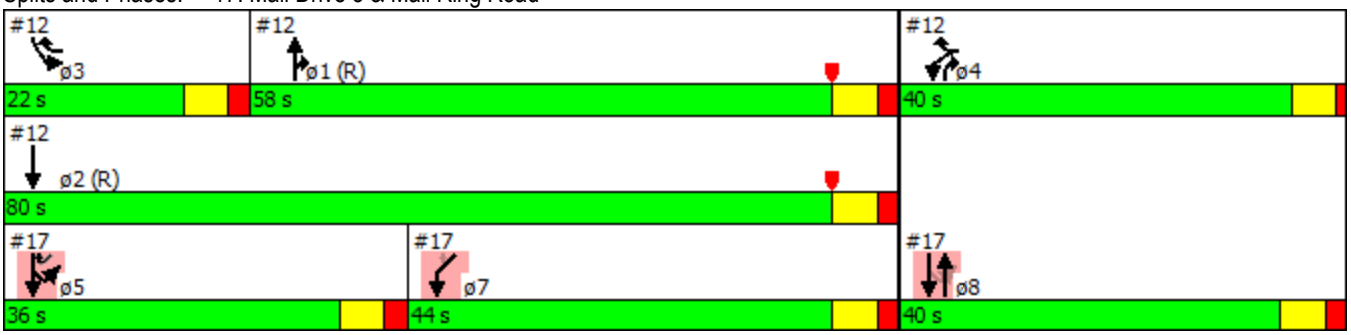
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Lane Configurations										
Volume (vph)	279	158	355	337	221	210				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00				
Frt	0.946					0.850				
Flt Protected			0.950		0.950					
Satd. Flow (prot)	3348	0	1770	1863	1770	1583				
Flt Permitted			0.371		0.950					
Satd. Flow (perm)	3348	0	691	1863	1770	1583				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)	92					228				
Link Speed (mph)	30			30	30					
Link Distance (ft)	797			352	1050					
Travel Time (s)	18.1			8.0	23.9					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Adj. Flow (vph)	303	172	386	366	240	228				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	475	0	386	366	240	228				
Enter Blocked Intersection	No	No	No	No	No	No				
Lane Alignment	Left	Right	Left	Left	Left	Right				
Median Width(ft)	0			12	12					
Link Offset(ft)	0			0	0					
Crosswalk Width(ft)	16			16	16					
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)		9	15		15	9				
Number of Detectors	2		1	2	1	1				
Detector Template	Thru		Left	Thru	Left	Right				
Leading Detector (ft)	100		20	100	20	20				
Trailing Detector (ft)	0		0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0				
Detector 1 Size(ft)	6		20	6	20	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel										
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0				
Detector 2 Position(ft)	94			94						
Detector 2 Size(ft)	6			6						
Detector 2 Type	Cl+Ex			Cl+Ex						
Detector 2 Channel										
Detector 2 Extend (s)	0.0			0.0						
Turn Type	NA		D.P+P	NA	Prot	pm+ov				
Protected Phases	8		5	5 8	7	5	1	2	3	4
Permitted Phases			8			7				
Detector Phase	8		5	5 8	7	5				
Switch Phase										
Minimum Initial (s)	34.0		4.0		4.0	4.0	24.0	34.0	4.0	4.0
Minimum Split (s)	40.0		10.0		22.0	10.0	30.0	40.0	10.0	10.0

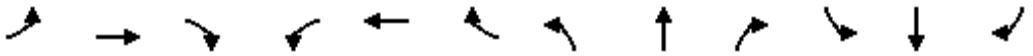


Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Total Split (s)	40.0		36.0		44.0	36.0	58.0	80.0	22.0	40.0
Total Split (%)	33.3%		30.0%		36.7%	30.0%	48%	67%	18%	33%
Maximum Green (s)	34.0		30.0		38.0	30.0	52.0	74.0	16.0	35.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0		2.0	2.0	2.0	2.0	2.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0				
Total Lost Time (s)	6.0		6.0		6.0	6.0				
Lead/Lag			Lead		Lag	Lead	Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	Yes				
Vehicle Extension (s)	4.3		2.5		3.0	2.5	4.3	4.3	2.0	2.5
Minimum Gap (s)	2.2		0.2		3.0	0.2	2.2	2.2	0.2	0.2
Time Before Reduce (s)	30.0		0.0		0.0	0.0	20.0	30.0	0.0	0.0
Time To Reduce (s)	15.0		0.0		0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	Min		None		None	None	C-Min	C-Min	None	None
Walk Time (s)					5.0					
Flash Dont Walk (s)					11.0					
Pedestrian Calls (#/hr)					0					
Act Effct Green (s)	34.3		53.5	59.5	48.5	73.7				
Actuated g/C Ratio	0.29		0.45	0.50	0.40	0.61				
v/c Ratio	0.46		0.80	0.40	0.34	0.22				
Control Delay	29.7		52.5	27.0	35.8	10.2				
Queue Delay	0.0		0.3	0.8	0.0	0.0				
Total Delay	29.7		52.8	27.8	35.8	10.2				
LOS	C		D	C	D	B				
Approach Delay	29.7			40.6	23.4					
Approach LOS	C			D	C					
Queue Length 50th (ft)	127		208	194	96	51				
Queue Length 95th (ft)	176		333	322	164	100				
Internal Link Dist (ft)	717			272	970					
Turn Bay Length (ft)										
Base Capacity (vph)	1022		641	1092	720	1059				
Starvation Cap Reductn	0		39	443	0	0				
Spillback Cap Reductn	0		0	0	0	0				
Storage Cap Reductn	0		0	0	0	0				
Reduced v/c Ratio	0.46		0.64	0.56	0.33	0.22				

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 86 (72%), Referenced to phase 1:NBT and 2:SBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 32.8		Intersection LOS: C	
Intersection Capacity Utilization 75.2%		ICU Level of Service D	
Analysis Period (min) 15			

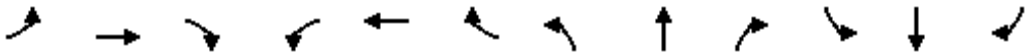
Splits and Phases: 17: Mall Drive 3 & Mall Ring Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	1195	74	295	1533	30	0	0	487	24	7	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		200	300		100	0		0	65		0
Storage Lanes	1		1	2		1	0		2	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.890	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1658	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1658	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82			32			436		19	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1065			834			318			371	
Travel Time (s)		16.1			12.6			7.2			8.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	34	1258	78	311	1614	32	0	0	513	25	7	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	1258	78	311	1614	32	0	0	513	25	26	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1			1	1	1	
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45			45	45	45	
Trailing Detector (ft)	-6	284	-6	-6	284	-6			-6	-6	-6	
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			-6	-6	-6	
Detector 1 Size(ft)	51	51	51	51	51	51			51	51	51	
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA	Perm	Prot	NA	custom			Over	Perm	NA	
Protected Phases	1	7		5	4	2			5		2	
Permitted Phases			7			4				2		
Detector Phase	1	7	7	5	4	2			5	2	2	

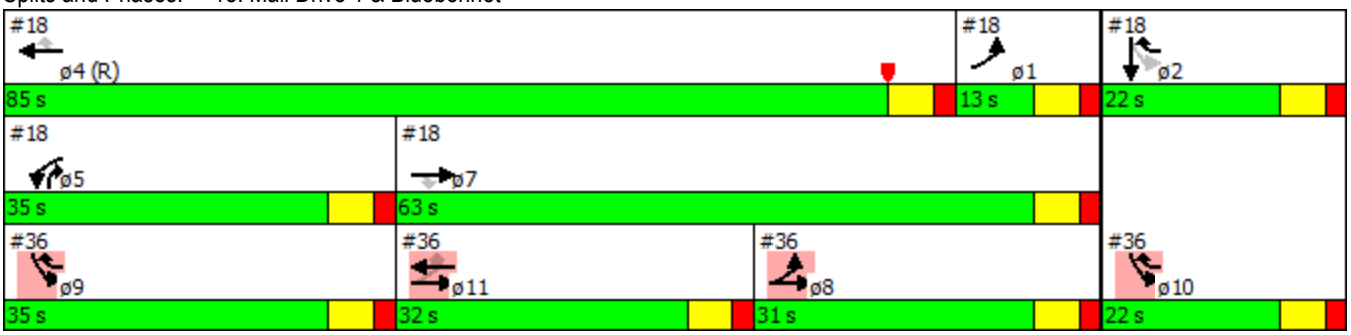
Lane Group	ø8	ø9	ø10	ø11
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	8	9	10	11
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	14.0	4.0	14.0	4.0			4.0	4.0	4.0	
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	10.0			10.0	10.0	10.0	
Total Split (s)	13.0	63.0	63.0	35.0	85.0	22.0			35.0	22.0	22.0	
Total Split (%)	10.8%	52.5%	52.5%	29.2%	70.8%	18.3%			29.2%	18.3%	18.3%	
Maximum Green (s)	7.0	57.0	57.0	29.0	79.0	16.0			29.0	16.0	16.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0			6.0	6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	4.3	4.3	2.5	4.3	2.0			2.5	2.0	2.0	
Minimum Gap (s)	0.2	2.2	2.2	0.2	2.2	0.2			0.2	0.2	0.2	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	34.0	0.0			0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	15.0	0.0			0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Min	None			None	None	None	
Act Effct Green (s)	26.9	70.4	70.4	17.0	65.1	88.1			17.0	14.7	14.7	
Actuated g/C Ratio	0.22	0.59	0.59	0.14	0.54	0.73			0.14	0.12	0.12	
v/c Ratio	0.09	0.42	0.08	0.64	0.59	0.03			0.67	0.12	0.12	
Control Delay	22.4	8.7	1.0	49.8	13.3	0.0			21.2	46.0	23.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Delay	22.4	8.7	1.0	49.8	13.3	0.0			21.2	46.0	23.6	
LOS	C	A	A	D	B	A			C	D	C	
Approach Delay		8.6			18.9						34.6	
Approach LOS		A			B						C	
Queue Length 50th (ft)	7	90	0	104	311	0			61	17	5	
Queue Length 95th (ft)	m16	133	m2	142	436	m0			107	43	31	
Internal Link Dist (ft)		985			754			238			291	
Turn Bay Length (ft)	140		200	300		100				65		
Base Capacity (vph)	405	2982	962	829	3658	1152			1004	251	251	
Starvation Cap Reductn	0	0	0	0	0	0			21	0	0	
Spillback Cap Reductn	0	0	0	0	0	0			0	0	0	
Storage Cap Reductn	0	0	0	0	0	0			0	0	0	
Reduced v/c Ratio	0.08	0.42	0.08	0.38	0.44	0.03			0.52	0.10	0.10	

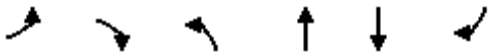
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 91 (76%), Referenced to phase 4:WBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 15.8		Intersection LOS: B	
Intersection Capacity Utilization 58.5%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 18: Mall Drive 1 & Bluebonnet



Lane Group	ø8	ø9	ø10	ø11
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	14.0
Minimum Split (s)	22.0	10.0	22.0	20.0
Total Split (s)	31.0	35.0	22.0	32.0
Total Split (%)	26%	29%	18%	27%
Maximum Green (s)	25.0	29.0	16.0	26.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	4.3
Minimum Gap (s)	3.0	3.0	3.0	2.2
Time Before Reduce (s)	0.0	0.0	0.0	34.0
Time To Reduce (s)	0.0	0.0	0.0	15.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Lane Configurations												
Volume (vph)	298	193	261	252	239	115						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Frt		0.850				0.850						
Flt Protected	0.950		0.950									
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583						
Flt Permitted	0.950		0.425									
Satd. Flow (perm)	1770	1583	792	1863	1863	1583						
Right Turn on Red		Yes				Yes						
Satd. Flow (RTOR)		210				125						
Link Speed (mph)	30			30	30							
Link Distance (ft)	403			1050	819							
Travel Time (s)	9.2			23.9	18.6							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	324	210	284	274	260	125						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	324	210	284	274	260	125						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Right	Left	Left	Left	Right						
Median Width(ft)	36			12	0							
Link Offset(ft)	0			0	0							
Crosswalk Width(ft)	16			16	16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15	9	15			9						
Number of Detectors	1	1	1	2	2	1						
Detector Template	Left	Right	Left	Thru	Thru	Right						
Leading Detector (ft)	20	20	20	100	100	20						
Trailing Detector (ft)	0	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0	0						
Detector 1 Size(ft)	20	20	20	6	6	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)				94	94							
Detector 2 Size(ft)				6	6							
Detector 2 Type				Cl+Ex	Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)				0.0	0.0							
Turn Type	Prot	Free	D.P+P	NA	NA	pm+ov						
Protected Phases	12 13		11	11 14	14	12 13	1	2	3	5	6	8
Permitted Phases		Free	14			14						
Detector Phase	12 13		11	11 14	14	12 13						
Switch Phase												
Minimum Initial (s)			4.0		3.0		3.0	3.0	3.0	21.0	3.0	3.0
Minimum Split (s)			10.0		9.0		11.0	9.0	9.0	27.0	11.0	9.0

Lane Group	ø9	ø10	ø12	ø13
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	9	10	12	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	21.0	4.0	4.0
Minimum Split (s)	9.0	27.0	22.0	10.0

Lanes, Volumes, Timings
19: Mall Ring Road & Mall Drive 2

2017 No Build Weekend

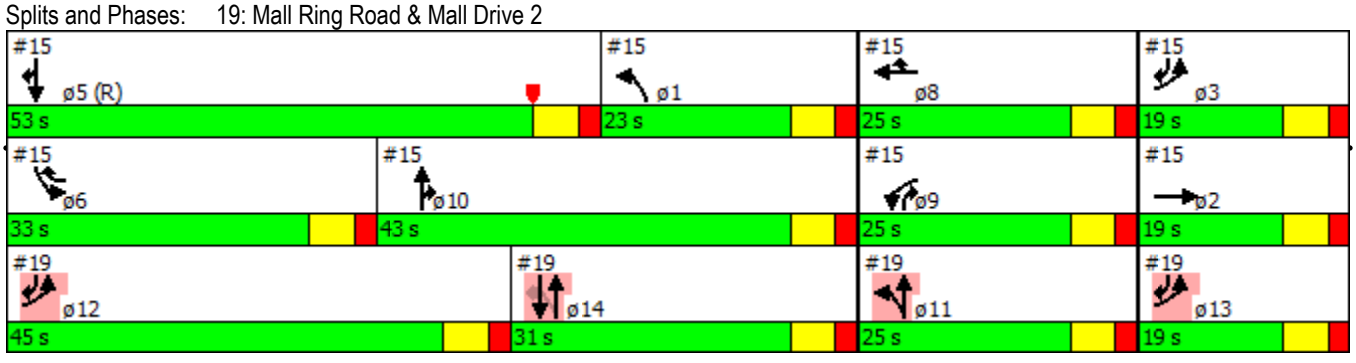
4/19/2016

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Total Split (s)			25.0		31.0		23.0	19.0	19.0	53.0	33.0	25.0
Total Split (%)			20.8%		25.8%		19%	16%	16%	44%	28%	21%
Maximum Green (s)			19.0		25.0		17.0	13.0	13.0	47.0	27.0	19.0
Yellow Time (s)			4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)			2.0		2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0		0.0							
Total Lost Time (s)			6.0		6.0							
Lead/Lag					Lag		Lag			Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0		1.0		3.0	1.0	1.5	4.3	1.0	1.0
Minimum Gap (s)			3.0		0.2		0.2	0.2	0.2	2.2	0.2	0.2
Time Before Reduce (s)			0.0		0.0		0.0	0.0	0.0	28.0	0.0	0.0
Time To Reduce (s)			0.0		0.0		0.0	0.0	0.0	15.0	0.0	0.0
Recall Mode			None		None		None	None	None	C-Min	None	None
Act Effct Green (s)	58.6	120.0	43.4	49.4	31.1	95.7						
Actuated g/C Ratio	0.49	1.00	0.36	0.41	0.26	0.80						
v/c Ratio	0.38	0.13	0.73	0.36	0.54	0.10						
Control Delay	24.6	0.2	65.9	43.3	24.5	0.1						
Queue Delay	0.2	0.0	0.0	0.0	0.0	0.0						
Total Delay	24.7	0.2	65.9	43.3	24.5	0.1						
LOS	C	A	E	D	C	A						
Approach Delay	15.1			54.8	16.6							
Approach LOS	B			D	B							
Queue Length 50th (ft)	128	0	233	224	130	0						
Queue Length 95th (ft)	143	0	304	308	286	0						
Internal Link Dist (ft)	323			970	739							
Turn Bay Length (ft)												
Base Capacity (vph)	976	1583	489	870	497	1276						
Starvation Cap Reductn	170	0	0	0	0	0						
Spillback Cap Reductn	0	0	0	0	0	0						
Storage Cap Reductn	0	0	0	0	0	0						
Reduced v/c Ratio	0.40	0.13	0.58	0.31	0.52	0.10						

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 69 (58%), Referenced to phase 5:SBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 30.5 Intersection LOS: C
Intersection Capacity Utilization 58.5% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 19: Mall Ring Road & Mall Drive 2



Lane Group	ø9	ø10	ø12	ø13
Total Split (s)	25.0	43.0	45.0	19.0
Total Split (%)	21%	36%	38%	16%
Maximum Green (s)	19.0	37.0	39.0	13.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?			Yes	
Vehicle Extension (s)	1.0	4.3	3.0	3.0
Minimum Gap (s)	0.2	0.2	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	98	33	568	0	0	0	0	1546	161	240	1290	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		0	0		0	400		0	300		0
Storage Lanes	1		1	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950	0.976								0.950		
Satd. Flow (prot)	1681	1727	1583	0	0	0	0	6408	1583	1770	3539	0
Flt Permitted	0.950	0.976								0.950		
Satd. Flow (perm)	1681	1727	1583	0	0	0	0	6408	1583	1770	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			468						169			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1072			1024			834			410	
Travel Time (s)		24.4			23.3			12.6			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	103	35	598	0	0	0	0	1627	169	253	1358	0
Shared Lane Traffic (%)	34%											
Lane Group Flow (vph)	68	70	598	0	0	0	0	1627	169	253	1358	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			25	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					2	1	1	2	
Detector Template												
Leading Detector (ft)	45	45	45					290	45	45	290	
Trailing Detector (ft)	-6	-6	-6					284	-6	-6	284	
Detector 1 Position(ft)	-6	-6	-6					-6	-6	-6	-6	
Detector 1 Size(ft)	51	51	51					51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA	Free					NA	Perm	Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2			
Detector Phase	4	4						2	2	1	6	

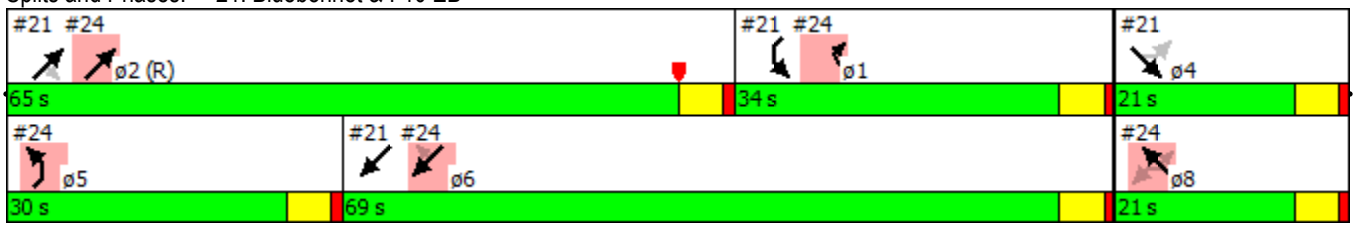
Lane Group	ø5	ø8
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	5	8
Permitted Phases		
Detector Phase		

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)	3.0	3.0						10.0	10.0	3.0	10.0	
Minimum Split (s)	20.0	20.0						20.0	20.0	8.0	20.0	
Total Split (s)	21.0	21.0						65.0	65.0	34.0	69.0	
Total Split (%)	17.5%	17.5%						54.2%	54.2%	28.3%	57.5%	
Maximum Green (s)	16.0	16.0						60.0	60.0	29.0	64.0	
Yellow Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0	2.0	2.0	6.0	
Recall Mode	None	None						C-Max	C-Max	None	Max	
Act Effct Green (s)	9.8	9.8	120.0					66.2	66.2	29.0	64.0	
Actuated g/C Ratio	0.08	0.08	1.00					0.55	0.55	0.24	0.53	
v/c Ratio	0.50	0.50	0.38					0.46	0.18	0.59	0.72	
Control Delay	64.2	64.0	0.7					10.1	2.1	25.5	7.1	
Queue Delay	0.0	0.0	0.0					0.0	0.0	0.4	0.5	
Total Delay	64.2	64.0	0.7					10.1	2.1	25.9	7.6	
LOS	E	E	A					B	A	C	A	
Approach Delay		12.6						9.3			10.5	
Approach LOS		B						A			B	
Queue Length 50th (ft)	53	55	0					131	4	157	54	
Queue Length 95th (ft)	101	104	0					181	24	m196	80	
Internal Link Dist (ft)		992			944			754			330	
Turn Bay Length (ft)	375									300		
Base Capacity (vph)	224	230	1583					3536	949	427	1887	
Starvation Cap Reductn	0	0	0					0	0	25	172	
Spillback Cap Reductn	0	0	0					0	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.30	0.30	0.38					0.46	0.18	0.63	0.79	

Intersection Summary

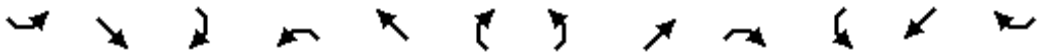
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 9 (8%), Referenced to phase 2:NET, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 10.4 Intersection LOS: B
Intersection Capacity Utilization 69.7% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: Bluebonnet & I-10 EB



Lane Group	ø5	ø8
Switch Phase		
Minimum Initial (s)	3.0	3.0
Minimum Split (s)	8.0	20.0
Total Split (s)	30.0	21.0
Total Split (%)	25%	18%
Maximum Green (s)	25.0	16.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?		
Vehicle Extension (s)	3.5	2.0
Recall Mode	Max	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	0	0	136	3	279	521	1123	0	0	1394	169
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		525	300		0	0		575
Storage Lanes	0		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt						0.850						0.850
Flt Protected				0.950	0.954		0.950					
Satd. Flow (prot)	0	0	0	1681	1688	1583	3433	3539	0	0	3539	1583
Flt Permitted				0.950	0.954		0.950					
Satd. Flow (perm)	0	0	0	1681	1688	1583	3433	3539	0	0	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						64						178
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		894			1008			410			866	
Travel Time (s)		20.3			22.9			6.2			13.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	143	3	294	548	1182	0	0	1467	178
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	0	0	73	73	294	548	1182	0	0	1467	178
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			40			50	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			2	1
Detector Template												
Leading Detector (ft)				45	45	45	45	290			290	45
Trailing Detector (ft)				-6	-6	-6	-6	284			284	-6
Detector 1 Position(ft)				-6	-6	-6	-6	-6			-6	-6
Detector 1 Size(ft)				51	51	51	51	51			51	51
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call			Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type				Perm	NA	custom	Prot	NA			NA	Perm
Protected Phases					8	1	5	2			6	
Permitted Phases				8		8						6
Detector Phase				8	8	1	5	2			6	6

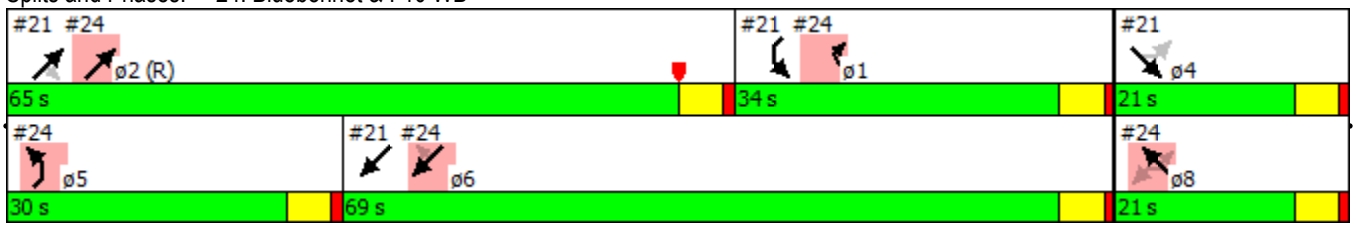
Lane Group	ø4
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)				3.0	3.0	3.0	3.0	10.0			10.0	10.0
Minimum Split (s)				20.0	20.0	8.0	8.0	20.0			20.0	20.0
Total Split (s)				21.0	21.0	34.0	30.0	65.0			69.0	69.0
Total Split (%)				17.5%	17.5%	28.3%	25.0%	54.2%			57.5%	57.5%
Maximum Green (s)				16.0	16.0	29.0	25.0	60.0			64.0	64.0
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
All-Red Time (s)				1.0	1.0	1.0	1.0	1.0			1.0	1.0
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)				5.0	5.0	5.0	5.0	5.0			5.0	5.0
Lead/Lag						Lag	Lead	Lead			Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0	2.0	3.5	2.0			6.0	6.0
Recall Mode				None	None	None	Max	C-Max			Max	Max
Act Effct Green (s)				9.8	9.8	43.8	31.2	66.2			64.0	64.0
Actuated g/C Ratio				0.08	0.08	0.36	0.26	0.55			0.53	0.53
v/c Ratio				0.53	0.53	0.48	0.61	0.61			0.78	0.19
Control Delay				66.2	66.2	24.8	26.0	4.3			20.7	2.0
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Total Delay				66.2	66.2	24.8	26.0	4.3			20.7	2.0
LOS				E	E	C	C	A			C	A
Approach Delay					38.6			11.1			18.7	
Approach LOS					D			B			B	
Queue Length 50th (ft)				57	57	134	69	44			636	36
Queue Length 95th (ft)				107	107	205	132	64			372	1
Internal Link Dist (ft)		814			928			330			786	
Turn Bay Length (ft)						525	300					575
Base Capacity (vph)				224	225	618	893	1953			1887	927
Starvation Cap Reductn				0	0	0	0	0			0	0
Spillback Cap Reductn				0	0	0	0	0			0	0
Storage Cap Reductn				0	0	0	0	0			0	0
Reduced v/c Ratio				0.33	0.32	0.48	0.61	0.61			0.78	0.19

Intersection Summary

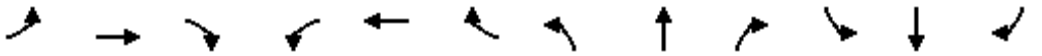
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 9 (8%), Referenced to phase 2:NET, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 17.6 Intersection LOS: B
Intersection Capacity Utilization 69.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 24: Bluebonnet & I-10 WB



Lane Group	ø4
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	20.0
Total Split (s)	21.0
Total Split (%)	18%
Maximum Green (s)	16.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	1	27	122	4	7	30	1283	89	10	1416	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		200	300		175	175		175
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.855			0.950	0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3026	0	3433	1681	1504	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.117			0.149		
Satd. Flow (perm)	1770	3026	0	3433	1681	1504	218	3539	1583	278	3539	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		111										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		475			1072			866			1049	
Travel Time (s)		10.8			24.4			13.1			15.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	39	1	28	128	4	7	32	1351	94	11	1491	8
Shared Lane Traffic (%)						26%						
Lane Group Flow (vph)	39	29	0	128	6	5	32	1351	94	11	1491	8
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		60			60			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4		3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases							2			6		
Detector Phase	7	4		3	8	8 1	5	2	2 3	1	6	6 7

Lanes, Volumes, Timings
27: Bluebonnet & Blue Cross

2017 No Build Weekend

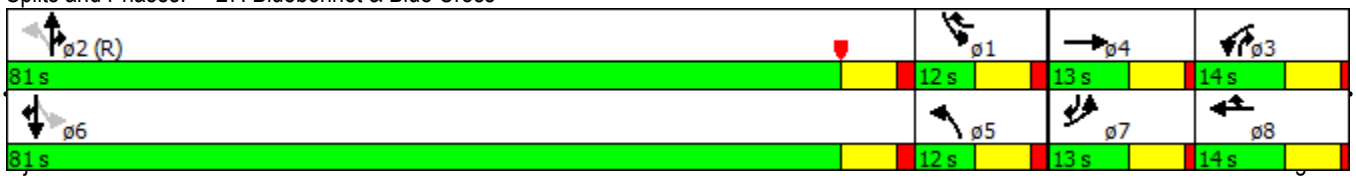
4/19/2016

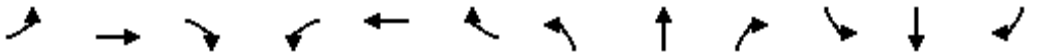
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	5.0		5.0	3.0		3.0	20.0		5.0	20.0	
Minimum Split (s)	8.9	10.9		10.9	8.9		9.6	26.6		11.6	26.6	
Total Split (s)	13.0	13.0		14.0	14.0		12.0	81.0		12.0	81.0	
Total Split (%)	10.8%	10.8%		11.7%	11.7%		10.0%	67.5%		10.0%	67.5%	
Maximum Green (s)	7.1	7.1		8.1	8.1		5.4	74.4		5.4	74.4	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	0.9	0.9		0.9	0.9		1.6	1.6		1.6	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.9	5.9		5.9	5.9		6.6	6.6		6.6	6.6	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		2.5	1.5		1.5	5.0		1.5	5.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	9.2	5.0		9.3	7.1	12.3	90.1	86.7	104.5	89.4	85.1	97.6
Actuated g/C Ratio	0.08	0.04		0.08	0.06	0.10	0.75	0.72	0.87	0.74	0.71	0.81
v/c Ratio	0.29	0.12		0.48	0.06	0.03	0.15	0.53	0.07	0.04	0.59	0.01
Control Delay	57.4	1.1		59.0	54.5	32.6	3.5	4.8	1.7	7.3	11.3	1.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.4	1.1		59.0	54.5	32.6	3.5	4.8	1.7	7.3	11.3	1.4
LOS	E	A		E	D	C	A	A	A	A	B	A
Approach Delay		33.4			57.8			4.6			11.2	
Approach LOS		C			E			A			B	
Queue Length 50th (ft)	26	0		50	5	3	4	90	7	3	396	1
Queue Length 95th (ft)	67	0		80	20	13	m3	128	m14	m5	532	m1
Internal Link Dist (ft)		395			992			786			969	
Turn Bay Length (ft)	75			200		200	300		175	175		175
Base Capacity (vph)	149	283		272	114	167	235	2569	1370	277	2509	1298
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.10		0.47	0.05	0.03	0.14	0.53	0.07	0.04	0.59	0.01

Intersection Summary

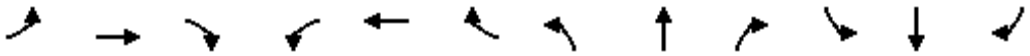
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 35 (29%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.59
Intersection Signal Delay: 10.6 Intersection LOS: B
Intersection Capacity Utilization 59.7% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 27: Bluebonnet & Blue Cross





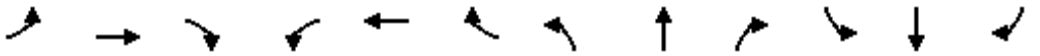
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	0	21	16	0	2	13	1310	4	0	1396	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		130	150		185
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.901			0.986				0.850			0.850
Flt Protected		0.987			0.957		0.950					
Satd. Flow (prot)	0	1657	0	0	1758	0	1770	3539	1583	1863	3539	1583
Flt Permitted		0.903			0.947		0.169					
Satd. Flow (perm)	0	1516	0	0	1739	0	315	3539	1583	1863	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			27				27			27
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1129			1330			1049			1811	
Travel Time (s)		25.7			30.2			15.9			27.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	8	0	22	17	0	2	14	1379	4	0	1469	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	30	0	0	19	0	14	1379	4	0	1469	4
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



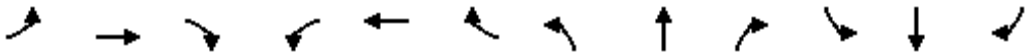
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	11.0	11.0		11.0	11.0		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.0	24.0		24.0	24.0		84.0	84.0	84.0	84.0	84.0	84.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		6.1			6.1		108.8	108.8	108.8		108.8	108.8
Actuated g/C Ratio		0.05			0.05		0.91	0.91	0.91		0.91	0.91
v/c Ratio		0.29			0.17		0.05	0.43	0.00		0.46	0.00
Control Delay		28.6			17.0		0.5	0.5	0.0		2.6	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0		0.0	0.0
Total Delay		28.6			17.0		0.5	0.5	0.0		2.6	0.0
LOS		C			B		A	A	A		A	A
Approach Delay		28.6			17.0			0.5			2.6	
Approach LOS		C			B			A			A	
Queue Length 50th (ft)		2			0		0	15	0		104	0
Queue Length 95th (ft)		33			19		m0	11	m0		207	m0
Internal Link Dist (ft)		1049			1250			969			1731	
Turn Bay Length (ft)							150		130			185
Base Capacity (vph)		324			369		285	3207	1437		3207	1437
Starvation Cap Reductn		0			0		0	0	0		0	0
Spillback Cap Reductn		0			0		0	0	0		0	0
Storage Cap Reductn		0			0		0	0	0		0	0
Reduced v/c Ratio		0.09			0.05		0.05	0.43	0.00		0.46	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 81 (68%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.46			
Intersection Signal Delay: 1.9		Intersection LOS: A	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 30: Bluebonnet & Gail



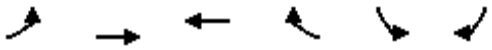
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	1	22	14	0	14	23	1268	29	19	1364	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.896			0.932				0.850			0.850
Flt Protected		0.990			0.976		0.950			0.950		
Satd. Flow (prot)	0	1652	0	0	1694	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.922			0.826		0.175			0.196		
Satd. Flow (perm)	0	1539	0	0	1434	0	326	3539	1583	365	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			27				31			29
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1794			2049			1811			2409	
Travel Time (s)		40.8			46.6			27.4			36.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	6	1	23	15	0	15	24	1335	31	20	1436	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	30	0	0	30	0	24	1335	31	20	1436	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	9.2	9.2		9.2	9.2		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	23.8	23.8		23.8	23.8		84.0	84.0	84.0	84.0	84.0	84.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.2	1.2		1.2	1.2		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.2			6.2		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		6.3			6.3		108.5	108.5	108.5	108.5	108.5	108.5
Actuated g/C Ratio		0.05			0.05		0.90	0.90	0.90	0.90	0.90	0.90
v/c Ratio		0.29			0.30		0.08	0.42	0.02	0.06	0.45	0.01
Control Delay		32.6			28.9		0.6	0.7	0.1	2.1	2.3	0.1
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		32.6			28.9		0.6	0.7	0.1	2.1	2.3	0.1
LOS		C			C		A	A	A	A	A	A
Approach Delay		32.6			28.9			0.7			2.3	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		5			2		0	2	0	2	105	0
Queue Length 95th (ft)		36			33		m0	1	m0	6	156	1
Internal Link Dist (ft)		1714			1969			1731			2329	
Turn Bay Length (ft)							150		150	150		150
Base Capacity (vph)		323			306		294	3198	1433	330	3198	1433
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.09			0.10		0.08	0.42	0.02	0.06	0.45	0.01

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 18 (15%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.45			
Intersection Signal Delay: 2.1		Intersection LOS: A	
Intersection Capacity Utilization 68.5%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 33: Bluebonnet & Oliphant



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Lane Configurations												
Volume (vph)	174	377	204	314	227	150						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.95						
Frt				0.850	0.940							
Flt Protected	0.950				0.971							
Satd. Flow (prot)	1770	1863	1863	1583	3298	0						
Flt Permitted	0.419				0.971							
Satd. Flow (perm)	780	1863	1863	1583	3298	0						
Right Turn on Red				Yes		Yes						
Satd. Flow (RTOR)				341	163							
Link Speed (mph)		30	30		30							
Link Distance (ft)		819	802		318							
Travel Time (s)		18.6	18.2		7.2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	189	410	222	341	247	163						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	189	410	222	341	410	0						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Right	Left	Right						
Median Width(ft)		12	0		36							
Link Offset(ft)		0	0		0							
Crosswalk Width(ft)		16	16		16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15			9	15	9						
Number of Detectors	1	2	2	1	1							
Detector Template	Left	Thru	Thru	Right	Left							
Leading Detector (ft)	20	100	100	20	20							
Trailing Detector (ft)	0	0	0	0	0							
Detector 1 Position(ft)	0	0	0	0	0							
Detector 1 Size(ft)	20	6	6	20	20							
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex							
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0							
Detector 2 Position(ft)		94	94									
Detector 2 Size(ft)		6	6									
Detector 2 Type		Cl+Ex	Cl+Ex									
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0									
Turn Type	D.P+P	NA	NA	pm+ov	Prot							
Protected Phases	8	8 11	11	9 10	9 10		1	2	4	5	7	9
Permitted Phases	11			11								
Detector Phase	8	8 11	11	9 10	9 10							
Switch Phase												
Minimum Initial (s)	4.0		14.0				4.0	4.0	14.0	4.0	14.0	4.0
Minimum Split (s)	22.0		20.0				10.0	10.0	20.0	10.0	20.0	10.0

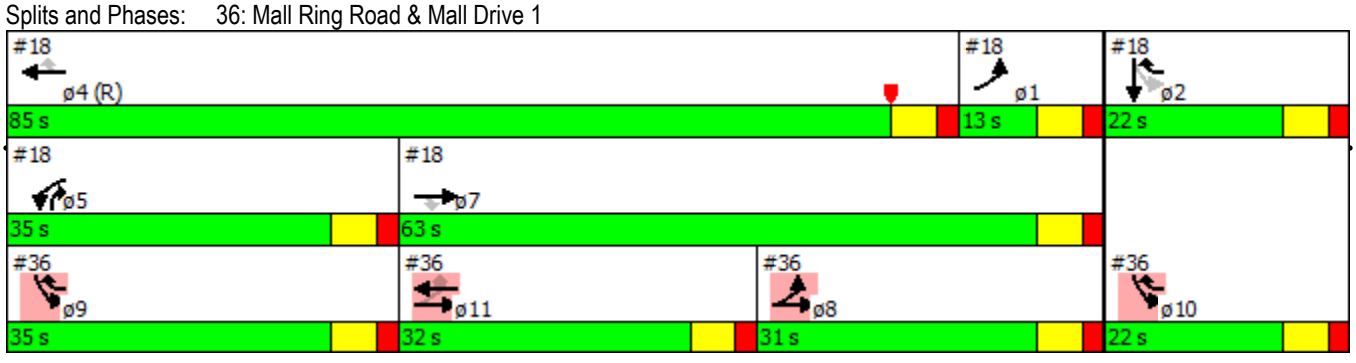
Lane Group	ø10
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	10
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	22.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Total Split (s)	31.0		32.0				13.0	22.0	85.0	35.0	63.0	35.0
Total Split (%)	25.8%		26.7%				11%	18%	71%	29%	53%	29%
Maximum Green (s)	25.0		26.0				7.0	16.0	79.0	29.0	57.0	29.0
Yellow Time (s)	4.0		4.0				4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0				2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0									
Total Lost Time (s)	6.0		6.0									
Lead/Lag			Lag				Lag		Lead	Lead	Lag	Lead
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0		4.3				2.5	2.0	4.3	2.5	4.3	3.0
Minimum Gap (s)	3.0		2.2				0.2	0.2	2.2	0.2	2.2	3.0
Time Before Reduce (s)	0.0		34.0				0.0	0.0	34.0	0.0	0.0	0.0
Time To Reduce (s)	0.0		15.0				0.0	0.0	15.0	0.0	0.0	0.0
Recall Mode	None		None				None	None	C-Min	None	None	None
Act Effct Green (s)	74.6	80.6	23.4	56.8	27.4							
Actuated g/C Ratio	0.62	0.67	0.20	0.47	0.23							
v/c Ratio	0.21	0.33	0.61	0.37	0.47							
Control Delay	6.1	6.1	50.6	2.4	60.8							
Queue Delay	0.0	0.0	0.0	0.0	0.1							
Total Delay	6.1	6.1	50.6	2.4	60.9							
LOS	A	A	D	A	E							
Approach Delay		6.1	21.4		60.9							
Approach LOS		A	C		E							
Queue Length 50th (ft)	47	102	159	0	126							
Queue Length 95th (ft)	26	83	220	36	157							
Internal Link Dist (ft)		739	722		238							
Turn Bay Length (ft)												
Base Capacity (vph)	907	1240	424	918	1422							
Starvation Cap Reductn	0	0	0	0	278							
Spillback Cap Reductn	0	0	0	0	0							
Storage Cap Reductn	0	0	0	0	0							
Reduced v/c Ratio	0.21	0.33	0.52	0.37	0.36							

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 91 (76%), Referenced to phase 4:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 25.9 Intersection LOS: C
Intersection Capacity Utilization 47.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 36: Mall Ring Road & Mall Drive 1

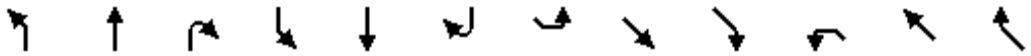


Lane Group	ø10
Total Split (s)	22.0
Total Split (%)	18%
Maximum Green (s)	16.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Minimum Gap (s)	3.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

M.15 2017 PHASE 1 AM – ESSEN LANE

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	279	702	41	232	513	430	536	499	34	75	972	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	800		0	300		0	150		0
Storage Lanes	1		0	1		1	2		0	1		0
Taper Length (ft)	150			25			200			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Frt		0.992				0.850		0.990			0.969	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3511	0	1770	3539	1583	3433	3504	0	1770	3429	0
Flt Permitted	0.198			0.112			0.950			0.950		
Satd. Flow (perm)	369	3511	0	209	3539	1583	3433	3504	0	1770	3429	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3				404		4			19	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1877			1475			2128			1788	
Travel Time (s)		28.4			22.3			32.2			27.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	303	763	45	252	558	467	583	542	37	82	1057	277
Shared Lane Traffic (%)												
Lane Group Flow (vph)	303	808	0	252	558	467	583	579	0	82	1334	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	0	1	1		1	1	
Detector Template												
Leading Detector (ft)	45	162		45	162	0	45	45		45	45	
Trailing Detector (ft)	0	156		0	156	0	0	0		0	0	
Detector 1 Position(ft)	0	-6		0	-6	0	0	0		0	0	
Detector 1 Size(ft)	45	51		45	51	50	45	45		45	45	
Detector 1 Type	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2		2						
Detector Phase	1	6		5	2	2	3	8		7	4	



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	5.0	10.0		3.0	10.0	
Minimum Split (s)	8.8	15.8		8.8	15.8	15.8	11.5	16.5		9.5	16.5	
Total Split (s)	30.8	40.8		30.8	45.8	45.8	41.5	66.5		21.5	56.5	
Total Split (%)	17.6%	23.4%		17.6%	26.2%	26.2%	23.8%	38.1%		12.3%	32.4%	
Maximum Green (s)	25.0	35.0		25.0	40.0	40.0	35.0	60.0		15.0	50.0	
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8	5.5	5.5		5.5	5.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8		5.8	5.8	5.8	6.5	6.5		6.5	6.5	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	6.0		2.0	6.0	6.0	2.0	6.0		2.0	6.0	
Minimum Gap (s)	0.2	4.0		0.2	4.0	4.0	0.2	4.0		0.2	4.0	
Time Before Reduce (s)	0.0	20.0		0.0	20.0	20.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	
Act Effct Green (s)	60.1	36.6		58.4	35.7	35.7	31.1	37.3		44.0	50.2	
Actuated g/C Ratio	0.36	0.22		0.35	0.22	0.22	0.19	0.23		0.27	0.30	
v/c Ratio	0.91	1.04		0.88	0.73	0.71	0.90	0.73		0.17	1.27	
Control Delay	70.0	103.0		76.3	67.1	16.0	83.9	64.6		51.2	172.3	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	70.0	103.0		76.3	67.1	16.0	83.9	64.6		51.2	172.3	
LOS	E	F		E	E	B	F	E		D	F	
Approach Delay		94.0			50.2			74.3			165.3	
Approach LOS		F			D			E			F	
Queue Length 50th (ft)	243	~526		219	306	58	323	312		69	~972	
Queue Length 95th (ft)	#423	#642		#377	382	197	410	374		133	#1180	
Internal Link Dist (ft)		1797			1395			2048			1708	
Turn Bay Length (ft)	250			800			300			150		
Base Capacity (vph)	349	855		313	859	690	729	1279		471	1054	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.87	0.95		0.81	0.65	0.68	0.80	0.45		0.17	1.27	

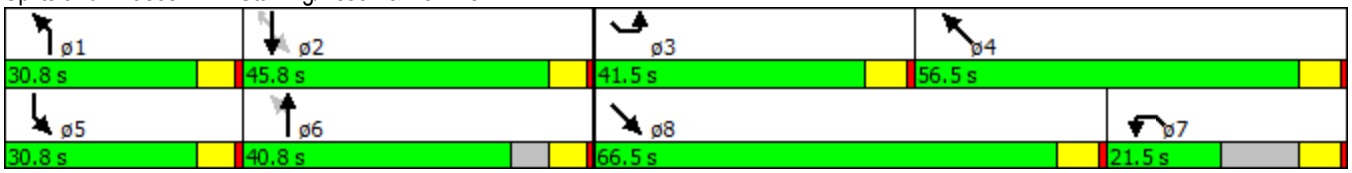
Intersection Summary			
Area Type:	Other		
Cycle Length: 174.6			
Actuated Cycle Length: 165.2			
Natural Cycle: 140			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.27			
Intersection Signal Delay: 98.4		Intersection LOS: F	
Intersection Capacity Utilization 104.4%		ICU Level of Service G	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

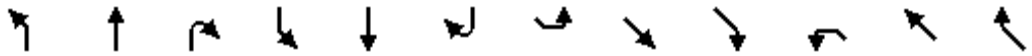
Queue shown is maximum after two cycles.

Splits and Phases: 2: Starring/Essen & Perkins



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	0	1323	255	125	1521	0	52	0	1483	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		0	0		800	0		0
Storage Lanes	1		0	2		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.86	0.86	0.97	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt		0.976							0.850			
Flt Protected				0.950			0.950	0.950				
Satd. Flow (prot)	0	6254	0	3433	3539	0	1681	1681	1583	0	0	0
Flt Permitted				0.950			0.950	0.950				
Satd. Flow (perm)	0	6254	0	3433	3539	0	1681	1681	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		76							245			
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		721			409			1012			1106	
Travel Time (s)		10.9			6.2			23.0			25.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1438	277	136	1653	0	57	0	1612	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	0	1715	0	136	1653	0	28	29	1612	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2		1	1	0			
Detector Template							Left					
Leading Detector (ft)		162		45	162		20	45	0			
Trailing Detector (ft)		156		0	156		0	0	0			
Detector 1 Position(ft)		-6		0	-6		0	0	0			
Detector 1 Size(ft)		51		45	51		20	45	20			
Detector 1 Type		Call		Cl+Ex	Call		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Queue (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Delay (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA		Prot	NA		Perm	NA	Free			
Protected Phases		6		5	5 6			8				
Permitted Phases							8		Free			
Detector Phase		6		5	5 6		8	8				

Lane Group	ø1	ø2	ø4
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	1	2	4
Permitted Phases			
Detector Phase			



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)		10.0		3.0			3.0	3.0				
Minimum Split (s)		16.0		9.0			9.0	9.0				
Total Split (s)		80.0		21.0			19.0	19.0				
Total Split (%)		66.7%		17.5%			15.8%	15.8%				
Maximum Green (s)		74.0		15.0			13.0	13.0				
Yellow Time (s)		5.0		5.0			5.0	5.0				
All-Red Time (s)		1.0		1.0			1.0	1.0				
Lost Time Adjust (s)		0.0		0.0			0.0	0.0				
Total Lost Time (s)		6.0		6.0			6.0	6.0				
Lead/Lag		Lag					Lead	Lead				
Lead-Lag Optimize?		Yes					Yes	Yes				
Vehicle Extension (s)		4.0		2.5			2.0	2.0				
Minimum Gap (s)		2.0		0.2			0.2	0.2				
Time Before Reduce (s)		10.0		0.0			0.0	0.0				
Time To Reduce (s)		20.0		0.0			0.0	0.0				
Recall Mode		None		C-Max			Min	Min				
Act Effct Green (s)		64.2		31.2	101.4		6.6	6.6	120.0			
Actuated g/C Ratio		0.54		0.26	0.84		0.06	0.06	1.00			
v/c Ratio		0.51		0.15	0.55		0.30	0.32	1.02			
Control Delay		11.6		32.1	7.9		62.1	62.6	30.9			
Queue Delay		0.0		0.0	0.8		0.0	0.0	6.6			
Total Delay		11.6		32.1	8.6		62.1	62.6	37.5			
LOS		B		C	A		E	E	D			
Approach Delay		11.6			10.4			38.3				
Approach LOS		B			B			D				
Queue Length 50th (ft)		194		44	221		22	23	~47			
Queue Length 95th (ft)		0		80	323		54	55	#313			
Internal Link Dist (ft)		641			329			932			1026	
Turn Bay Length (ft)									800			
Base Capacity (vph)		3924		892	2959		182	182	1583			
Starvation Cap Reductn		0		0	891		0	0	0			
Spillback Cap Reductn		341		0	68		0	0	30			
Storage Cap Reductn		0		0	0		0	0	0			
Reduced v/c Ratio		0.48		0.15	0.80		0.15	0.16	1.04			

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 22 (18%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.02			
Intersection Signal Delay: 19.8		Intersection LOS: B	
Intersection Capacity Utilization 58.2%		ICU Level of Service B	
Analysis Period (min) 15			

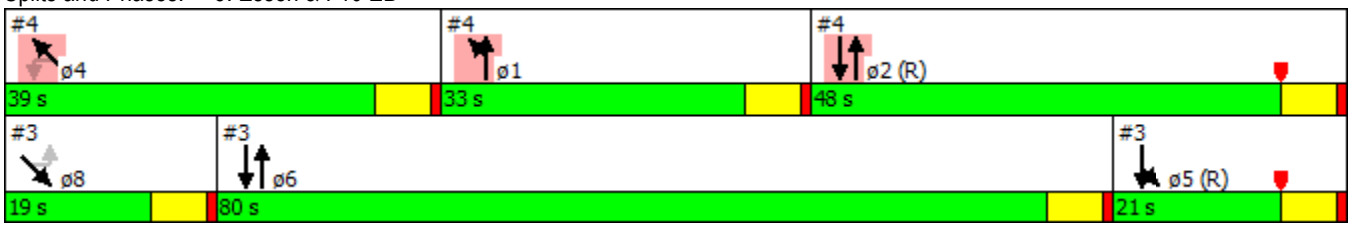
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

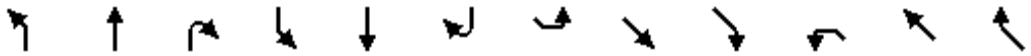
Lane Group	ø1	ø2	ø4
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	33.0	48.0	39.0
Total Split (%)	28%	40%	33%
Maximum Green (s)	27.0	42.0	33.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes
Vehicle Extension (s)	2.5	4.0	4.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	None	C-Max	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Essen & I-10 EB





Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	425	950	0	0	1157	44	0	0	0	489	0	751
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	550		200	0		0	750		0
Storage Lanes	2		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.86	0.86	1.00	1.00	1.00	0.95	0.95	1.00
Frt					0.994							0.850
Flt Protected	0.950									0.950	0.950	
Satd. Flow (prot)	3433	3539	0	0	6369	0	0	0	0	1681	1681	1583
Flt Permitted	0.950									0.950	0.950	
Satd. Flow (perm)	3433	3539	0	0	6369	0	0	0	0	1681	1681	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7							413
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		409			805			936			1390	
Travel Time (s)		6.2			12.2			21.3			31.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	462	1033	0	0	1258	48	0	0	0	532	0	816
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	462	1033	0	0	1306	0	0	0	0	266	266	816
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			20			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2					1	1	0
Detector Template										Left		
Leading Detector (ft)	45	162			162					20	45	0
Trailing Detector (ft)	0	156			156					0	0	0
Detector 1 Position(ft)	0	-6			-6					0	0	0
Detector 1 Size(ft)	45	51			51					20	45	20
Detector 1 Type	Cl+Ex	Call			Call					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA			NA					Perm	NA	Free
Protected Phases	1	1 2			2						4	
Permitted Phases										4		Free
Detector Phase	1	1 2			2					4	4	

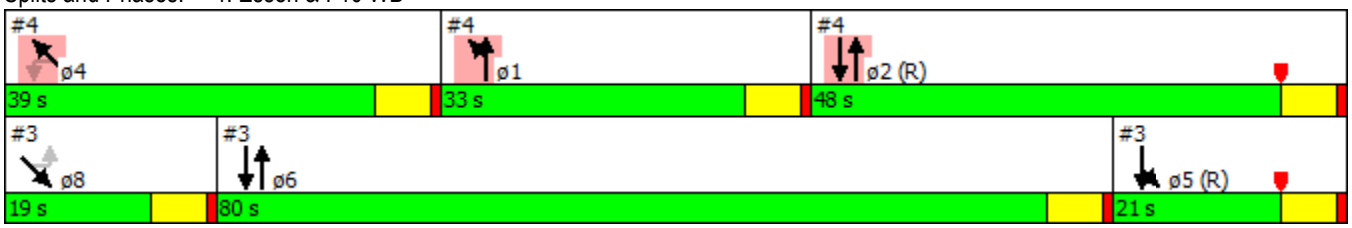
Lane Group	ø5	ø6	ø8
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	5	6	8
Permitted Phases			
Detector Phase			

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0				10.0					3.0	3.0	
Minimum Split (s)	9.0				16.0					9.0	9.0	
Total Split (s)	33.0				48.0					39.0	39.0	
Total Split (%)	27.5%				40.0%					32.5%	32.5%	
Maximum Green (s)	27.0				42.0					33.0	33.0	
Yellow Time (s)	5.0				5.0					5.0	5.0	
All-Red Time (s)	1.0				1.0					1.0	1.0	
Lost Time Adjust (s)	0.0				0.0					0.0	0.0	
Total Lost Time (s)	6.0				6.0					6.0	6.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?	Yes									Yes	Yes	
Vehicle Extension (s)	2.5				4.0					4.0	4.0	
Minimum Gap (s)	0.2				2.0					0.2	0.2	
Time Before Reduce (s)	0.0				10.0					0.0	0.0	
Time To Reduce (s)	0.0				20.0					0.0	0.0	
Recall Mode	None				C-Max					None	None	
Act Effct Green (s)	22.2	82.6			54.5					25.4	25.4	120.0
Actuated g/C Ratio	0.18	0.69			0.45					0.21	0.21	1.00
v/c Ratio	0.73	0.42			0.45					0.75	0.75	0.52
Control Delay	33.3	10.0			23.8					57.1	57.1	1.2
Queue Delay	0.0	0.4			0.0					0.3	0.3	0.0
Total Delay	33.3	10.4			23.8					57.4	57.4	1.2
LOS	C	B			C					E	E	A
Approach Delay		17.5			23.8						23.4	
Approach LOS		B			C						C	
Queue Length 50th (ft)	146	319			199					203	203	0
Queue Length 95th (ft)	167	345			238					283	283	0
Internal Link Dist (ft)		329			725			856			1310	
Turn Bay Length (ft)										750		
Base Capacity (vph)	772	2400			2894					462	462	1583
Starvation Cap Reductn	0	762			0					0	0	0
Spillback Cap Reductn	0	0			0					24	24	0
Storage Cap Reductn	0	0			0					0	0	0
Reduced v/c Ratio	0.60	0.63			0.45					0.61	0.61	0.52

Intersection Summary

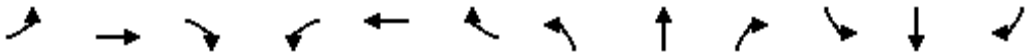
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 22 (18%), Referenced to phase 2:NBSB and 5:, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.02
Intersection Signal Delay: 21.4 Intersection LOS: C
Intersection Capacity Utilization 58.2% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 4: Essen & I-10 WB

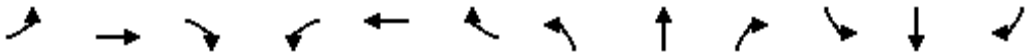


Lane Group	ø5	ø6	ø8
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	21.0	80.0	19.0
Total Split (%)	18%	67%	16%
Maximum Green (s)	15.0	74.0	13.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lead
Lead-Lag Optimize?		Yes	Yes
Vehicle Extension (s)	2.5	4.0	2.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	C-Max	None	Min
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary



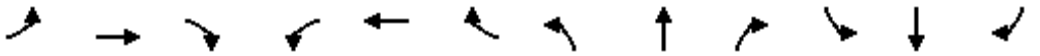
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	0	43	91	0	92	38	1515	75	223	2586	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	300		0	150		200	200		0
Storage Lanes	2		0	2		1	1		1	1		0
Taper Length (ft)	25			25			100			50		
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Frt		0.850				0.850			0.850		0.995	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	1583	0	3433	1863	1583	1770	5085	1583	1770	5060	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1583	0	3433	1863	1583	1770	5085	1583	1770	5060	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		191									9	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1120			896			1106			465	
Travel Time (s)		25.5			20.4			16.8			7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	38	0	47	99	0	100	41	1647	82	242	2811	100
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	47	0	99	0	100	41	1647	82	242	2911	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left		Right			Right			
Leading Detector (ft)	45	45		20	45	20	45	162	20	45	162	
Trailing Detector (ft)	0	0		0	0	0	0	156	0	0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6	0	0	-6	
Detector 1 Size(ft)	45	45		20	45	20	45	51	20	45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot		Free	Prot	NA	pt+ov	Prot	NA	
Protected Phases	3	8		7	4		1	6	6 7	5	2	
Permitted Phases						Free						
Detector Phase	3	8		7	4		1	6	6 7	5	2	



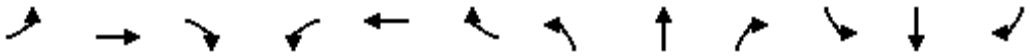
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	5.0		4.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	10.0	11.0		10.0	11.0		11.0	21.0		11.0	21.0	
Total Split (s)	11.0	11.0		14.0	14.0		11.0	63.0		32.0	84.0	
Total Split (%)	9.2%	9.2%		11.7%	11.7%		9.2%	52.5%		26.7%	70.0%	
Maximum Green (s)	5.0	5.0		8.0	8.0		5.0	57.0		26.0	78.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	2.0		3.0	2.0		2.0	2.5		2.0	2.0	
Minimum Gap (s)	3.0	0.2		3.0	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	13.9	5.0		7.8		120.0	4.9	65.1	78.9	20.3	82.6	
Actuated g/C Ratio	0.12	0.04		0.06		1.00	0.04	0.54	0.66	0.17	0.69	
v/c Ratio	0.10	0.19		0.44		0.06	0.57	0.60	0.08	0.81	0.84	
Control Delay	44.8	1.7		60.5		0.1	75.8	14.9	4.9	67.5	11.2	
Queue Delay	0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.3	
Total Delay	44.8	1.7		60.5		0.1	75.8	14.9	4.9	67.5	11.5	
LOS	D	A		E		A	E	B	A	E	B	
Approach Delay		20.9						15.8			15.8	
Approach LOS		C						B			B	
Queue Length 50th (ft)	12	0		38		0	34	167	14	166	620	
Queue Length 95th (ft)	29	0		68		0	m54	162	m16	m241	161	
Internal Link Dist (ft)		1040			816			1026			385	
Turn Bay Length (ft)	200			300			150		200	200		
Base Capacity (vph)	397	249		233		1583	73	2758	1045	383	3492	
Starvation Cap Reductn	0	0		0		0	0	0	0	0	150	
Spillback Cap Reductn	0	0		0		0	0	0	0	0	0	
Storage Cap Reductn	0	0		0		0	0	0	0	0	0	
Reduced v/c Ratio	0.10	0.19		0.42		0.06	0.56	0.60	0.08	0.63	0.87	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 87 (73%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 16.5		Intersection LOS: B	
Intersection Capacity Utilization 79.6%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Essen & Dijon/Dijon Ext



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	5	89	5	42	1	1536	106	174	2807	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	100		0	350		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			150		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.865				0.850		0.990			0.999	
Flt Protected					0.955		0.950			0.950		
Satd. Flow (prot)	0	1611	0	0	1779	1583	1770	5034	0	1770	5080	0
Flt Permitted					0.733		0.950			0.950		
Satd. Flow (perm)	0	1611	0	0	1365	1583	1770	5034	0	1770	5080	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		136						14			2	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		496			1336			465			721	
Travel Time (s)		11.3			30.4			7.0			10.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	5	97	5	46	1	1670	115	189	3051	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	5	0	0	102	46	1	1785	0	189	3075	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45	45	45	144		45	162	
Trailing Detector (ft)	0	0		0	0	0	0	138		0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	20	45		20	45	45	45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								138			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type		NA		Perm	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases		8			4	4 5	1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4	4 5	1	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		4.0	15.0		3.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	21.0		9.0	21.0	
Total Split (s)	22.0	22.0		22.0	22.0		11.0	71.0		27.0	87.0	
Total Split (%)	18.3%	18.3%		18.3%	18.3%		9.2%	59.2%		22.5%	72.5%	
Maximum Green (s)	16.0	16.0		16.0	16.0		5.0	65.0		21.0	81.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		3.0	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)		12.6			12.6	35.2	5.4	72.8		16.6	93.2	
Actuated g/C Ratio		0.10			0.10	0.29	0.04	0.61		0.14	0.78	
v/c Ratio		0.02			0.71	0.10	0.01	0.58		0.77	0.78	
Control Delay		0.2			77.6	28.4	36.0	6.0		64.5	6.9	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.6	
Total Delay		0.2			77.6	28.4	36.0	6.0		64.5	7.5	
LOS		A			E	C	D	A		E	A	
Approach Delay		0.2			62.3			6.0			10.8	
Approach LOS		A			E			A			B	
Queue Length 50th (ft)		0			77	26	1	89		132	106	
Queue Length 95th (ft)		0			136	50	m2	13		m164	m562	
Internal Link Dist (ft)		416			1256			385			641	
Turn Bay Length (ft)						100	100			350		
Base Capacity (vph)		332			182	496	80	3060		309	3945	
Starvation Cap Reductn		0			0	0	0	120		0	432	
Spillback Cap Reductn		0			0	0	0	0		0	442	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.02			0.56	0.09	0.01	0.61		0.61	0.88	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 103 (86%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 10.6		Intersection LOS: B	
Intersection Capacity Utilization 84.9%		ICU Level of Service E	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 9: Essen & Essen Park

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	176	176	1531	674	338	1026
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		0	150	
Storage Lanes	2	1		0	1	
Taper Length (ft)	25				100	
Lane Util. Factor	0.97	1.00	0.91	0.91	1.00	0.95
Frt		0.850	0.954			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	4851	0	1770	3539
Flt Permitted	0.950				0.056	
Satd. Flow (perm)	3433	1583	4851	0	104	3539
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			120			
Link Speed (mph)	30		45			45
Link Distance (ft)	1306		805			993
Travel Time (s)	29.7		12.2			15.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	191	191	1664	733	367	1115
Shared Lane Traffic (%)						
Lane Group Flow (vph)	191	191	2397	0	367	1115
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	52		20			25
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2		1	2
Detector Template						
Leading Detector (ft)	45	45	162		45	162
Trailing Detector (ft)	0	0	156		0	156
Detector 1 Position(ft)	0	0	-6		0	-6
Detector 1 Size(ft)	45	45	51		45	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			156			156
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm	pt+ov	NA		pm+pt	NA
Protected Phases		5 8	6		5	2
Permitted Phases	8				2	
Detector Phase	8	5 8	6		5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	4.0		15.0		5.0	15.0
Minimum Split (s)	20.0		21.0		11.0	21.0
Total Split (s)	20.0		60.0		40.0	100.0
Total Split (%)	16.7%		50.0%		33.3%	83.3%
Maximum Green (s)	16.0		54.0		34.0	94.0
Yellow Time (s)	3.5		5.0		5.0	5.0
All-Red Time (s)	0.5		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.0		6.0		6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		5.0		2.0	5.0
Minimum Gap (s)	3.0		3.0		0.2	3.0
Time Before Reduce (s)	0.0		15.0		0.0	15.0
Time To Reduce (s)	0.0		15.0		0.0	15.0
Recall Mode	None		C-Min		None	Min
Walk Time (s)	5.0					
Flash Dont Walk (s)	11.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	14.8	42.7	65.3		95.2	95.2
Actuated g/C Ratio	0.12	0.36	0.54		0.79	0.79
v/c Ratio	0.45	0.34	0.89		0.89	0.40
Control Delay	52.2	28.4	21.9		61.7	5.5
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	52.2	28.4	21.9		61.7	5.5
LOS	D	C	C		E	A
Approach Delay	40.3		21.9			19.4
Approach LOS	D		C			B
Queue Length 50th (ft)	71	106	654		240	153
Queue Length 95th (ft)	108	146	#825		361	188
Internal Link Dist (ft)	1226		725			913
Turn Bay Length (ft)		100			150	
Base Capacity (vph)	457	680	2695		554	2808
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.42	0.28	0.89		0.66	0.40

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 13 (11%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 22.7		Intersection LOS: C	
Intersection Capacity Utilization 81.7%		ICU Level of Service D	

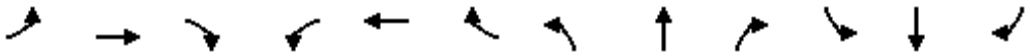
Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 17: Essen & United Plaza South

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	315	25	20	51	98	162	105	1152	51	184	1352	1184
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	425		50	280		280	150		0	550		300
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	100			200			25			100		
Lane Util. Factor	0.91	0.91	1.00	0.95	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Frt			0.850			0.850		0.994				0.850
Flt Protected	0.950	0.962		0.950	0.997		0.950			0.950		
Satd. Flow (prot)	3221	1631	1583	1681	1764	1583	1770	5055	0	1770	5085	1583
Flt Permitted	0.950	0.962		0.950	0.997		0.950			0.950		
Satd. Flow (perm)	3221	1631	1583	1681	1764	1583	1770	5055	0	1770	5085	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								6				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1908			1396			1335			1106	
Travel Time (s)		43.4			31.7			20.2			16.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	342	27	22	55	107	176	114	1252	55	200	1470	1287
Shared Lane Traffic (%)	28%			10%								
Lane Group Flow (vph)	246	123	22	49	113	176	114	1307	0	200	1470	1287
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		45			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	0	1	1	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	0	45	45	45	45	162		45	162	0
Trailing Detector (ft)	0	0	0	0	0	0	0	156		0	156	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	-6		0	-6	-6
Detector 1 Size(ft)	45	45	20	45	45	45	45	51		45	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Call
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4	4 5	1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4	4 5	1	6		5	2	2 8

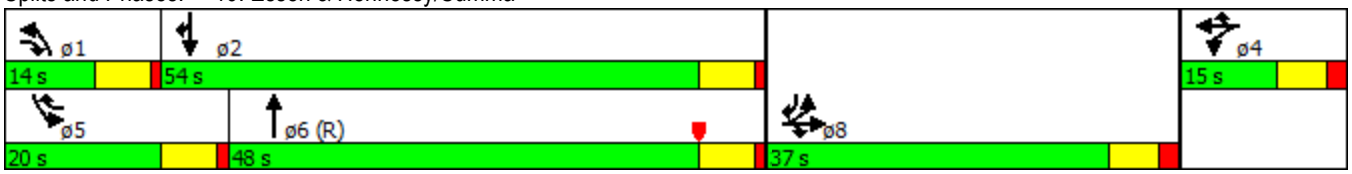


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.5	14.5		14.5	14.5		9.0	21.0		9.0	21.0	
Total Split (s)	37.0	37.0		15.0	15.0		14.0	48.0		20.0	54.0	
Total Split (%)	30.8%	30.8%		12.5%	12.5%		11.7%	40.0%		16.7%	45.0%	
Maximum Green (s)	30.5	30.5		8.5	8.5		8.0	42.0		14.0	48.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	30.5	30.5	38.0	8.5	8.5	28.5	8.0	42.0		14.0	48.0	85.0
Actuated g/C Ratio	0.25	0.25	0.32	0.07	0.07	0.24	0.07	0.35		0.12	0.40	0.71
v/c Ratio	0.30	0.30	0.04	0.41	0.91	0.47	0.97	0.74		0.97	0.72	1.15
Control Delay	37.4	38.5	17.8	64.3	115.6	44.1	142.4	28.5		104.8	27.7	89.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	37.4	38.5	17.8	64.3	115.6	44.1	142.4	28.5		104.8	27.7	89.7
LOS	D	D	B	E	F	D	F	C		F	C	F
Approach Delay		36.6			71.0			37.6			59.9	
Approach LOS		D			E			D			E	
Queue Length 50th (ft)	85	84	8	38	93	118	85	328		155	240	~1204
Queue Length 95th (ft)	124	146	23	83	#212	190	#218	385		m#233	319	#1469
Internal Link Dist (ft)		1828			1316			1255			1026	
Turn Bay Length (ft)	425		50	280		280	150			550		300
Base Capacity (vph)	818	414	501	119	124	375	118	1773		206	2034	1121
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.30	0.30	0.04	0.41	0.91	0.47	0.97	0.74		0.97	0.72	1.15

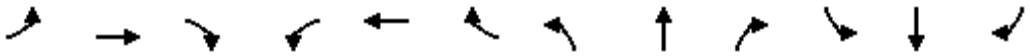
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 70 (58%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.15			
Intersection Signal Delay: 52.7		Intersection LOS: D	
Intersection Capacity Utilization 101.2%		ICU Level of Service G	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Essen & Hennessy/Summa



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	74	42	65	43	155	19	192	1215	86	66	1065	290
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	150		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.909			0.983			0.990			0.968	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1693	0	1770	1831	0	1770	5034	0	1770	4923	0
Flt Permitted	0.370			0.594			0.950			0.950		
Satd. Flow (perm)	689	1693	0	1106	1831	0	1770	5034	0	1770	4923	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		60			5			15			72	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1062			1416			1475			1335	
Travel Time (s)		24.1			32.2			22.3			20.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	80	46	71	47	168	21	209	1321	93	72	1158	315
Shared Lane Traffic (%)												
Lane Group Flow (vph)	80	117	0	47	189	0	209	1414	0	72	1473	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template												
Leading Detector (ft)	45	45		45	45		45	162		45	162	
Trailing Detector (ft)	0	0		0	0		0	156		0	156	
Detector 1 Position(ft)	0	0		0	0		0	-6		0	-6	
Detector 1 Size(ft)	45	45		45	45		45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4		1	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		2.0	15.0		3.0	15.0	
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	21.0		9.0	21.0	
Total Split (s)	33.0	33.0		33.0	33.0		29.0	73.0		14.0	58.0	
Total Split (%)	27.5%	27.5%		27.5%	27.5%		24.2%	60.8%		11.7%	48.3%	
Maximum Green (s)	28.0	28.0		28.0	28.0		23.0	67.0		8.0	52.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Act Effct Green (s)	16.9	16.9		16.9	16.9		18.4	80.9		7.6	67.7	
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.15	0.67		0.06	0.56	
v/c Ratio	0.82	0.40		0.30	0.72		0.77	0.42		0.64	0.52	
Control Delay	103.0	27.1		49.5	63.0		67.4	10.3		47.0	3.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	103.0	27.1		49.5	63.0		67.4	10.3		47.0	3.5	
LOS	F	C		D	E		E	B		D	A	
Approach Delay		57.9			60.3			17.6			5.5	
Approach LOS		E			E			B			A	
Queue Length 50th (ft)	61	40		33	138		157	177		52	2	
Queue Length 95th (ft)	#126	92		68	206		233	243		m77	15	
Internal Link Dist (ft)		982			1336			1395			1255	
Turn Bay Length (ft)	225			150			150			150		
Base Capacity (vph)	160	441		258	431		339	3398		118	2810	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.50	0.27		0.18	0.44		0.62	0.42		0.61	0.52	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 70 (58%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 17.4		Intersection LOS: B	
Intersection Capacity Utilization 69.4%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Essen & Picardy

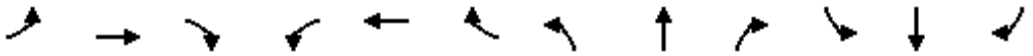
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	24	28	1829	184	363	1384
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	125		125	125	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.88	0.91	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2787	5085	1583	1770	3539
Flt Permitted	0.950				0.053	
Satd. Flow (perm)	1770	2787	5085	1583	99	3539
Right Turn on Red		Yes		No		
Satd. Flow (RTOR)		30				
Link Speed (mph)	30		45			45
Link Distance (ft)	1179		993			571
Travel Time (s)	26.8		15.0			8.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	30	1988	200	395	1504
Shared Lane Traffic (%)						
Lane Group Flow (vph)	26	30	1988	200	395	1504
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	42		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template						
Leading Detector (ft)	45	45	290	45	45	290
Trailing Detector (ft)	-6	-6	284	-6	-6	284
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			284			284
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	pt+ov	pm+pt	NA
Protected Phases	4		6	6 4	5	2
Permitted Phases		4			2	
Detector Phase	4	4	6	6 4	5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	5.0	5.0	15.0		3.0	15.0
Minimum Split (s)	11.0	11.0	21.0		9.0	21.0
Total Split (s)	17.0	17.0	63.0		40.0	103.0
Total Split (%)	14.2%	14.2%	52.5%		33.3%	85.8%
Maximum Green (s)	11.0	11.0	57.0		34.0	97.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0
Recall Mode	None	None	C-Min		None	Min
Act Effct Green (s)	6.6	6.6	69.5	82.1	101.4	101.4
Actuated g/C Ratio	0.06	0.06	0.58	0.68	0.84	0.84
v/c Ratio	0.27	0.16	0.68	0.18	0.89	0.50
Control Delay	60.5	19.9	7.8	3.3	63.2	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	60.5	19.9	7.8	3.3	63.2	1.1
LOS	E	B	A	A	E	A
Approach Delay	38.8		7.4			14.0
Approach LOS	D		A			B
Queue Length 50th (ft)	20	0	105	18	243	43
Queue Length 95th (ft)	49	17	157	m25	311	0
Internal Link Dist (ft)	1099		913			491
Turn Bay Length (ft)		125		125	125	
Base Capacity (vph)	162	282	2944	1140	561	2989
Starvation Cap Reductn	0	0	0	0	0	401
Spillback Cap Reductn	0	0	73	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.11	0.69	0.18	0.70	0.58

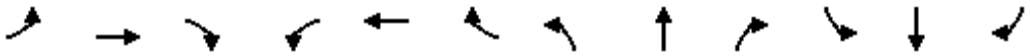
Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 27 (23%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 10.9 Intersection LOS: B
Intersection Capacity Utilization 74.6% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 28: Essen & United Plaza North



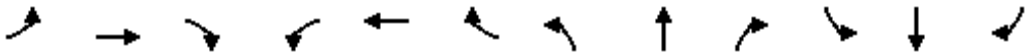
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	2	20	27	0	31	16	1727	114	352	1700	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		100	175		0	150		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	0.95
Frt		0.862				0.850		0.991			0.998	
Flt Protected	0.950				0.950		0.950			0.950		
Satd. Flow (prot)	1770	1606	0	0	1770	1583	1770	5040	0	1770	3532	0
Flt Permitted	0.738				0.742		0.116			0.062		
Satd. Flow (perm)	1375	1606	0	0	1382	1583	216	5040	0	115	3532	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		22						11			2	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		757			843			571			472	
Travel Time (s)		17.2			19.2			8.7			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	2	22	29	0	34	17	1877	124	383	1848	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	24	0	0	29	34	17	2001	0	383	1870	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290		45	390	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284		-6	384	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6		-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51		51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			384	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		8		7	4	4 5	1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4	4 5	1	6		5	2	



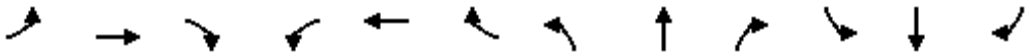
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	31.0		11.0	31.0	
Total Split (s)	14.0	14.0		11.0	25.0		11.0	60.0		35.0	84.0	
Total Split (%)	11.7%	11.7%		9.2%	20.8%		9.2%	50.0%		29.2%	70.0%	
Maximum Green (s)	8.0	8.0		5.0	19.0		5.0	54.0		29.0	78.0	
Yellow Time (s)	4.5	4.5		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		2.0	2.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lead		Lag			Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	3.0		0.2	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	7.8	7.8			7.8	35.9	72.1	72.1		93.6	94.8	
Actuated g/C Ratio	0.06	0.06			0.06	0.30	0.60	0.60		0.78	0.79	
v/c Ratio	0.50	0.19			0.32	0.07	0.07	0.66		0.90	0.67	
Control Delay	72.6	24.8			62.3	24.5	1.3	3.6		58.0	4.8	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.6	0.3	
Total Delay	72.6	24.8			62.3	24.5	1.3	3.7		58.6	5.1	
LOS	E	C			E	C	A	A		E	A	
Approach Delay		56.0			41.9			3.6			14.2	
Approach LOS		E			D			A			B	
Queue Length 50th (ft)	34	1			22	18	0	16		247	68	
Queue Length 95th (ft)	73	29			53	36	m0	6		m250	224	
Internal Link Dist (ft)		677			763			491			392	
Turn Bay Length (ft)	75					100	175			150		
Base Capacity (vph)	99	136			218	556	251	3032		510	2806	
Starvation Cap Reductn	0	0			0	0	0	47		17	352	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.45	0.18			0.13	0.06	0.07	0.67		0.78	0.76	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 28 (23%), Referenced to phase 2:SBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 10.4		Intersection LOS: B	
Intersection Capacity Utilization 79.3%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 29: Essen & Sholar/Archives



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	366	0	287	0	0	0	0	1218	581	0	1786	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.867							0.850			
Flt Protected	0.950	0.994										
Satd. Flow (prot)	1681	1525	0	0	0	0	0	3539	1583	0	3539	0
Flt Permitted	0.950	0.994										
Satd. Flow (perm)	1681	1525	0	0	0	0	0	3539	1583	0	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36							299			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		995			508			472			1384	
Travel Time (s)		22.6			11.5			7.2			21.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	398	0	312	0	0	0	0	1324	632	0	1941	0
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	358	352	0	0	0	0	0	1324	632	0	1941	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1						2	1		2	
Detector Template												
Leading Detector (ft)	45	45						290	45		290	
Trailing Detector (ft)	-6	-6						284	-6		284	
Detector 1 Position(ft)	-6	-6						-6	-6		-6	
Detector 1 Size(ft)	51	51						51	51		51	
Detector 1 Type	Cl+Ex	Cl+Ex						Call	Cl+Ex		Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0		0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA						NA	Free		NA	
Protected Phases		8						6			2	
Permitted Phases	8								Free			
Detector Phase	8	8						6			2	



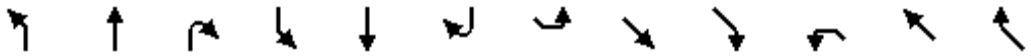
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	10.0	10.0						25.0			25.0	
Minimum Split (s)	17.0	17.0						32.0			32.0	
Total Split (s)	40.0	40.0						80.0			80.0	
Total Split (%)	33.3%	33.3%						66.7%			66.7%	
Maximum Green (s)	33.0	33.0						73.0			73.0	
Yellow Time (s)	5.0	5.0						5.0			5.0	
All-Red Time (s)	2.0	2.0						2.0			2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	7.0	7.0						7.0			7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5						5.0			5.0	
Minimum Gap (s)	0.2	0.2						3.0			3.0	
Time Before Reduce (s)	0.0	0.0						15.0			15.0	
Time To Reduce (s)	0.0	0.0						15.0			15.0	
Recall Mode	None	None						C-Max			Max	
Act Effct Green (s)	29.3	29.3						76.7	120.0		76.7	
Actuated g/C Ratio	0.24	0.24						0.64	1.00		0.64	
v/c Ratio	0.87	0.88						0.59	0.40		0.86	
Control Delay	65.1	62.3						12.0	1.0		23.2	
Queue Delay	0.0	0.0						0.2	0.0		0.2	
Total Delay	65.1	62.3						12.1	1.0		23.5	
LOS	E	E						B	A		C	
Approach Delay		63.7						8.5			23.5	
Approach LOS		E						A			C	
Queue Length 50th (ft)	273	245						144	0		624	
Queue Length 95th (ft)	#413	#395						309	0		777	
Internal Link Dist (ft)		915			428			392			1304	
Turn Bay Length (ft)	400											
Base Capacity (vph)	462	445						2261	1583		2261	
Starvation Cap Reductn	0	0						223	0		0	
Spillback Cap Reductn	0	0						0	0		41	
Storage Cap Reductn	0	0						0	0		0	
Reduced v/c Ratio	0.77	0.79						0.65	0.40		0.87	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 20 (17%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 23.3		Intersection LOS: C	
Intersection Capacity Utilization 80.0%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 32: Essen & I-12 EB

M.16 2017 PHASE 1 NOON – ESSEN LANE

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	216	573	81	348	860	384	472	803	123	158	1072	303
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	800		0	300		0	150		0
Storage Lanes	1		0	1		1	2		0	1		0
Taper Length (ft)	150			25			200			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Frt		0.981				0.850		0.980			0.967	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3472	0	1770	3539	1583	3433	3468	0	1770	3422	0
Flt Permitted	0.115			0.099			0.950			0.950		
Satd. Flow (perm)	214	3472	0	184	3539	1583	3433	3468	0	1770	3422	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8				254		11			23	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1877			1475			2128			1788	
Travel Time (s)		28.4			22.3			32.2			27.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	235	623	88	378	935	417	513	873	134	172	1165	329
Shared Lane Traffic (%)												
Lane Group Flow (vph)	235	711	0	378	935	417	513	1007	0	172	1494	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	0	1	1		1	1	
Detector Template												
Leading Detector (ft)	45	162		45	162	0	45	45		45	45	
Trailing Detector (ft)	0	156		0	156	0	0	0		0	0	
Detector 1 Position(ft)	0	-6		0	-6	0	0	0		0	0	
Detector 1 Size(ft)	45	51		45	51	50	45	45		45	45	
Detector 1 Type	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2		2						
Detector Phase	1	6		5	2	2	3	8		7	4	



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	5.0	10.0		3.0	10.0	
Minimum Split (s)	8.8	15.8		8.8	15.8	15.8	11.5	16.5		9.5	16.5	
Total Split (s)	22.0	40.6		34.0	52.6	52.6	30.0	71.8		28.2	70.0	
Total Split (%)	12.6%	23.3%		19.5%	30.1%	30.1%	17.2%	41.1%		16.2%	40.1%	
Maximum Green (s)	16.2	34.8		28.2	46.8	46.8	23.5	65.3		21.7	63.5	
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8	5.5	5.5		5.5	5.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8		5.8	5.8	5.8	6.5	6.5		6.5	6.5	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	6.0		2.0	6.0	6.0	2.0	6.0		2.0	6.0	
Minimum Gap (s)	0.2	4.0		0.2	4.0	4.0	0.2	4.0		0.2	4.0	
Time Before Reduce (s)	0.0	20.0		0.0	20.0	20.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	
Act Effct Green (s)	51.0	34.8		68.8	46.8	46.8	23.5	61.3		25.7	63.5	
Actuated g/C Ratio	0.29	0.20		0.39	0.27	0.27	0.13	0.35		0.15	0.36	
v/c Ratio	1.14	1.02		1.15	0.99	0.68	1.11	0.82		0.66	1.19	
Control Delay	151.0	105.2		145.2	88.6	27.8	141.4	57.3		83.9	138.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	151.0	105.2		145.2	88.6	27.8	141.4	57.3		83.9	138.9	
LOS	F	F		F	F	C	F	E		F	F	
Approach Delay		116.6			86.3			85.7			133.2	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~261	~447		~456	565	173	~344	540		192	~1072	
Queue Length 95th (ft)	#453	#583		#679	#714	309	#468	618		#315	#1212	
Internal Link Dist (ft)		1797			1395			2048			1708	
Turn Bay Length (ft)	250			800			300			150		
Base Capacity (vph)	206	698		328	948	610	462	1303		260	1259	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	1.14	1.02		1.15	0.99	0.68	1.11	0.77		0.66	1.19	

Intersection Summary

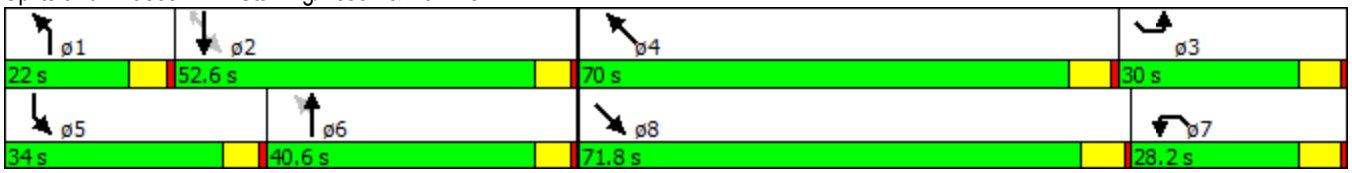
Area Type: Other
Cycle Length: 174.6
Actuated Cycle Length: 174.6
Natural Cycle: 140
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.19
Intersection Signal Delay: 104.4 Intersection LOS: F
Intersection Capacity Utilization 111.0% ICU Level of Service H
Analysis Period (min) 15

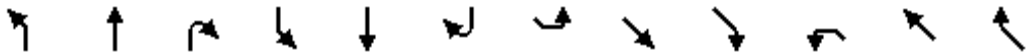
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Starring/Essen & Perkins





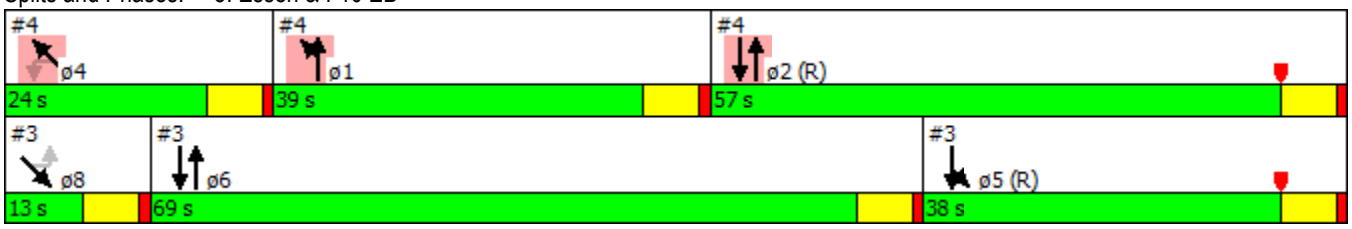
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	0	1881	470	334	1357	0	12	0	924	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		0	0		800	0		0
Storage Lanes	1		0	2		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.86	0.86	0.97	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt		0.970							0.850			
Flt Protected				0.950			0.950	0.950				
Satd. Flow (prot)	0	6216	0	3433	3539	0	1681	1681	1583	0	0	0
Flt Permitted				0.950			0.950	0.950				
Satd. Flow (perm)	0	6216	0	3433	3539	0	1681	1681	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		79							245			
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		721			409			1012			1106	
Travel Time (s)		10.9			6.2			23.0			25.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	2045	511	363	1475	0	13	0	1004	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	0	2556	0	363	1475	0	6	7	1004	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2		1	1	0			
Detector Template							Left					
Leading Detector (ft)		162		45	162		20	45	0			
Trailing Detector (ft)		156		0	156		0	0	0			
Detector 1 Position(ft)		-6		0	-6		0	0	0			
Detector 1 Size(ft)		51		45	51		20	45	20			
Detector 1 Type		Call		Cl+Ex	Call		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Queue (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Delay (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA		Prot	NA		Perm	NA	Free			
Protected Phases		6		5	5 6			8				
Permitted Phases							8		Free			
Detector Phase		6		5	5 6		8	8				

Lane Group	ø1	ø2	ø4
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	1	2	4
Permitted Phases			
Detector Phase			

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)		10.0		3.0			3.0	3.0				
Minimum Split (s)		16.0		9.0			9.0	9.0				
Total Split (s)		69.0		38.0			13.0	13.0				
Total Split (%)		57.5%		31.7%			10.8%	10.8%				
Maximum Green (s)		63.0		32.0			7.0	7.0				
Yellow Time (s)		5.0		5.0			5.0	5.0				
All-Red Time (s)		1.0		1.0			1.0	1.0				
Lost Time Adjust (s)		0.0		0.0			0.0	0.0				
Total Lost Time (s)		6.0		6.0			6.0	6.0				
Lead/Lag		Lag					Lead	Lead				
Lead-Lag Optimize?		Yes					Yes	Yes				
Vehicle Extension (s)		4.0		2.5			2.0	2.0				
Minimum Gap (s)		2.0		0.2			0.2	0.2				
Time Before Reduce (s)		10.0		0.0			0.0	0.0				
Time To Reduce (s)		20.0		0.0			0.0	0.0				
Recall Mode		None		C-Max			Max	Max				
Act Effct Green (s)		59.4		35.6	101.0		7.0	7.0	120.0			
Actuated g/C Ratio		0.50		0.30	0.84		0.06	0.06	1.00			
v/c Ratio		0.82		0.36	0.50		0.06	0.07	0.63			
Control Delay		21.0		20.0	6.6		55.0	55.2	1.9			
Queue Delay		0.1		0.0	0.3		0.0	0.0	0.0			
Total Delay		21.1		20.0	7.0		55.0	55.2	1.9			
LOS		C		C	A		D	E	A			
Approach Delay		21.1			9.5			2.6				
Approach LOS		C			A			A				
Queue Length 50th (ft)		595		111	140		5	5	0			
Queue Length 95th (ft)		138		109	168		20	22	0			
Internal Link Dist (ft)		641			329			932			1026	
Turn Bay Length (ft)									800			
Base Capacity (vph)		3300		1017	2920		98	98	1583			
Starvation Cap Reductn		131		0	743		0	0	0			
Spillback Cap Reductn		101		0	0		0	0	0			
Storage Cap Reductn		0		0	0		0	0	0			
Reduced v/c Ratio		0.81		0.36	0.68		0.06	0.07	0.63			

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 36 (30%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 13.7		Intersection LOS: B	
Intersection Capacity Utilization 63.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Essen & I-10 EB

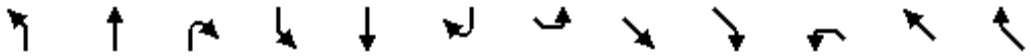


Lane Group	ø1	ø2	ø4
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	39.0	57.0	24.0
Total Split (%)	33%	48%	20%
Maximum Green (s)	33.0	51.0	18.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes
Vehicle Extension (s)	2.5	4.0	4.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	None	C-Max	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	498	1395	0	0	1481	75	0	0	0	210	0	278
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	550		200	0		0	750		0
Storage Lanes	2		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.86	0.86	1.00	1.00	1.00	0.95	0.95	1.00
Frt					0.993							0.850
Flt Protected	0.950									0.950	0.950	
Satd. Flow (prot)	3433	3539	0	0	6363	0	0	0	0	1681	1681	1583
Flt Permitted	0.950									0.950	0.950	
Satd. Flow (perm)	3433	3539	0	0	6363	0	0	0	0	1681	1681	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10							245
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		409			805			936			1390	
Travel Time (s)		6.2			12.2			21.3			31.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	541	1516	0	0	1610	82	0	0	0	228	0	302
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	541	1516	0	0	1692	0	0	0	0	114	114	302
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			20			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2					1	1	0
Detector Template										Left		
Leading Detector (ft)	45	162			162					20	45	0
Trailing Detector (ft)	0	156			156					0	0	0
Detector 1 Position(ft)	0	-6			-6					0	0	0
Detector 1 Size(ft)	45	51			51					20	45	20
Detector 1 Type	Cl+Ex	Call			Call					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA			NA					Perm	NA	Free
Protected Phases	1	1 2			2						4	
Permitted Phases										4		Free
Detector Phase	1	1 2			2					4	4	

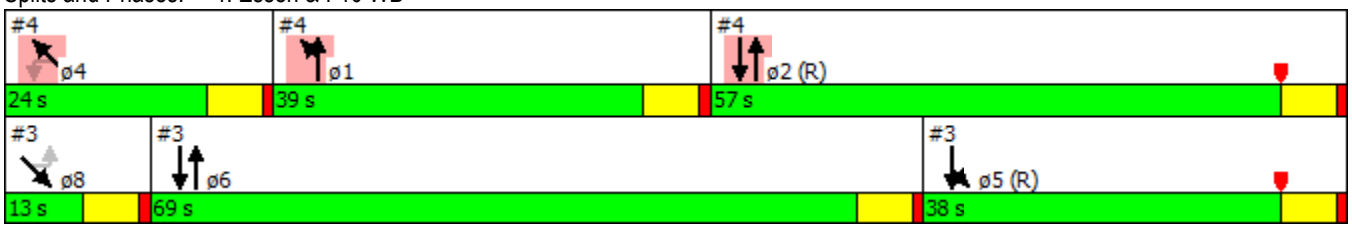
Lane Group	ø5	ø6	ø8
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	5	6	8
Permitted Phases			
Detector Phase			



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0				10.0					3.0	3.0	
Minimum Split (s)	9.0				16.0					9.0	9.0	
Total Split (s)	39.0				57.0					24.0	24.0	
Total Split (%)	32.5%				47.5%					20.0%	20.0%	
Maximum Green (s)	33.0				51.0					18.0	18.0	
Yellow Time (s)	5.0				5.0					5.0	5.0	
All-Red Time (s)	1.0				1.0					1.0	1.0	
Lost Time Adjust (s)	0.0				0.0					0.0	0.0	
Total Lost Time (s)	6.0				6.0					6.0	6.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?	Yes									Yes	Yes	
Vehicle Extension (s)	2.5				4.0					4.0	4.0	
Minimum Gap (s)	0.2				2.0					0.2	0.2	
Time Before Reduce (s)	0.0				10.0					0.0	0.0	
Time To Reduce (s)	0.0				20.0					0.0	0.0	
Recall Mode	None				C-Max					None	None	
Act Effct Green (s)	28.3	94.0			59.7					14.0	14.0	120.0
Actuated g/C Ratio	0.24	0.78			0.50					0.12	0.12	1.00
v/c Ratio	0.67	0.55			0.53					0.58	0.58	0.19
Control Delay	37.4	3.7			21.1					61.6	61.6	0.3
Queue Delay	0.0	1.4			0.0					0.0	0.0	0.0
Total Delay	37.4	5.1			21.1					61.6	61.6	0.3
LOS	D	A			C					E	E	A
Approach Delay		13.6			21.1						26.6	
Approach LOS		B			C						C	
Queue Length 50th (ft)	103	4			245					89	89	0
Queue Length 95th (ft)	157	5			199					149	149	0
Internal Link Dist (ft)		329			725			856			1310	
Turn Bay Length (ft)										750		
Base Capacity (vph)	952	2754			3169					252	252	1583
Starvation Cap Reductn	0	970			0					0	0	0
Spillback Cap Reductn	0	0			0					0	0	0
Storage Cap Reductn	0	0			0					0	0	0
Reduced v/c Ratio	0.57	0.85			0.53					0.45	0.45	0.19

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 36 (30%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 18.2		Intersection LOS: B	
Intersection Capacity Utilization 63.0%		ICU Level of Service B	
Analysis Period (min) 15			

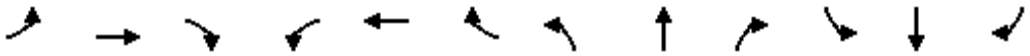
Splits and Phases: 4: Essen & I-10 WB



Lane Group	ø5	ø6	ø8
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	38.0	69.0	13.0
Total Split (%)	32%	58%	11%
Maximum Green (s)	32.0	63.0	7.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lead
Lead-Lag Optimize?		Yes	Yes
Vehicle Extension (s)	2.5	4.0	2.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	C-Max	None	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	100	1	85	58	0	130	49	2151	49	127	2042	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	300		0	150		200	200		0
Storage Lanes	2		0	2		1	1		1	1		0
Taper Length (ft)	25			25			100			50		
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Frt		0.852				0.850			0.850		0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	1587	0	3433	1863	1583	1770	5085	1583	1770	5050	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1587	0	3433	1863	1583	1770	5085	1583	1770	5050	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		92									11	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1095			896			1095			476	
Travel Time (s)		24.9			20.4			16.6			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	1	92	63	0	141	53	2338	53	138	2220	101
Shared Lane Traffic (%)												
Lane Group Flow (vph)	109	93	0	63	0	141	53	2338	53	138	2321	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left		Right			Right			
Leading Detector (ft)	45	45		20	45	20	45	162	20	45	162	
Trailing Detector (ft)	0	0		0	0	0	0	156	0	0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6	0	0	-6	
Detector 1 Size(ft)	45	45		20	45	20	45	51	20	45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot		Free	Prot	NA	pt+ov	Prot	NA	
Protected Phases	3	8		7	4		1	6	6 7	5	2	
Permitted Phases						Free						
Detector Phase	3	8		7	4		1	6	6 7	5	2	

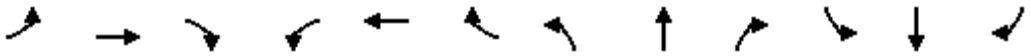


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	5.0		4.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	10.0	11.0		10.0	11.0		11.0	21.0		11.0	21.0	
Total Split (s)	12.0	13.0		12.0	13.0		15.0	68.0		27.0	80.0	
Total Split (%)	10.0%	10.8%		10.0%	10.8%		12.5%	56.7%		22.5%	66.7%	
Maximum Green (s)	6.0	7.0		6.0	7.0		9.0	62.0		21.0	74.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	2.0		3.0	2.0		2.0	2.5		2.0	2.0	
Minimum Gap (s)	3.0	0.2		3.0	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	16.5	6.1		6.8		120.0	7.4	71.8	84.5	13.7	80.1	
Actuated g/C Ratio	0.14	0.05		0.06		1.00	0.06	0.60	0.70	0.11	0.67	
v/c Ratio	0.23	0.55		0.32		0.09	0.49	0.77	0.05	0.68	0.69	
Control Delay	45.9	24.4		59.1		0.1	63.5	13.9	5.7	75.7	9.9	
Queue Delay	0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	45.9	24.4		59.1		0.1	63.5	13.9	5.7	75.7	9.9	
LOS	D	C		E		A	E	B	A	E	A	
Approach Delay		36.0						14.8			13.6	
Approach LOS		D						B			B	
Queue Length 50th (ft)	38	1		24		0	40	353	10	97	529	
Queue Length 95th (ft)	65	54		48		0	m48	384	m18	160	30	
Internal Link Dist (ft)		1015			816			1015			396	
Turn Bay Length (ft)	200			300			150		200	200		
Base Capacity (vph)	473	179		195		1583	132	3040	1115	309	3388	
Starvation Cap Reductn	0	0		0		0	0	0	0	0	98	
Spillback Cap Reductn	0	0		0		0	0	0	0	0	0	
Storage Cap Reductn	0	0		0		0	0	0	0	0	0	
Reduced v/c Ratio	0.23	0.52		0.32		0.09	0.40	0.77	0.05	0.45	0.71	

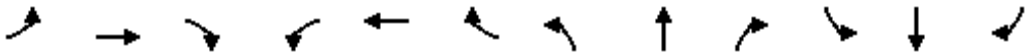
Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 97 (81%), Referenced to phase 2:SBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 15.2 Intersection LOS: B
Intersection Capacity Utilization 73.1% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Essen & Dijon/Dijon Ext



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	5	5	64	5	61	1	2284	98	77	2194	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	100		0	350		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			150		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.964				0.850		0.994			0.999	
Flt Protected		0.977			0.955		0.950			0.950		
Satd. Flow (prot)	0	1754	0	0	1779	1583	1770	5055	0	1770	5080	0
Flt Permitted		0.832			0.726		0.950			0.950		
Satd. Flow (perm)	0	1494	0	0	1352	1583	1770	5055	0	1770	5080	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		5						10			1	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		496			1336			476			721	
Travel Time (s)		11.3			30.4			7.2			10.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	5	5	70	5	66	1	2483	107	84	2385	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	19	0	0	75	66	1	2590	0	84	2397	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45	45	20	144		45	162	
Trailing Detector (ft)	0	0		0	0	0	0	138		0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	20	45		20	45	45	20	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								138			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases		8			4	4 5	1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4	4 5	1	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		4.0	15.0		3.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	21.0		9.0	21.0	
Total Split (s)	21.0	21.0		21.0	21.0		11.0	81.0		18.0	88.0	
Total Split (%)	17.5%	17.5%		17.5%	17.5%		9.2%	67.5%		15.0%	73.3%	
Maximum Green (s)	15.0	15.0		15.0	15.0		5.0	75.0		12.0	82.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		3.0	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)		10.7			10.7	26.3	5.4	81.7		9.6	95.1	
Actuated g/C Ratio		0.09			0.09	0.22	0.04	0.68		0.08	0.79	
v/c Ratio		0.14			0.62	0.19	0.01	0.75		0.60	0.60	
Control Delay		41.2			73.6	37.3	51.0	7.1		76.9	4.2	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.1	
Total Delay		41.2			73.6	37.3	51.0	7.1		76.9	4.3	
LOS		D			E	D	D	A		E	A	
Approach Delay		41.2			56.6			7.1			6.8	
Approach LOS		D			E			A			A	
Queue Length 50th (ft)		10			57	42	1	157		65	52	
Queue Length 95th (ft)		33			106	76	m1	50		m104	547	
Internal Link Dist (ft)		416			1256			396			641	
Turn Bay Length (ft)						100	100			350		
Base Capacity (vph)		191			169	362	80	3443		177	4024	
Starvation Cap Reductn		0			0	0	0	11		0	433	
Spillback Cap Reductn		0			0	0	0	0		0	384	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.10			0.44	0.18	0.01	0.75		0.47	0.67	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 105 (88%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 8.4		Intersection LOS: A	
Intersection Capacity Utilization 73.3%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 9: Essen & Essen Park

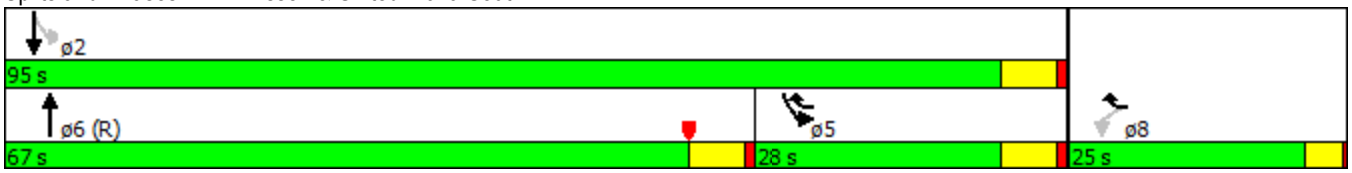
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	315	229	1473	201	137	1241
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		0	150	
Storage Lanes	2	1		0	1	
Taper Length (ft)	25				100	
Lane Util. Factor	0.97	1.00	0.91	0.91	1.00	0.95
Frt		0.850	0.982			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	4994	0	1770	3539
Flt Permitted	0.950				0.078	
Satd. Flow (perm)	3433	1583	4994	0	145	3539
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			30			
Link Speed (mph)	30		45			45
Link Distance (ft)	1306		805			993
Travel Time (s)	29.7		12.2			15.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	342	249	1601	218	149	1349
Shared Lane Traffic (%)						
Lane Group Flow (vph)	342	249	1819	0	149	1349
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	52		20			25
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2		1	2
Detector Template						
Leading Detector (ft)	45	45	162		45	162
Trailing Detector (ft)	0	0	156		0	256
Detector 1 Position(ft)	0	0	-6		0	-6
Detector 1 Size(ft)	45	45	51		45	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			156			256
Detector 2 Size(ft)			6			-94
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm	pt+ov	NA		pm+pt	NA
Protected Phases		5 8	6		5	2
Permitted Phases	8				2	
Detector Phase	8	5 8	6		5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	4.0		15.0		5.0	15.0
Minimum Split (s)	20.0		21.0		11.0	21.0
Total Split (s)	25.0		67.0		28.0	95.0
Total Split (%)	20.8%		55.8%		23.3%	79.2%
Maximum Green (s)	21.0		61.0		22.0	89.0
Yellow Time (s)	3.5		5.0		5.0	5.0
All-Red Time (s)	0.5		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.0		6.0		6.0	6.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		5.0		2.0	5.0
Minimum Gap (s)	3.0		3.0		0.2	3.0
Time Before Reduce (s)	0.0		15.0		0.0	15.0
Time To Reduce (s)	0.0		15.0		0.0	15.0
Recall Mode	None		C-Min		None	Min
Walk Time (s)	5.0					
Flash Dont Walk (s)	11.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	17.3	39.5	68.5		92.7	92.7
Actuated g/C Ratio	0.14	0.33	0.57		0.77	0.77
v/c Ratio	0.69	0.48	0.64		0.42	0.49
Control Delay	56.0	34.1	4.6		21.6	3.2
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	56.0	34.1	4.6		21.6	3.2
LOS	E	C	A		C	A
Approach Delay	46.8		4.6			5.1
Approach LOS	D		A			A
Queue Length 50th (ft)	131	152	39		28	88
Queue Length 95th (ft)	173	206	282		107	106
Internal Link Dist (ft)	1226		725			913
Turn Bay Length (ft)		100			150	
Base Capacity (vph)	608	550	2875		414	2741
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.56	0.45	0.63		0.36	0.49

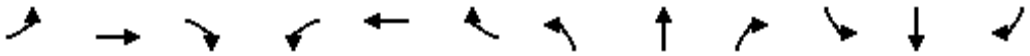
Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 31 (26%), Referenced to phase 6:NBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 11.1	Intersection LOS: B
Intersection Capacity Utilization 62.8%	ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 17: Essen & United Plaza South



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	774	82	97	108	81	212	79	1263	55	258	1388	540
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	425		50	280		280	150		0	550		300
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	100			200			25			100		
Lane Util. Factor	0.91	0.91	1.00	0.95	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Frt			0.850			0.850		0.994				0.850
Flt Protected	0.950	0.965		0.950	0.992		0.950			0.950		
Satd. Flow (prot)	3221	1636	1583	1681	1755	1583	1770	5055	0	1770	5085	1583
Flt Permitted	0.950	0.965		0.950	0.992		0.138			0.138		
Satd. Flow (perm)	3221	1636	1583	1681	1755	1583	257	5055	0	257	5085	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								6				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1908			1396			1335			1095	
Travel Time (s)		43.4			31.7			20.2			16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	841	89	105	117	88	230	86	1373	60	280	1509	587
Shared Lane Traffic (%)	27%			14%								
Lane Group Flow (vph)	614	316	105	101	104	230	86	1433	0	280	1509	587
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		45			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	0	1	1	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	0	45	45	45	45	162		45	162	0
Trailing Detector (ft)	0	0	0	0	0	0	0	156		0	156	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	-6		0	-6	-6
Detector 1 Size(ft)	45	45	20	45	45	45	45	51		45	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Call
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	pm+pt	NA		pm+pt	NA	pt+ov
Protected Phases	8	8	8 1	4	4	4 5	1	6		5	2	2 8
Permitted Phases							6			2		
Detector Phase	8	8	8 1	4	4	4 5	1	6		5	2	2 8

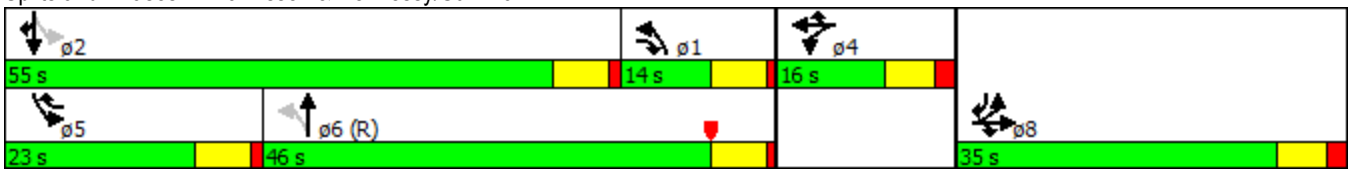


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.5	14.5		14.5	14.5		9.0	21.0		9.0	21.0	
Total Split (s)	35.0	35.0		16.0	16.0		14.0	46.0		23.0	55.0	
Total Split (%)	29.2%	29.2%		13.3%	13.3%		11.7%	38.3%		19.2%	45.8%	
Maximum Green (s)	28.5	28.5		9.5	9.5		8.0	40.0		17.0	49.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	27.7	27.7	39.5	9.5	9.5	25.5	41.4	41.4		45.5	45.5	79.7
Actuated g/C Ratio	0.23	0.23	0.33	0.08	0.08	0.21	0.34	0.34		0.38	0.38	0.66
v/c Ratio	0.83	0.84	0.20	0.76	0.75	0.69	0.35	0.82		0.92	0.78	0.56
Control Delay	54.4	64.1	18.4	87.6	85.9	36.3	28.4	26.1		76.6	30.2	14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	54.4	64.1	18.4	87.6	85.9	36.3	28.4	26.1		76.6	30.2	14.8
LOS	D	E	B	F	F	D	C	C		E	C	B
Approach Delay		53.7			60.1			26.2			31.9	
Approach LOS		D			E			C			C	
Queue Length 50th (ft)	247	256	39	82	84	87	38	390		157	192	199
Queue Length 95th (ft)	320	#414	75	#181	#181	144	m67	449		#328	280	317
Internal Link Dist (ft)		1828			1316			1255			1015	
Turn Bay Length (ft)	425		50	280		280	150			550		300
Base Capacity (vph)	764	388	532	133	138	342	243	1746		311	2076	1092
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.80	0.81	0.20	0.76	0.75	0.67	0.35	0.82		0.90	0.73	0.54

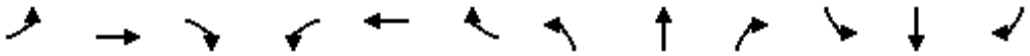
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 85 (71%), Referenced to phase 6:NBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 36.8		Intersection LOS: D	
Intersection Capacity Utilization 77.7%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Essen & Hennessy/Summa



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	204	126	185	67	84	69	143	1124	81	91	1341	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	150		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.911			0.932			0.990			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1697	0	1770	1736	0	1770	5034	0	1770	5004	0
Flt Permitted	0.553			0.240			0.950			0.950		
Satd. Flow (perm)	1030	1697	0	447	1736	0	1770	5034	0	1770	5004	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		64			36			12			21	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1062			1416			1475			1335	
Travel Time (s)		24.1			32.2			22.3			20.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	222	137	201	73	91	75	155	1222	88	99	1458	174
Shared Lane Traffic (%)												
Lane Group Flow (vph)	222	338	0	73	166	0	155	1310	0	99	1632	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template												
Leading Detector (ft)	45	45		45	45		45	162		45	162	
Trailing Detector (ft)	0	0		0	0		0	156		0	156	
Detector 1 Position(ft)	0	0		0	0		0	-6		0	-6	
Detector 1 Size(ft)	45	45		45	45		45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4		1	6		5	2	

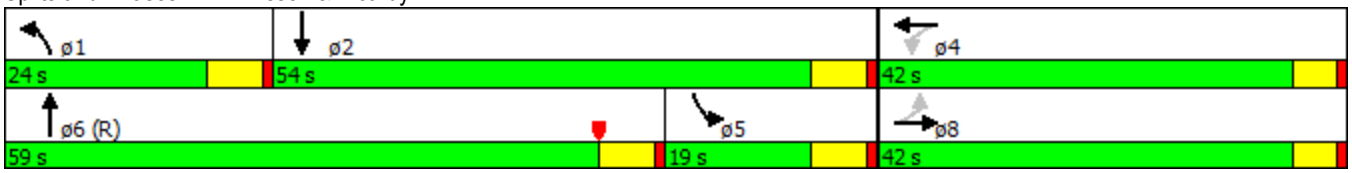


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		2.0	15.0		3.0	15.0	
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	21.0		9.0	21.0	
Total Split (s)	42.0	42.0		42.0	42.0		24.0	59.0		19.0	54.0	
Total Split (%)	35.0%	35.0%		35.0%	35.0%		20.0%	49.2%		15.8%	45.0%	
Maximum Green (s)	37.0	37.0		37.0	37.0		18.0	53.0		13.0	48.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Act Effct Green (s)	28.4	28.4		28.4	28.4		14.7	61.6		13.0	60.0	
Actuated g/C Ratio	0.24	0.24		0.24	0.24		0.12	0.51		0.11	0.50	
v/c Ratio	0.91	0.75		0.70	0.38		0.72	0.51		0.52	0.65	
Control Delay	82.8	44.2		72.6	30.7		68.8	20.9		37.3	6.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	82.8	44.2		72.6	30.7		68.8	20.9		37.3	6.5	
LOS	F	D		E	C		E	C		D	A	
Approach Delay		59.5			43.5			25.9			8.3	
Approach LOS		E			D			C			A	
Queue Length 50th (ft)	167	198		51	83		116	236		76	45	
Queue Length 95th (ft)	#251	281		103	135		185	319		m101	64	
Internal Link Dist (ft)		982			1336			1395			1255	
Turn Bay Length (ft)	225			150			150			150		
Base Capacity (vph)	317	567		137	560		265	2590		191	2510	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.70	0.60		0.53	0.30		0.58	0.51		0.52	0.65	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 72 (60%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 24.0		Intersection LOS: C	
Intersection Capacity Utilization 77.4%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Essen & Picardy



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	87	175	1602	84	163	1103
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	125		125	125	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.88	0.91	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2787	5085	1583	1770	3539
Flt Permitted	0.950				0.095	
Satd. Flow (perm)	1770	2787	5085	1583	177	3539
Right Turn on Red		Yes		No		
Satd. Flow (RTOR)		190				
Link Speed (mph)	30		45			45
Link Distance (ft)	1179		993			571
Travel Time (s)	26.8		15.0			8.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	95	190	1741	91	177	1199
Shared Lane Traffic (%)						
Lane Group Flow (vph)	95	190	1741	91	177	1199
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	42		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template						
Leading Detector (ft)	45	45	162	45	45	162
Trailing Detector (ft)	0	0	156	0	0	284
Detector 1 Position(ft)	0	0	-6	0	0	-6
Detector 1 Size(ft)	45	45	51	45	45	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			156			284
Detector 2 Size(ft)			6			-122
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	pt+ov	pm+pt	NA
Protected Phases	4		6	6 4	5	2
Permitted Phases		4			2	
Detector Phase	4	4	6	6 4	5	2

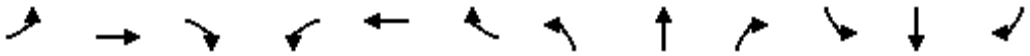
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	5.0	5.0	15.0		3.0	15.0
Minimum Split (s)	11.0	11.0	21.0		9.0	21.0
Total Split (s)	23.0	23.0	71.0		26.0	97.0
Total Split (%)	19.2%	19.2%	59.2%		21.7%	80.8%
Maximum Green (s)	17.0	17.0	65.0		20.0	91.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0
Recall Mode	None	None	C-Min		None	Min
Act Effct Green (s)	10.8	10.8	81.2	98.0	97.2	97.2
Actuated g/C Ratio	0.09	0.09	0.68	0.82	0.81	0.81
v/c Ratio	0.60	0.45	0.51	0.07	0.64	0.42
Control Delay	67.3	10.3	4.0	0.8	31.8	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	67.3	10.3	4.0	0.8	31.8	1.9
LOS	E	B	A	A	C	A
Approach Delay	29.3		3.9			5.7
Approach LOS	C		A			A
Queue Length 50th (ft)	72	0	72	1	35	33
Queue Length 95th (ft)	125	37	78	m7	105	36
Internal Link Dist (ft)	1099		913			491
Turn Bay Length (ft)		125		125	125	
Base Capacity (vph)	250	557	3439	1374	408	2866
Starvation Cap Reductn	0	0	0	0	0	395
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.34	0.51	0.07	0.43	0.49

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 42 (35%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 6.7		Intersection LOS: A	
Intersection Capacity Utilization 59.8%		ICU Level of Service B	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 28: Essen & United Plaza North

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	46	1	22	76	3	148	9	1712	55	166	1168	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		100	175		0	150		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	0.95
Frt		0.856				0.850		0.995			0.995	
Flt Protected	0.950				0.954		0.950			0.950		
Satd. Flow (prot)	1770	1595	0	0	1777	1583	1770	5060	0	1770	3522	0
Flt Permitted	0.701				0.715		0.210			0.067		
Satd. Flow (perm)	1306	1595	0	0	1332	1583	391	5060	0	125	3522	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		24						6			5	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		757			843			571			472	
Travel Time (s)		17.2			19.2			8.7			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	50	1	24	83	3	161	10	1861	60	180	1270	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	50	25	0	0	86	161	10	1921	0	180	1312	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	4	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	162		45	390	
Trailing Detector (ft)	0	0		0	0	0	0	156		0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	45	45		20	45	45	45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Detector 3 Position(ft)											308	
Detector 3 Size(ft)											6	
Detector 3 Type											Cl+Ex	
Detector 3 Channel												



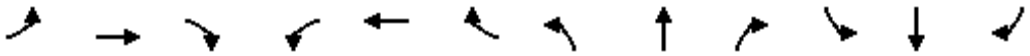
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 3 Extend (s)											0.0	
Detector 4 Position(ft)											384	
Detector 4 Size(ft)											6	
Detector 4 Type											Cl+Ex	
Detector 4 Channel												
Detector 4 Extend (s)											0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		8		7	4	4 5	1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4	4 5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	31.0		11.0	31.0	
Total Split (s)	17.0	17.0		11.0	28.0		11.0	67.0		25.0	81.0	
Total Split (%)	14.2%	14.2%		9.2%	23.3%		9.2%	55.8%		20.8%	67.5%	
Maximum Green (s)	11.0	11.0		5.0	22.0		5.0	61.0		19.0	75.0	
Yellow Time (s)	4.5	4.5		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		2.0	2.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lead		Lag			Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	3.0		0.2	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	13.5	13.5			13.5	30.3	78.7	77.7		91.9	91.9	
Actuated g/C Ratio	0.11	0.11			0.11	0.25	0.66	0.65		0.77	0.77	
v/c Ratio	0.34	0.12			0.57	0.40	0.03	0.59		0.74	0.49	
Control Delay	54.0	18.4			64.7	38.6	5.0	5.1		52.4	4.3	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.1	
Total Delay	54.0	18.4			64.7	38.6	5.0	5.1		52.4	4.3	
LOS	D	B			E	D	A	A		D	A	
Approach Delay		42.2			47.7			5.1			10.1	
Approach LOS		D			D			A			B	
Queue Length 50th (ft)	36	1			64	105	1	85		89	112	
Queue Length 95th (ft)	74	27			114	145	m2	58		157	115	
Internal Link Dist (ft)		677			763			491			392	
Turn Bay Length (ft)	75					100	175			150		
Base Capacity (vph)	152	207			244	501	317	3280		356	2699	
Starvation Cap Reductn	0	0			0	0	0	0		0	216	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.33	0.12			0.35	0.32	0.03	0.59		0.51	0.53	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	

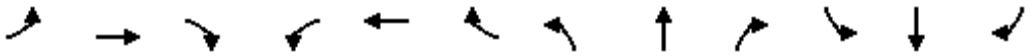
Actuated Cycle Length: 120	
Offset: 32 (27%), Referenced to phase 2:SBTL, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 10.7	Intersection LOS: B
Intersection Capacity Utilization 69.5%	ICU Level of Service C
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 29: Essen & Sholar/Archives



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	285	0	76	0	0	0	0	1190	715	0	1298	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.935							0.850			
Flt Protected	0.950	0.972										
Satd. Flow (prot)	1681	1608	0	0	0	0	0	3539	1583	0	3539	0
Flt Permitted	0.950	0.972										
Satd. Flow (perm)	1681	1608	0	0	0	0	0	3539	1583	0	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36							377			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		995			508			472			1384	
Travel Time (s)		22.6			11.5			7.2			21.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	310	0	83	0	0	0	0	1293	777	0	1411	0
Shared Lane Traffic (%)	35%											
Lane Group Flow (vph)	201	192	0	0	0	0	0	1293	777	0	1411	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1						2	1		2	
Detector Template												
Leading Detector (ft)	45	45						162	45		162	
Trailing Detector (ft)	0	0						156	0		156	
Detector 1 Position(ft)	0	0						-6	0		-6	
Detector 1 Size(ft)	45	45						51	45		51	
Detector 1 Type	Cl+Ex	Cl+Ex						Call	Cl+Ex		Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0		0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA						NA	Free		NA	
Protected Phases		8						6			2	
Permitted Phases	8								Free			
Detector Phase	8	8						6			2	



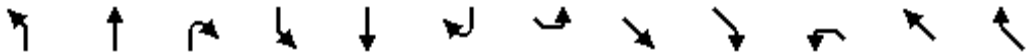
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	10.0	10.0						25.0			25.0	
Minimum Split (s)	17.0	17.0						32.0			32.0	
Total Split (s)	37.0	37.0						83.0			83.0	
Total Split (%)	30.8%	30.8%						69.2%			69.2%	
Maximum Green (s)	30.0	30.0						76.0			76.0	
Yellow Time (s)	5.0	5.0						5.0			5.0	
All-Red Time (s)	2.0	2.0						2.0			2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	7.0	7.0						7.0			7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5						5.0			5.0	
Minimum Gap (s)	0.2	0.2						3.0			3.0	
Time Before Reduce (s)	0.0	0.0						15.0			15.0	
Time To Reduce (s)	0.0	0.0						15.0			15.0	
Recall Mode	None	None						C-Max			Max	
Act Effct Green (s)	19.2	19.2						86.8	120.0		86.8	
Actuated g/C Ratio	0.16	0.16						0.72	1.00		0.72	
v/c Ratio	0.75	0.67						0.51	0.49		0.55	
Control Delay	64.7	49.2						3.9	1.8		9.3	
Queue Delay	0.0	0.0						0.1	0.0		0.0	
Total Delay	64.7	49.2						4.1	1.8		9.3	
LOS	E	D						A	A		A	
Approach Delay		57.1						3.2			9.3	
Approach LOS		E						A			A	
Queue Length 50th (ft)	157	121						30	0		233	
Queue Length 95th (ft)	230	192						133	22		355	
Internal Link Dist (ft)		915			428			392			1304	
Turn Bay Length (ft)	400											
Base Capacity (vph)	420	429						2560	1583		2560	
Starvation Cap Reductn	0	0						344	0		0	
Spillback Cap Reductn	0	0						0	0		0	
Storage Cap Reductn	0	0						0	0		0	
Reduced v/c Ratio	0.48	0.45						0.58	0.49		0.55	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 37 (31%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 10.9		Intersection LOS: B	
Intersection Capacity Utilization 57.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 32: Essen & I-12 EB

M.17 2017 PHASE 1 PM – ESSEN LANE

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	224	487	100	423	1005	661	512	1211	153	169	823	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	800		0	300		0	150		0
Storage Lanes	1		0	1		1	2		0	1		0
Taper Length (ft)	150			25			200			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Frt		0.974				0.850		0.983			0.966	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3447	0	1770	3539	1583	3433	3479	0	1770	3419	0
Flt Permitted	0.222			0.222			0.950			0.950		
Satd. Flow (perm)	414	3447	0	414	3539	1583	3433	3479	0	1770	3419	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16				326		11			28	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1877			1475			2128			1788	
Travel Time (s)		28.4			22.3			32.2			27.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	243	529	109	460	1092	718	557	1316	166	184	895	261
Shared Lane Traffic (%)												
Lane Group Flow (vph)	243	638	0	460	1092	718	557	1482	0	184	1156	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	0	1	1		1	1	
Detector Template												
Leading Detector (ft)	45	162		45	162	0	45	45		45	45	
Trailing Detector (ft)	0	156		0	156	0	0	0		0	0	
Detector 1 Position(ft)	0	-6		0	-6	0	0	0		0	0	
Detector 1 Size(ft)	45	51		45	51	50	45	45		45	45	
Detector 1 Type	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2		2						
Detector Phase	1	6		5	2	2	3	8		7	4	



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	5.0	10.0		3.0	10.0	
Minimum Split (s)	8.8	15.8		8.8	15.8	15.8	11.5	16.5		9.5	16.5	
Total Split (s)	18.0	36.0		30.0	48.0	48.0	25.0	55.0		19.0	49.0	
Total Split (%)	12.9%	25.7%		21.4%	34.3%	34.3%	17.9%	39.3%		13.6%	35.0%	
Maximum Green (s)	12.2	30.2		24.2	42.2	42.2	18.5	48.5		12.5	42.5	
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8	5.5	5.5		5.5	5.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8		5.8	5.8	5.8	6.5	6.5		6.5	6.5	
Lead/Lag	Lag	Lag		Lead	Lead	Lead	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	6.0		2.0	6.0	6.0	2.0	6.0		2.0	6.0	
Minimum Gap (s)	0.2	4.0		0.2	4.0	4.0	0.2	4.0		0.2	4.0	
Time Before Reduce (s)	0.0	20.0		0.0	20.0	20.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	
Act Effct Green (s)	30.2	30.2		42.2	42.2	42.2	18.5	48.5		12.5	42.5	
Actuated g/C Ratio	0.22	0.22		0.30	0.30	0.30	0.13	0.35		0.09	0.30	
v/c Ratio	1.17	0.84		1.28	1.02	1.02	1.23	1.22		1.16	1.09	
Control Delay	168.1	62.7		182.9	81.6	65.3	170.6	147.1		176.4	101.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	168.1	62.7		182.9	81.6	65.3	170.6	147.1		176.4	101.1	
LOS	F	E		F	F	E	F	F		F	F	
Approach Delay		91.7			97.0			153.5			111.5	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~241	289		~481	~555	~470	~321	~871		~198	~615	
Queue Length 95th (ft)	#439	#369		#701	#693	#719	#440	#1013		#355	#756	
Internal Link Dist (ft)		1797			1395			2048			1708	
Turn Bay Length (ft)	250			800			300			150		
Base Capacity (vph)	207	756		359	1066	704	453	1212		158	1057	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	1.17	0.84		1.28	1.02	1.02	1.23	1.22		1.16	1.09	

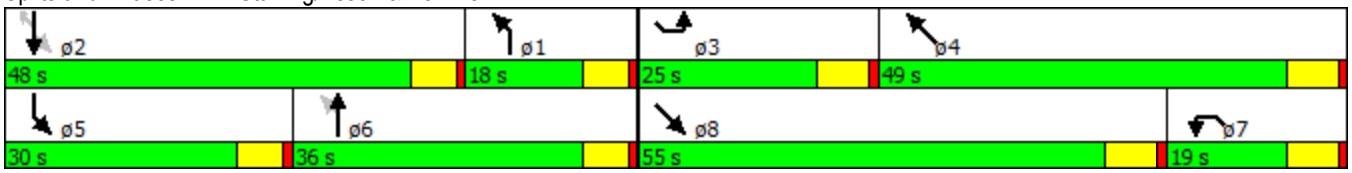
Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.28			
Intersection Signal Delay: 116.9		Intersection LOS: F	
Intersection Capacity Utilization 108.4%		ICU Level of Service G	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

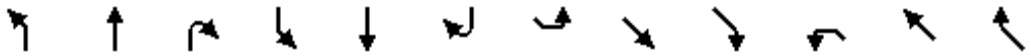
Queue shown is maximum after two cycles.

Splits and Phases: 2: Starring/Essen & Perkins



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	0	2547	575	496	1535	0	17	0	701	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		0	0		800	0		0
Storage Lanes	1		0	2		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.86	0.86	0.97	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt		0.972							0.850			
Flt Protected				0.950			0.950	0.950				
Satd. Flow (prot)	0	6228	0	3433	3539	0	1681	1681	1583	0	0	0
Flt Permitted				0.950			0.950	0.950				
Satd. Flow (perm)	0	6228	0	3433	3539	0	1681	1681	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		80							245			
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		721			409			1012			1106	
Travel Time (s)		10.9			6.2			23.0			25.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	2768	625	539	1668	0	18	0	762	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	0	3393	0	539	1668	0	9	9	762	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2		1	1	0			
Detector Template							Left					
Leading Detector (ft)		290		45	290		20	45	0			
Trailing Detector (ft)		284		0	284		0	0	0			
Detector 1 Position(ft)		-6		0	-6		0	0	0			
Detector 1 Size(ft)		51		45	51		20	45	20			
Detector 1 Type		Call		Cl+Ex	Call		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Queue (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Delay (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA		Prot	NA		Perm	NA	Free			
Protected Phases		6		5	5 6			8				
Permitted Phases							8		Free			
Detector Phase		6		5	5 6		8	8				

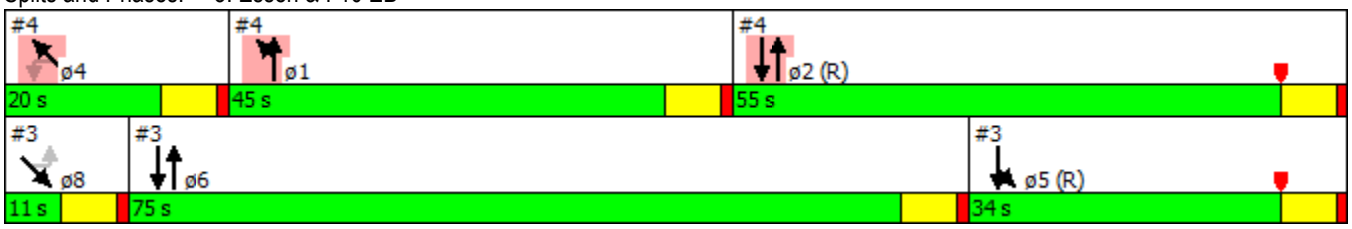
Lane Group	ø1	ø2	ø4
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	1	2	4
Permitted Phases			
Detector Phase			



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)		10.0		3.0			3.0	3.0				
Minimum Split (s)		16.0		9.0			9.0	9.0				
Total Split (s)		75.0		34.0			11.0	11.0				
Total Split (%)		62.5%		28.3%			9.2%	9.2%				
Maximum Green (s)		69.0		28.0			5.0	5.0				
Yellow Time (s)		5.0		5.0			5.0	5.0				
All-Red Time (s)		1.0		1.0			1.0	1.0				
Lost Time Adjust (s)		0.0		0.0			0.0	0.0				
Total Lost Time (s)		6.0		6.0			6.0	6.0				
Lead/Lag		Lag					Lead	Lead				
Lead-Lag Optimize?		Yes					Yes	Yes				
Vehicle Extension (s)		4.0		2.5			2.0	2.0				
Minimum Gap (s)		2.0		0.2			0.2	0.2				
Time Before Reduce (s)		10.0		0.0			0.0	0.0				
Time To Reduce (s)		20.0		0.0			0.0	0.0				
Recall Mode		Max		C-Max			Max	Max				
Act Effct Green (s)		69.0		28.0	103.0		5.0	5.0	120.0			
Actuated g/C Ratio		0.58		0.23	0.86		0.04	0.04	1.00			
v/c Ratio		0.94		0.67	0.55		0.13	0.13	0.48			
Control Delay		14.6		19.3	9.4		59.6	59.6	1.0			
Queue Delay		2.3		0.0	1.0		0.0	0.0	0.0			
Total Delay		16.9		19.3	10.3		59.6	59.6	1.0			
LOS		B		B	B		E	E	A			
Approach Delay		16.9			12.5			2.4				
Approach LOS		B			B			A				
Queue Length 50th (ft)		535		136	176		7	7	0			
Queue Length 95th (ft)		524		174	250		26	26	0			
Internal Link Dist (ft)		641			329			932			1026	
Turn Bay Length (ft)									800			
Base Capacity (vph)		3615		801	3037		70	70	1583			
Starvation Cap Reductn		138		0	996		0	0	0			
Spillback Cap Reductn		81		0	0		0	0	0			
Storage Cap Reductn		0		0	0		0	0	0			
Reduced v/c Ratio		0.98		0.67	0.82		0.13	0.13	0.48			

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 39 (33%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 13.6		Intersection LOS: B	
Intersection Capacity Utilization 79.0%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Essen & I-10 EB



Lane Group	ø1	ø2	ø4
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	45.0	55.0	20.0
Total Split (%)	38%	46%	17%
Maximum Green (s)	39.0	49.0	14.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag		Lead
Lead-Lag Optimize?			
Vehicle Extension (s)	2.5	4.0	4.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	Max	C-Max	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	832	1732	0	0	1821	74	0	0	0	210	0	382
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	550		200	0		0	750		0
Storage Lanes	2		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.86	0.86	1.00	1.00	1.00	0.95	0.95	1.00
Frt					0.994							0.850
Flt Protected	0.950									0.950	0.950	
Satd. Flow (prot)	3433	3539	0	0	6369	0	0	0	0	1681	1681	1583
Flt Permitted	0.950									0.950	0.950	
Satd. Flow (perm)	3433	3539	0	0	6369	0	0	0	0	1681	1681	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					8							245
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		409			805			936			1390	
Travel Time (s)		6.2			12.2			21.3			31.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	904	1883	0	0	1979	80	0	0	0	228	0	415
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	904	1883	0	0	2059	0	0	0	0	114	114	415
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			20			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2					1	1	0
Detector Template										Left		
Leading Detector (ft)	45	290			290					20	45	0
Trailing Detector (ft)	0	284			284					0	0	0
Detector 1 Position(ft)	0	-6			-6					0	0	0
Detector 1 Size(ft)	45	51			51					20	45	20
Detector 1 Type	Cl+Ex	Call			Call					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA			NA					Perm	NA	Free
Protected Phases	1	1 2			2						4	
Permitted Phases										4		Free
Detector Phase	1	1 2			2					4	4	

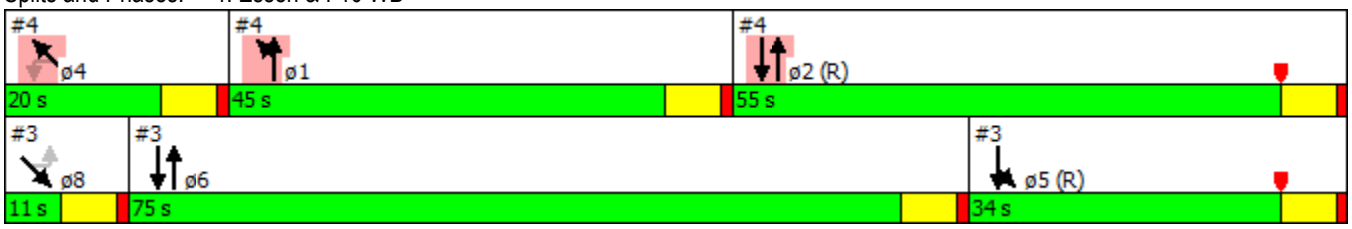
Lane Group	ø5	ø6	ø8
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	5	6	8
Permitted Phases			
Detector Phase			

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0				10.0					3.0	3.0	
Minimum Split (s)	9.0				16.0					9.0	9.0	
Total Split (s)	45.0				55.0					20.0	20.0	
Total Split (%)	37.5%				45.8%					16.7%	16.7%	
Maximum Green (s)	39.0				49.0					14.0	14.0	
Yellow Time (s)	5.0				5.0					5.0	5.0	
All-Red Time (s)	1.0				1.0					1.0	1.0	
Lost Time Adjust (s)	0.0				0.0					0.0	0.0	
Total Lost Time (s)	6.0				6.0					6.0	6.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5				4.0					4.0	4.0	
Minimum Gap (s)	0.2				2.0					0.2	0.2	
Time Before Reduce (s)	0.0				10.0					0.0	0.0	
Time To Reduce (s)	0.0				20.0					0.0	0.0	
Recall Mode	Max				C-Max					Max	Max	
Act Effct Green (s)	39.0	94.0			49.0					14.0	14.0	120.0
Actuated g/C Ratio	0.32	0.78			0.41					0.12	0.12	1.00
v/c Ratio	0.81	0.68			0.79					0.58	0.58	0.26
Control Delay	32.3	3.4			35.5					63.0	63.0	0.4
Queue Delay	6.3	5.5			0.0					0.0	0.0	0.0
Total Delay	38.6	8.9			35.5					63.0	63.0	0.4
LOS	D	A			D					E	E	A
Approach Delay		18.6			35.5						22.6	
Approach LOS		B			D						C	
Queue Length 50th (ft)	236	4			462					89	89	0
Queue Length 95th (ft)	m285	m4			481					155	155	0
Internal Link Dist (ft)		329			725			856			1310	
Turn Bay Length (ft)										750		
Base Capacity (vph)	1115	2772			2605					196	196	1583
Starvation Cap Reductn	167	827			0					0	0	0
Spillback Cap Reductn	0	25			0					0	0	11
Storage Cap Reductn	0	0			0					0	0	0
Reduced v/c Ratio	0.95	0.97			0.79					0.58	0.58	0.26

Intersection Summary

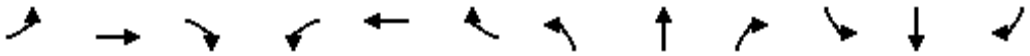
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 39 (33%), Referenced to phase 2:NBSB and 5:, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 25.4 Intersection LOS: C
Intersection Capacity Utilization 79.0% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Essen & I-10 WB

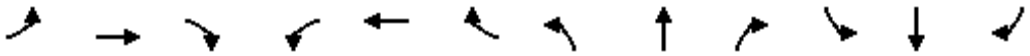


Lane Group	ø5	ø6	ø8
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	34.0	75.0	11.0
Total Split (%)	28%	63%	9%
Maximum Green (s)	28.0	69.0	5.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lead
Lead-Lag Optimize?		Yes	Yes
Vehicle Extension (s)	2.5	4.0	2.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	C-Max	Max	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	221	1	169	105	0	370	121	2406	51	130	1918	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	300		0	150		200	200		0
Storage Lanes	2		0	2		1	1		1	1		0
Taper Length (ft)	25			25			100			50		
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Frt		0.851				0.850			0.850		0.987	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	1585	0	3433	1863	1583	1770	5085	1583	1770	5019	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1585	0	3433	1863	1583	1770	5085	1583	1770	5019	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		184									19	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1095			896			1088			484	
Travel Time (s)		24.9			20.4			16.5			7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	240	1	184	114	0	402	132	2615	55	141	2085	190
Shared Lane Traffic (%)												
Lane Group Flow (vph)	240	185	0	114	0	402	132	2615	55	141	2275	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left		Right			Right			
Leading Detector (ft)	45	45		20	45	20	45	290	20	45	256	
Trailing Detector (ft)	0	0		0	0	0	0	284	0	0	250	
Detector 1 Position(ft)	0	0		0	0	0	0	-6	0	0	-6	
Detector 1 Size(ft)	45	45		20	45	20	45	51	20	45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			250	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot		Free	Prot	NA	pt+ov	Prot	NA	
Protected Phases	3	8		7	4		1	6	6 7	5	2	
Permitted Phases						Free						
Detector Phase	3	8		7	4		1	6	6 7	5	2	

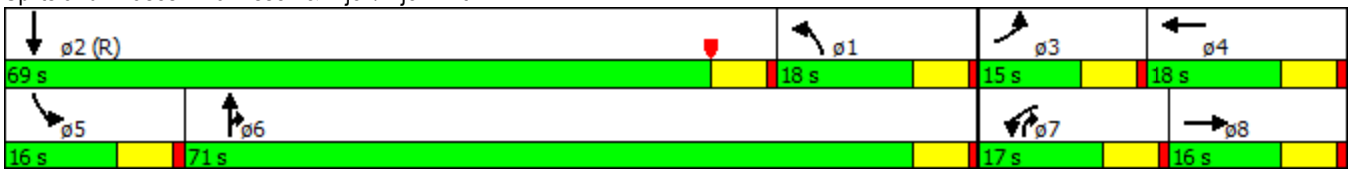


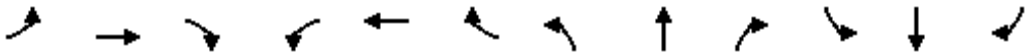
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	5.0		4.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	10.0	11.0		10.0	11.0		11.0	21.0		11.0	21.0	
Total Split (s)	15.0	16.0		17.0	18.0		18.0	71.0		16.0	69.0	
Total Split (%)	12.5%	13.3%		14.2%	15.0%		15.0%	59.2%		13.3%	57.5%	
Maximum Green (s)	9.0	10.0		11.0	12.0		12.0	65.0		10.0	63.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	2.0		3.0	2.0		2.0	2.5		2.0	2.0	
Minimum Gap (s)	3.0	0.2		3.0	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	21.7	6.6		9.2		120.0	14.9	70.3	85.4	10.0	65.4	
Actuated g/C Ratio	0.18	0.06		0.08		1.00	0.12	0.59	0.71	0.08	0.54	
v/c Ratio	0.39	0.71		0.44		0.25	0.60	0.88	0.05	0.96	0.83	
Control Delay	44.5	23.3		57.9		0.4	52.8	21.2	8.4	128.8	12.8	
Queue Delay	0.0	0.0		0.0		0.0	0.0	0.3	0.0	0.0	0.2	
Total Delay	44.5	23.3		57.9		0.4	52.8	21.4	8.4	128.8	12.9	
LOS	D	C		E		A	D	C	A	F	B	
Approach Delay		35.3						22.6			19.7	
Approach LOS		D						C			B	
Queue Length 50th (ft)	86	1		44		0	101	411	17	114	139	
Queue Length 95th (ft)	118	72		73		0	m117	m829	m18	#239	127	
Internal Link Dist (ft)		1015			816			1008			404	
Turn Bay Length (ft)	200			300			150		200	200		
Base Capacity (vph)	621	300		314		1583	219	2978	1151	147	2747	
Starvation Cap Reductn	0	0		0		0	0	0	0	0	60	
Spillback Cap Reductn	0	0		0		18	0	58	0	0	0	
Storage Cap Reductn	0	0		0		0	0	0	0	0	0	
Reduced v/c Ratio	0.39	0.62		0.36		0.26	0.60	0.90	0.05	0.96	0.85	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 89 (74%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 21.6		Intersection LOS: C	
Intersection Capacity Utilization 87.5%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

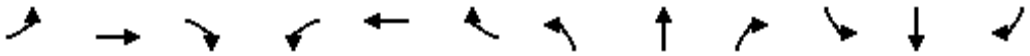
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Essen & Dijon/Dijon Ext





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	5	6	73	5	238	1	2871	126	80	2144	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	100		0	350		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			150		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.964				0.850		0.994			0.999	
Flt Protected		0.974			0.955		0.950			0.950		
Satd. Flow (prot)	0	1749	0	0	1779	1583	1770	5055	0	1770	5080	0
Flt Permitted		0.820			0.720		0.950			0.950		
Satd. Flow (perm)	0	1472	0	0	1341	1583	1770	5055	0	1770	5080	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		7						12			1	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		496			1336			484			721	
Travel Time (s)		11.3			30.4			7.3			10.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	5	7	79	5	259	1	3121	137	87	2330	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	26	0	0	84	259	1	3258	0	87	2343	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45	45	45	141		45	290	
Trailing Detector (ft)	0	0		0	0	0	0	135		0	284	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	20	45		20	45	45	45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								135			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases		8			4	4 5	1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4	4 5	1	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		4.0	15.0		3.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	21.0		9.0	21.0	
Total Split (s)	20.0	20.0		20.0	20.0		11.0	87.0		13.0	89.0	
Total Split (%)	16.7%	16.7%		16.7%	16.7%		9.2%	72.5%		10.8%	74.2%	
Maximum Green (s)	14.0	14.0		14.0	14.0		5.0	81.0		7.0	83.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		3.0	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)		14.0			14.0	27.0	5.4	81.0		7.0	91.8	
Actuated g/C Ratio		0.12			0.12	0.22	0.04	0.68		0.06	0.76	
v/c Ratio		0.15			0.54	0.73	0.01	0.95		0.84	0.60	
Control Delay		40.2			63.6	56.2	50.0	14.0		108.7	7.6	
Queue Delay		0.0			0.0	0.0	0.0	4.5		0.0	0.0	
Total Delay		40.2			63.6	56.2	50.0	18.5		108.7	7.6	
LOS		D			E	E	D	B		F	A	
Approach Delay		40.3			58.0			18.5			11.3	
Approach LOS		D			E			B			B	
Queue Length 50th (ft)		13			62	187	1	115		64	478	
Queue Length 95th (ft)		42			117	#300	m0	195		#163	473	
Internal Link Dist (ft)		416			1256			404			641	
Turn Bay Length (ft)						100	100			350		
Base Capacity (vph)		177			156	356	80	3416		103	3886	
Starvation Cap Reductn		0			0	0	0	0		0	78	
Spillback Cap Reductn		0			0	0	0	138		0	87	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.15			0.54	0.73	0.01	0.99		0.84	0.62	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 114 (95%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 17.9		Intersection LOS: B	
Intersection Capacity Utilization 91.3%		ICU Level of Service F	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Essen & Essen Park

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	561	315	1942	273	136	1334
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		0	150	
Storage Lanes	2	1		0	1	
Taper Length (ft)	25				100	
Lane Util. Factor	0.97	1.00	0.91	0.91	1.00	0.95
Frt		0.850	0.981			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	4989	0	1770	3539
Flt Permitted	0.950				0.056	
Satd. Flow (perm)	3433	1583	4989	0	104	3539
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			33			
Link Speed (mph)	30		45			45
Link Distance (ft)	1306		805			993
Travel Time (s)	29.7		12.2			15.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	610	342	2111	297	148	1450
Shared Lane Traffic (%)						
Lane Group Flow (vph)	610	342	2408	0	148	1450
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	52		20			25
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2		1	2
Detector Template						
Leading Detector (ft)	45	45	290		45	290
Trailing Detector (ft)	0	0	284		0	284
Detector 1 Position(ft)	0	0	-6		0	-6
Detector 1 Size(ft)	45	45	51		45	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			284			284
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm	pt+ov	NA		pm+pt	NA
Protected Phases		5 8	6		5	2
Permitted Phases	8				2	
Detector Phase	8	5 8	6		5	2

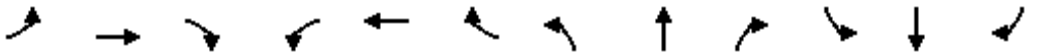
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	4.0		15.0		5.0	15.0
Minimum Split (s)	20.0		21.0		11.0	21.0
Total Split (s)	31.0		70.0		19.0	89.0
Total Split (%)	25.8%		58.3%		15.8%	74.2%
Maximum Green (s)	27.0		64.0		13.0	83.0
Yellow Time (s)	3.5		5.0		5.0	5.0
All-Red Time (s)	0.5		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.0		6.0		6.0	6.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		5.0		2.0	5.0
Minimum Gap (s)	3.0		3.0		0.2	3.0
Time Before Reduce (s)	0.0		15.0		0.0	15.0
Time To Reduce (s)	0.0		15.0		0.0	15.0
Recall Mode	None		C-Min		None	Min
Walk Time (s)	5.0					
Flash Dont Walk (s)	11.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	25.4	42.4	65.6		84.6	84.6
Actuated g/C Ratio	0.21	0.35	0.55		0.70	0.70
v/c Ratio	0.84	0.61	0.88		0.58	0.58
Control Delay	56.5	37.2	13.4		37.8	5.6
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	56.5	37.2	13.4		37.8	5.6
LOS	E	D	B		D	A
Approach Delay	49.5		13.4			8.6
Approach LOS	D		B			A
Queue Length 50th (ft)	230	212	93		64	202
Queue Length 95th (ft)	298	313	427		m118	178
Internal Link Dist (ft)	1226		725			913
Turn Bay Length (ft)		100			150	
Base Capacity (vph)	772	580	2740		253	2493
Starvation Cap Reductn	0	0	5		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.79	0.59	0.88		0.58	0.58

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 19 (16%), Referenced to phase 6:NBT, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 18.8	Intersection LOS: B
Intersection Capacity Utilization 80.5%	ICU Level of Service D

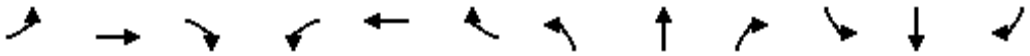
Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 17: Essen & United Plaza South



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1019	68	171	156	33	325	33	1233	52	229	1662	302
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	425		50	280		280	150		0	550		300
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	100			200			25			100		
Lane Util. Factor	0.91	0.91	1.00	0.95	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Frt			0.850			0.850		0.994				0.850
Flt Protected	0.950	0.961		0.950	0.968		0.950			0.950		
Satd. Flow (prot)	3221	1629	1583	1681	1713	1583	1770	5055	0	1770	5085	1583
Flt Permitted	0.950	0.961		0.950	0.968		0.950			0.950		
Satd. Flow (perm)	3221	1629	1583	1681	1713	1583	1770	5055	0	1770	5085	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								5				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1908			1396			1335			1088	
Travel Time (s)		43.4			31.7			20.2			16.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1108	74	186	170	36	353	36	1340	57	249	1807	328
Shared Lane Traffic (%)	29%			40%								
Lane Group Flow (vph)	787	395	186	102	104	353	36	1397	0	249	1807	328
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		45			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	0	1	1	1	1	2		1	2	2
Detector Template												
Leading Detector (ft)	45	45	0	45	45	45	45	290		45	256	45
Trailing Detector (ft)	0	0	0	0	0	0	0	284		0	284	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	-6		0	-6	-6
Detector 1 Size(ft)	45	45	20	45	45	45	45	51		45	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Call
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	0
Detector 2 Size(ft)								6			-28	45
Detector 2 Type								Extend			Extend	Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	0.0
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4	4 5	1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4	4 5	1	6		5	2	2 8

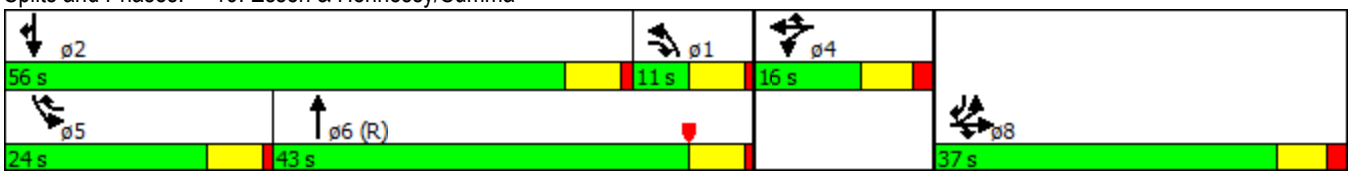


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.5	14.5		14.5	14.5		9.0	21.0		9.0	21.0	
Total Split (s)	37.0	37.0		16.0	16.0		11.0	43.0		24.0	56.0	
Total Split (%)	30.8%	30.8%		13.3%	13.3%		9.2%	35.8%		20.0%	46.7%	
Maximum Green (s)	30.5	30.5		9.5	9.5		5.0	37.0		18.0	50.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	30.5	30.5	36.2	9.5	9.5	27.0	6.2	37.0		18.0	48.8	85.8
Actuated g/C Ratio	0.25	0.25	0.30	0.08	0.08	0.22	0.05	0.31		0.15	0.41	0.72
v/c Ratio	0.96	0.95	0.39	0.77	0.77	0.99	0.40	0.89		0.94	0.87	0.29
Control Delay	68.0	78.8	28.7	88.6	88.6	77.6	48.1	34.1		97.9	30.7	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	68.0	78.8	28.7	88.6	88.6	77.6	48.1	34.1		97.9	30.7	9.9
LOS	E	E	C	F	F	E	D	C		F	C	A
Approach Delay		65.8			81.6			34.5			34.9	
Approach LOS		E			F			C			C	
Queue Length 50th (ft)	331	331	81	83	84	163	29	418		193	228	91
Queue Length 95th (ft)	#466	#549	132	#182	#183	#357	m56	#312		m#290	353	m159
Internal Link Dist (ft)		1828			1316			1255			1008	
Turn Bay Length (ft)	425		50	280		280	150			550		300
Base Capacity (vph)	818	414	477	133	135	356	90	1562		265	2118	1147
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.96	0.95	0.39	0.77	0.77	0.99	0.40	0.89		0.94	0.85	0.29

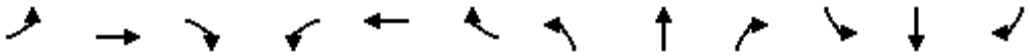
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 83 (69%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 46.7		Intersection LOS: D	
Intersection Capacity Utilization 80.9%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Essen & Hennessy/Summa



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	166	148	224	50	59	53	76	1099	66	95	1816	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	150		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.910			0.929			0.991			0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1695	0	1770	1730	0	1770	5040	0	1770	5055	0
Flt Permitted	0.643			0.150			0.087			0.186		
Satd. Flow (perm)	1198	1695	0	279	1730	0	162	5040	0	346	5055	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		67			40			10			7	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1062			1416			1475			1335	
Travel Time (s)		24.1			32.2			22.3			20.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	180	161	243	54	64	58	83	1195	72	103	1974	87
Shared Lane Traffic (%)												
Lane Group Flow (vph)	180	404	0	54	122	0	83	1267	0	103	2061	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template												
Leading Detector (ft)	45	45		45	45		45	290		45	290	
Trailing Detector (ft)	0	0		0	0		0	284		0	284	
Detector 1 Position(ft)	0	0		0	0		0	-6		0	-6	
Detector 1 Size(ft)	45	45		45	45		45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		1	6		5	2	

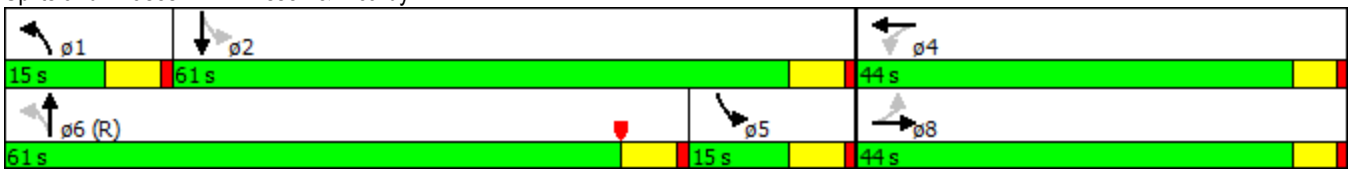


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		2.0	15.0		3.0	15.0	
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	21.0		9.0	21.0	
Total Split (s)	44.0	44.0		44.0	44.0		15.0	61.0		15.0	61.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		12.5%	50.8%		12.5%	50.8%	
Maximum Green (s)	39.0	39.0		39.0	39.0		9.0	55.0		9.0	55.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	29.6	29.6		29.6	29.6		53.9	53.9		67.9	67.9	
Actuated g/C Ratio	0.25	0.25		0.25	0.25		0.45	0.45		0.57	0.57	
v/c Ratio	0.61	0.86		0.79	0.27		0.47	0.56		0.24	0.72	
Control Delay	47.8	53.5		102.8	23.7		32.0	27.3		10.6	11.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	47.8	53.5		102.8	23.7		32.0	27.3		10.6	11.5	
LOS	D	D		F	C		C	C		B	B	
Approach Delay		51.7			48.0			27.6			11.4	
Approach LOS		D			D			C			B	
Queue Length 50th (ft)	124	254		39	50		37	262		25	186	
Queue Length 95th (ft)	182	344		#101	92		81	362		m17	111	
Internal Link Dist (ft)		982			1336			1395			1255	
Turn Bay Length (ft)	225			150			150			150		
Base Capacity (vph)	389	596		90	589		193	2492		426	2863	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.46	0.68		0.60	0.21		0.43	0.51		0.24	0.72	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 79 (66%), Referenced to phase 6:NBTL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 23.6		Intersection LOS: C	
Intersection Capacity Utilization 84.3%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Essen & Picardy



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	448	157	2377	11	49	1119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	125		125	125	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.88	0.91	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2787	5085	1583	1770	3539
Flt Permitted	0.950				0.058	
Satd. Flow (perm)	1770	2787	5085	1583	108	3539
Right Turn on Red		Yes		No		
Satd. Flow (RTOR)		149				
Link Speed (mph)	30		45			45
Link Distance (ft)	1179		993			571
Travel Time (s)	26.8		15.0			8.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	487	171	2584	12	53	1216
Shared Lane Traffic (%)						
Lane Group Flow (vph)	487	171	2584	12	53	1216
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	42		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template						
Leading Detector (ft)	45	45	290	45	45	290
Trailing Detector (ft)	0	0	284	0	-6	284
Detector 1 Position(ft)	0	0	-6	0	-6	-6
Detector 1 Size(ft)	45	45	51	45	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			284			284
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	pt+ov	pm+pt	NA
Protected Phases	4		6	6 4	5	2
Permitted Phases		4			2	
Detector Phase	4	4	6	6 4	5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	5.0	5.0	15.0		3.0	15.0
Minimum Split (s)	11.0	11.0	21.0		9.0	21.0
Total Split (s)	43.0	43.0	66.0		11.0	77.0
Total Split (%)	35.8%	35.8%	55.0%		9.2%	64.2%
Maximum Green (s)	37.0	37.0	60.0		5.0	71.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0
Recall Mode	None	None	C-Min		None	Min
Act Effct Green (s)	35.1	35.1	64.0	106.3	72.9	72.9
Actuated g/C Ratio	0.29	0.29	0.53	0.89	0.61	0.61
v/c Ratio	0.94	0.19	0.95	0.01	0.39	0.57
Control Delay	69.1	7.2	21.2	0.3	24.1	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	69.1	7.2	21.2	0.3	24.1	9.0
LOS	E	A	C	A	C	A
Approach Delay	53.0		21.1			9.6
Approach LOS	D		C			A
Queue Length 50th (ft)	359	6	~667	0	10	185
Queue Length 95th (ft)	#555	35	#853	m0	m31	58
Internal Link Dist (ft)	1099		913			491
Turn Bay Length (ft)		125		125	125	
Base Capacity (vph)	545	962	2712	1407	136	2149
Starvation Cap Reductn	0	0	0	0	0	176
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.18	0.95	0.01	0.39	0.62

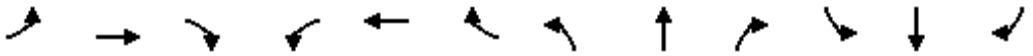
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 31 (26%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 22.5		Intersection LOS: C	
Intersection Capacity Utilization 80.7%		ICU Level of Service D	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

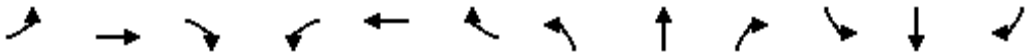
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 28: Essen & United Plaza North



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	0	19	105	1	367	15	2505	14	34	1044	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		100	175		0	150		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	0.95
Frt		0.850				0.850		0.999			0.995	
Flt Protected	0.950				0.953		0.950			0.950		
Satd. Flow (prot)	1770	1583	0	0	1775	1583	1770	5080	0	1770	3522	0
Flt Permitted	0.656				0.713		0.240			0.061		
Satd. Flow (perm)	1222	1583	0	0	1328	1583	447	5080	0	114	3522	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		191						1			6	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		757			843			571			472	
Travel Time (s)		17.2			19.2			8.7			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	0	21	114	1	399	16	2723	15	37	1135	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	65	21	0	0	115	399	16	2738	0	37	1177	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	3	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290		45	390	
Trailing Detector (ft)	0	0		0	0	0	0	284		0	284	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	45	45		20	45	45	45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Detector 3 Position(ft)											384	
Detector 3 Size(ft)											6	
Detector 3 Type											Cl+Ex	
Detector 3 Channel												



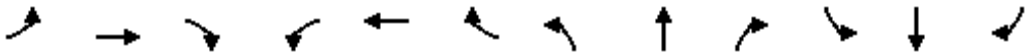
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 3 Extend (s)											0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		8		7	4	4 5	1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4	4 5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	31.0		11.0	31.0	
Total Split (s)	15.0	15.0		11.0	26.0		11.0	72.0		22.0	83.0	
Total Split (%)	12.5%	12.5%		9.2%	21.7%		9.2%	60.0%		18.3%	69.2%	
Maximum Green (s)	9.0	9.0		5.0	20.0		5.0	66.0		16.0	77.0	
Yellow Time (s)	4.5	4.5		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		2.0	2.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag		Lead			Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	3.0		0.2	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	20.2	20.2			20.2	38.7	69.3	69.3		83.3	83.3	
Actuated g/C Ratio	0.17	0.17			0.17	0.32	0.58	0.58		0.69	0.69	
v/c Ratio	0.32	0.05			0.52	0.78	0.05	0.93		0.15	0.48	
Control Delay	48.9	0.2			54.7	48.2	2.0	9.3		12.5	6.5	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.1	
Total Delay	48.9	0.2			54.7	48.2	2.0	9.3		12.5	6.6	
LOS	D	A			D	D	A	A		B	A	
Approach Delay		37.0			49.7			9.2			6.8	
Approach LOS		D			D			A			A	
Queue Length 50th (ft)	45	0			82	273	1	66		4	73	
Queue Length 95th (ft)	90	0			146	388	m1	m#135		m29	191	
Internal Link Dist (ft)		677			763			491			392	
Turn Bay Length (ft)	75					100	175			150		
Base Capacity (vph)	205	425			223	557	337	2935		300	2514	
Starvation Cap Reductn	0	0			0	0	0	0		0	205	
Spillback Cap Reductn	0	0			0	0	0	0		0	13	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.32	0.05			0.52	0.72	0.05	0.93		0.12	0.51	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 28 (23%), Referenced to phase 2:SBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	

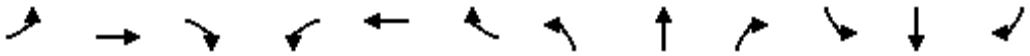
Intersection Signal Delay: 13.6	Intersection LOS: B
Intersection Capacity Utilization 90.6%	ICU Level of Service E
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 29: Essen & Sholar/Archives



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	209	0	42	0	0	0	0	1701	1232	0	1075	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.949							0.850			
Flt Protected	0.950	0.968										
Satd. Flow (prot)	1681	1626	0	0	0	0	0	3539	1583	0	3539	0
Flt Permitted	0.950	0.968										
Satd. Flow (perm)	1681	1626	0	0	0	0	0	3539	1583	0	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36							454			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		995			508			472			1384	
Travel Time (s)		22.6			11.5			7.2			21.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	227	0	46	0	0	0	0	1849	1339	0	1168	0
Shared Lane Traffic (%)	39%											
Lane Group Flow (vph)	138	135	0	0	0	0	0	1849	1339	0	1168	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1						2	1		2	
Detector Template												
Leading Detector (ft)	45	45						290	45		290	
Trailing Detector (ft)	0	0						284	-6		284	
Detector 1 Position(ft)	0	0						-6	-6		-6	
Detector 1 Size(ft)	45	45						51	51		51	
Detector 1 Type	Cl+Ex	Cl+Ex						Call	Cl+Ex		Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0		0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA						NA	Free		NA	
Protected Phases		8						6			2	
Permitted Phases	8								Free			
Detector Phase	8	8						6			2	

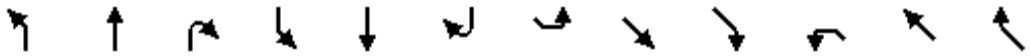


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	10.0	10.0						25.0			25.0	
Minimum Split (s)	17.0	17.0						32.0			32.0	
Total Split (s)	27.0	27.0						93.0			93.0	
Total Split (%)	22.5%	22.5%						77.5%			77.5%	
Maximum Green (s)	20.0	20.0						86.0			86.0	
Yellow Time (s)	5.0	5.0						5.0			5.0	
All-Red Time (s)	2.0	2.0						2.0			2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	7.0	7.0						7.0			7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5						5.0			5.0	
Minimum Gap (s)	0.2	0.2						3.0			3.0	
Time Before Reduce (s)	0.0	0.0						15.0			15.0	
Time To Reduce (s)	0.0	0.0						15.0			15.0	
Recall Mode	None	None						C-Max			Max	
Act Effct Green (s)	14.8	14.8						91.2	120.0		91.2	
Actuated g/C Ratio	0.12	0.12						0.76	1.00		0.76	
v/c Ratio	0.67	0.58						0.69	0.85		0.43	
Control Delay	65.4	45.8						2.8	14.2		6.1	
Queue Delay	0.0	0.0						0.3	0.0		0.0	
Total Delay	65.4	45.8						3.1	14.2		6.1	
LOS	E	D						A	B		A	
Approach Delay		55.7						7.8			6.1	
Approach LOS		E						A			A	
Queue Length 50th (ft)	109	76						100	862		144	
Queue Length 95th (ft)	173	141						m99	m962		217	
Internal Link Dist (ft)		915			428			392			1304	
Turn Bay Length (ft)	400											
Base Capacity (vph)	280	301						2690	1583		2690	
Starvation Cap Reductn	0	0						288	0		0	
Spillback Cap Reductn	0	0						0	0		0	
Storage Cap Reductn	0	0						0	0		0	
Reduced v/c Ratio	0.49	0.45						0.77	0.85		0.43	

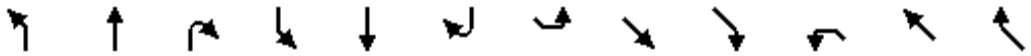
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 46 (38%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 10.2		Intersection LOS: B	
Intersection Capacity Utilization 67.0%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 32: Essen & I-12 EB

M.18 2017 BUILD AM – ESSEN LANE



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	279	711	41	242	536	449	540	499	34	75	972	257
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	800		0	300		0	150		0
Storage Lanes	1		0	1		1	2		0	1		0
Taper Length (ft)	150			25			200			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Frt		0.992				0.850		0.990			0.969	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3511	0	1770	3539	1583	3433	3504	0	1770	3429	0
Flt Permitted	0.185			0.108			0.950			0.950		
Satd. Flow (perm)	345	3511	0	201	3539	1583	3433	3504	0	1770	3429	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3				403		4			19	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1877			1475			2128			1788	
Travel Time (s)		28.4			22.3			32.2			27.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	303	773	45	263	583	488	587	542	37	82	1057	279
Shared Lane Traffic (%)												
Lane Group Flow (vph)	303	818	0	263	583	488	587	579	0	82	1336	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	0	1	1		1	1	
Detector Template												
Leading Detector (ft)	45	162		45	162	0	45	45		45	45	
Trailing Detector (ft)	0	156		0	156	0	0	0		0	0	
Detector 1 Position(ft)	0	-6		0	-6	0	0	0		0	0	
Detector 1 Size(ft)	45	51		45	51	50	45	45		45	45	
Detector 1 Type	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2		2						
Detector Phase	1	6		5	2	2	3	8		7	4	



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	5.0	10.0		3.0	10.0	
Minimum Split (s)	8.8	15.8		8.8	15.8	15.8	11.5	16.5		9.5	16.5	
Total Split (s)	30.8	40.8		30.8	45.8	45.8	41.5	66.5		21.5	56.5	
Total Split (%)	17.6%	23.4%		17.6%	26.2%	26.2%	23.8%	38.1%		12.3%	32.4%	
Maximum Green (s)	25.0	35.0		25.0	40.0	40.0	35.0	60.0		15.0	50.0	
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8	5.5	5.5		5.5	5.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8		5.8	5.8	5.8	6.5	6.5		6.5	6.5	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	6.0		2.0	6.0	6.0	2.0	6.0		2.0	6.0	
Minimum Gap (s)	0.2	4.0		0.2	4.0	4.0	0.2	4.0		0.2	4.0	
Time Before Reduce (s)	0.0	20.0		0.0	20.0	20.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	
Act Effct Green (s)	61.0	37.2		60.3	36.9	36.9	31.5	37.6		44.0	50.1	
Actuated g/C Ratio	0.37	0.22		0.36	0.22	0.22	0.19	0.23		0.26	0.30	
v/c Ratio	0.92	1.04		0.90	0.75	0.74	0.91	0.73		0.18	1.28	
Control Delay	73.5	105.1		80.6	67.8	18.7	85.1	65.3		51.9	179.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	73.5	105.1		80.6	67.8	18.7	85.1	65.3		51.9	179.1	
LOS	E	F		F	E	B	F	E		D	F	
Approach Delay		96.6			52.4			75.3			171.7	
Approach LOS		F			D			E			F	
Queue Length 50th (ft)	247	~535		238	324	85	328	315		70	~990	
Queue Length 95th (ft)	#436	#656		#411	401	236	#415	374		133	#1183	
Internal Link Dist (ft)		1797			1395			2048			1708	
Turn Bay Length (ft)	250			800			300			150		
Base Capacity (vph)	342	845		310	850	686	721	1265		466	1043	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.89	0.97		0.85	0.69	0.71	0.81	0.46		0.18	1.28	

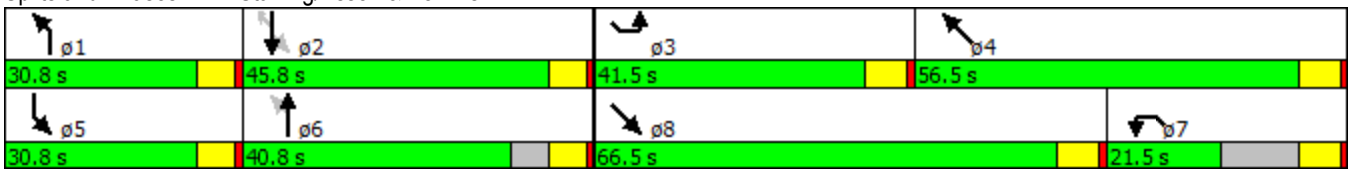
Intersection Summary			
Area Type:	Other		
Cycle Length: 174.6			
Actuated Cycle Length: 166.9			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.28			
Intersection Signal Delay: 101.1		Intersection LOS: F	
Intersection Capacity Utilization 105.3%		ICU Level of Service G	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

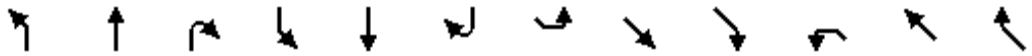
Queue shown is maximum after two cycles.

Splits and Phases: 2: Starring/Essen & Perkins



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	0	1400	269	125	1535	0	52	0	1499	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		0	0		800	0		0
Storage Lanes	1		0	2		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.86	0.86	0.97	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt		0.976							0.850			
Flt Protected				0.950			0.950	0.950				
Satd. Flow (prot)	0	6254	0	3433	3539	0	1681	1681	1583	0	0	0
Flt Permitted				0.950			0.950	0.950				
Satd. Flow (perm)	0	6254	0	3433	3539	0	1681	1681	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		75							245			
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		721			409			1012			1106	
Travel Time (s)		10.9			6.2			23.0			25.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1522	292	136	1668	0	57	0	1629	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	0	1814	0	136	1668	0	28	29	1629	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2		1	1	0			
Detector Template							Left					
Leading Detector (ft)		162		45	162		20	45	0			
Trailing Detector (ft)		156		0	156		0	0	0			
Detector 1 Position(ft)		-6		0	-6		0	0	0			
Detector 1 Size(ft)		51		45	51		20	45	20			
Detector 1 Type		Call		Cl+Ex	Call		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Queue (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Delay (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA		Prot	NA		Perm	NA	Free			
Protected Phases		6		5	5 6			8				
Permitted Phases							8		Free			
Detector Phase		6		5	5 6		8	8				

Lane Group	ø1	ø2	ø4
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	1	2	4
Permitted Phases			
Detector Phase			



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)		10.0		3.0			3.0	3.0				
Minimum Split (s)		16.0		9.0			9.0	9.0				
Total Split (s)		80.0		21.0			19.0	19.0				
Total Split (%)		66.7%		17.5%			15.8%	15.8%				
Maximum Green (s)		74.0		15.0			13.0	13.0				
Yellow Time (s)		5.0		5.0			5.0	5.0				
All-Red Time (s)		1.0		1.0			1.0	1.0				
Lost Time Adjust (s)		0.0		0.0			0.0	0.0				
Total Lost Time (s)		6.0		6.0			6.0	6.0				
Lead/Lag		Lag					Lead	Lead				
Lead-Lag Optimize?		Yes					Yes	Yes				
Vehicle Extension (s)		4.0		2.5			2.0	2.0				
Minimum Gap (s)		2.0		0.2			0.2	0.2				
Time Before Reduce (s)		10.0		0.0			0.0	0.0				
Time To Reduce (s)		20.0		0.0			0.0	0.0				
Recall Mode		None		C-Max			Min	Min				
Act Effct Green (s)		64.2		31.2	101.4		6.6	6.6	120.0			
Actuated g/C Ratio		0.54		0.26	0.84		0.06	0.06	1.00			
v/c Ratio		0.54		0.15	0.56		0.30	0.32	1.03			
Control Delay		10.5		31.3	8.2		62.1	62.6	34.2			
Queue Delay		0.0		0.0	1.0		0.0	0.0	4.9			
Total Delay		10.5		31.3	9.2		62.1	62.6	39.2			
LOS		B		C	A		E	E	D			
Approach Delay		10.5			10.9			40.0				
Approach LOS		B			B			D				
Queue Length 50th (ft)		112		40	220		22	23	~74			
Queue Length 95th (ft)		0		79	331		54	55	#340			
Internal Link Dist (ft)		641			329			932			1026	
Turn Bay Length (ft)									800			
Base Capacity (vph)		3924		891	2961		182	182	1583			
Starvation Cap Reductn		0		0	934		0	0	0			
Spillback Cap Reductn		296		0	47		0	0	21			
Storage Cap Reductn		0		0	0		0	0	0			
Reduced v/c Ratio		0.50		0.15	0.82		0.15	0.16	1.04			

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 22 (18%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.03			
Intersection Signal Delay: 20.0		Intersection LOS: C	
Intersection Capacity Utilization 59.1%		ICU Level of Service B	
Analysis Period (min) 15			

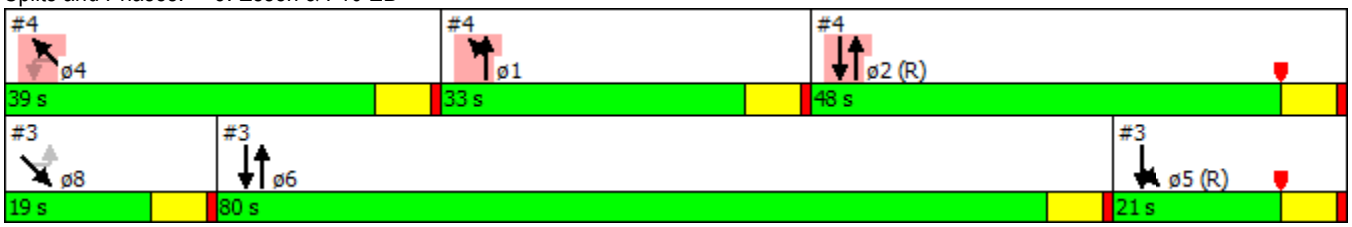
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

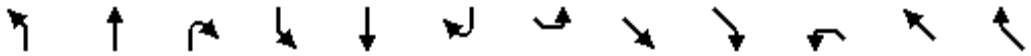
Lane Group	ø1	ø2	ø4
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	33.0	48.0	39.0
Total Split (%)	28%	40%	33%
Maximum Green (s)	27.0	42.0	33.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes
Vehicle Extension (s)	2.5	4.0	4.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	None	C-Max	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

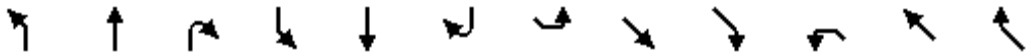
Splits and Phases: 3: Essen & I-10 EB





Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	450	1002	0	0	1170	44	0	0	0	490	0	751
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	550		200	0		0	750		0
Storage Lanes	2		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.86	0.86	1.00	1.00	1.00	0.95	0.95	1.00
Frt					0.995							0.850
Flt Protected	0.950									0.950	0.950	
Satd. Flow (prot)	3433	3539	0	0	6376	0	0	0	0	1681	1681	1583
Flt Permitted	0.950									0.950	0.950	
Satd. Flow (perm)	3433	3539	0	0	6376	0	0	0	0	1681	1681	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7							403
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		409			805			936			1390	
Travel Time (s)		6.2			12.2			21.3			31.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	489	1089	0	0	1272	48	0	0	0	533	0	816
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	489	1089	0	0	1320	0	0	0	0	266	267	816
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			20			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2					1	1	0
Detector Template										Left		
Leading Detector (ft)	45	162			162					20	45	0
Trailing Detector (ft)	0	156			156					0	0	0
Detector 1 Position(ft)	0	-6			-6					0	0	0
Detector 1 Size(ft)	45	51			51					20	45	20
Detector 1 Type	Cl+Ex	Call			Call					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA			NA					Perm	NA	Free
Protected Phases	1	1 2			2						4	
Permitted Phases										4		Free
Detector Phase	1	1 2			2					4	4	

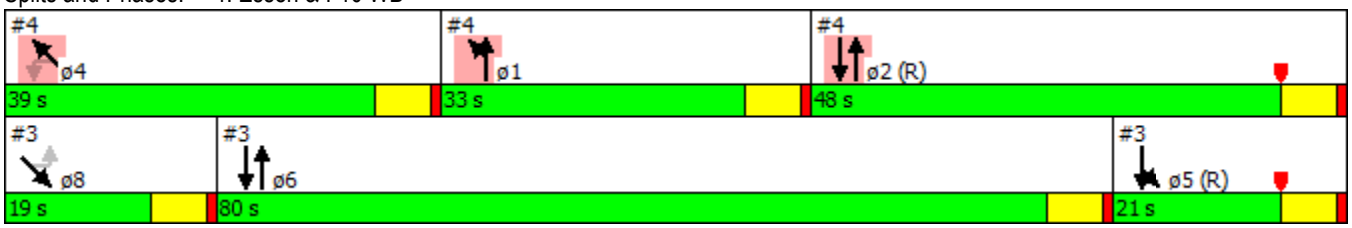
Lane Group	ø5	ø6	ø8
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	5	6	8
Permitted Phases			
Detector Phase			



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0				10.0					3.0	3.0	
Minimum Split (s)	9.0				16.0					9.0	9.0	
Total Split (s)	33.0				48.0					39.0	39.0	
Total Split (%)	27.5%				40.0%					32.5%	32.5%	
Maximum Green (s)	27.0				42.0					33.0	33.0	
Yellow Time (s)	5.0				5.0					5.0	5.0	
All-Red Time (s)	1.0				1.0					1.0	1.0	
Lost Time Adjust (s)	0.0				0.0					0.0	0.0	
Total Lost Time (s)	6.0				6.0					6.0	6.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?	Yes									Yes	Yes	
Vehicle Extension (s)	2.5				4.0					4.0	4.0	
Minimum Gap (s)	0.2				2.0					0.2	0.2	
Time Before Reduce (s)	0.0				10.0					0.0	0.0	
Time To Reduce (s)	0.0				20.0					0.0	0.0	
Recall Mode	None				C-Max					None	None	
Act Effct Green (s)	23.3	82.6			53.3					25.4	25.4	120.0
Actuated g/C Ratio	0.19	0.69			0.44					0.21	0.21	1.00
v/c Ratio	0.74	0.45			0.47					0.75	0.75	0.52
Control Delay	30.2	11.3			24.7					56.8	57.0	1.2
Queue Delay	0.0	0.4			0.0					0.3	0.3	0.0
Total Delay	30.2	11.8			24.7					57.1	57.4	1.2
LOS	C	B			C					E	E	A
Approach Delay		17.5			24.7						23.3	
Approach LOS		B			C						C	
Queue Length 50th (ft)	148	446			204					203	204	0
Queue Length 95th (ft)	189	413			243					283	284	0
Internal Link Dist (ft)		329			725			856			1310	
Turn Bay Length (ft)										750		
Base Capacity (vph)	777	2416			2835					462	462	1583
Starvation Cap Reductn	0	748			0					0	0	0
Spillback Cap Reductn	0	0			0					26	26	0
Storage Cap Reductn	0	0			0					0	0	0
Reduced v/c Ratio	0.63	0.65			0.47					0.61	0.61	0.52

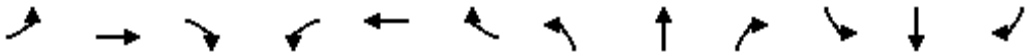
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 22 (18%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.03			
Intersection Signal Delay: 21.6		Intersection LOS: C	
Intersection Capacity Utilization 59.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 4: Essen & I-10 WB

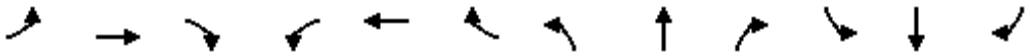


Lane Group	ø5	ø6	ø8
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	21.0	80.0	19.0
Total Split (%)	18%	67%	16%
Maximum Green (s)	15.0	74.0	13.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lead
Lead-Lag Optimize?		Yes	Yes
Vehicle Extension (s)	2.5	4.0	2.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	C-Max	None	Min
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	0	43	142	0	188	38	1515	90	258	2586	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	300		0	150		200	200		0
Storage Lanes	2		0	2		1	1		1	1		0
Taper Length (ft)	25			25			100			50		
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Frt		0.850				0.850			0.850		0.995	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	1583	0	3433	1863	1583	1770	5085	1583	1770	5060	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1583	0	3433	1863	1583	1770	5085	1583	1770	5060	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		191									8	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1120			896			1106			465	
Travel Time (s)		25.5			20.4			16.8			7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	38	0	47	154	0	204	41	1647	98	280	2811	100
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	47	0	154	0	204	41	1647	98	280	2911	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left		Right			Right			
Leading Detector (ft)	45	45		20	45	20	45	162	20	45	162	
Trailing Detector (ft)	0	0		0	0	0	0	156	0	0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6	0	0	-6	
Detector 1 Size(ft)	45	45		20	45	20	45	51	20	45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot		Free	Prot	NA	pt+ov	Prot	NA	
Protected Phases	3	8		7	4		1	6	6 7	5	2	
Permitted Phases						Free						
Detector Phase	3	8		7	4		1	6	6 7	5	2	

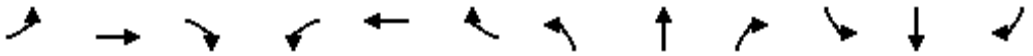


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	5.0		4.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	10.0	11.0		10.0	11.0		11.0	21.0		11.0	21.0	
Total Split (s)	18.0	13.0		18.0	13.0		11.0	58.0		31.0	78.0	
Total Split (%)	15.0%	10.8%		15.0%	10.8%		9.2%	48.3%		25.8%	65.0%	
Maximum Green (s)	12.0	7.0		12.0	7.0		5.0	52.0		25.0	72.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	2.0		3.0	2.0		2.0	2.5		2.0	2.0	
Minimum Gap (s)	3.0	0.2		3.0	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	15.8	5.0		10.4		120.0	4.9	60.8	77.2	22.0	80.0	
Actuated g/C Ratio	0.13	0.04		0.09		1.00	0.04	0.51	0.64	0.18	0.67	
v/c Ratio	0.08	0.19		0.52		0.13	0.57	0.64	0.10	0.86	0.86	
Control Delay	42.0	1.7		58.6		0.2	78.9	15.5	3.4	66.8	14.5	
Queue Delay	0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0	1.5	
Total Delay	42.0	1.7		58.6		0.2	78.9	15.5	3.4	66.8	16.0	
LOS	D	A		E		A	E	B	A	E	B	
Approach Delay		19.7						16.3			20.5	
Approach LOS		B						B			C	
Queue Length 50th (ft)	12	0		59		0	34	150	10	190	653	
Queue Length 95th (ft)	28	0		93		0	m54	167	m15	m262	303	
Internal Link Dist (ft)		1040			816			1026			385	
Turn Bay Length (ft)	200			300			150		200	200		
Base Capacity (vph)	524	272		343		1583	73	2577	1039	368	3377	
Starvation Cap Reductn	0	0		0		0	0	0	0	0	278	
Spillback Cap Reductn	0	0		0		0	0	0	0	0	0	
Storage Cap Reductn	0	0		0		0	0	0	0	0	0	
Reduced v/c Ratio	0.07	0.17		0.45		0.13	0.56	0.64	0.09	0.76	0.94	

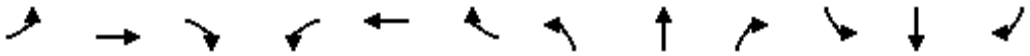
Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 85 (71%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 19.4 Intersection LOS: B
Intersection Capacity Utilization 81.1% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Essen & Dijon/Dijon Ext



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	5	91	5	42	1	1626	113	174	2838	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	100		0	350		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			150		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.865				0.850		0.990			0.999	
Flt Protected					0.955		0.950			0.950		
Satd. Flow (prot)	0	1611	0	0	1779	1583	1770	5034	0	1770	5080	0
Flt Permitted					0.733		0.950			0.950		
Satd. Flow (perm)	0	1611	0	0	1365	1583	1770	5034	0	1770	5080	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		136						14			2	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		496			1336			465			721	
Travel Time (s)		11.3			30.4			7.0			10.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	5	99	5	46	1	1767	123	189	3085	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	5	0	0	104	46	1	1890	0	189	3109	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45	45	45	144		45	162	
Trailing Detector (ft)	0	0		0	0	0	0	138		0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	20	45		20	45	45	45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								138			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type		NA		Perm	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases		8			4	4 5	1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4	4 5	1	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		4.0	15.0		3.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	21.0		9.0	21.0	
Total Split (s)	22.0	22.0		22.0	22.0		11.0	71.0		27.0	87.0	
Total Split (%)	18.3%	18.3%		18.3%	18.3%		9.2%	59.2%		22.5%	72.5%	
Maximum Green (s)	16.0	16.0		16.0	16.0		5.0	65.0		21.0	81.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		3.0	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)		12.7			12.7	35.3	5.4	72.7		16.6	93.1	
Actuated g/C Ratio		0.11			0.11	0.29	0.04	0.61		0.14	0.78	
v/c Ratio		0.02			0.72	0.10	0.01	0.62		0.77	0.79	
Control Delay		0.2			77.8	28.3	37.0	7.4		65.7	6.4	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	4.0	
Total Delay		0.2			77.8	28.3	37.0	7.4		65.7	10.5	
LOS		A			E	C	D	A		E	B	
Approach Delay		0.2			62.6			7.4			13.6	
Approach LOS		A			E			A			B	
Queue Length 50th (ft)		0			79	25	1	143		137	109	
Queue Length 95th (ft)		0			137	50	m1	35		m164	m564	
Internal Link Dist (ft)		416			1256			385			641	
Turn Bay Length (ft)						100	100			350		
Base Capacity (vph)		332			182	512	80	3054		309	3939	
Starvation Cap Reductn		0			0	0	0	122		0	434	
Spillback Cap Reductn		0			0	0	0	0		0	747	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.02			0.57	0.09	0.01	0.64		0.61	0.97	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 99 (83%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 12.8		Intersection LOS: B	
Intersection Capacity Utilization 85.6%		ICU Level of Service E	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 9: Essen & Essen Park

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	180	176	1564	692	338	1035
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		0	150	
Storage Lanes	2	1		0	1	
Taper Length (ft)	25				100	
Lane Util. Factor	0.97	1.00	0.91	0.91	1.00	0.95
Frt		0.850	0.954			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	4851	0	1770	3539
Flt Permitted	0.950				0.056	
Satd. Flow (perm)	3433	1583	4851	0	104	3539
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			121			
Link Speed (mph)	30		45			45
Link Distance (ft)	1306		805			993
Travel Time (s)	29.7		12.2			15.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	196	191	1700	752	367	1125
Shared Lane Traffic (%)						
Lane Group Flow (vph)	196	191	2452	0	367	1125
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	52		20			25
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2		1	2
Detector Template						
Leading Detector (ft)	45	45	162		45	162
Trailing Detector (ft)	0	0	156		0	156
Detector 1 Position(ft)	0	0	-6		0	-6
Detector 1 Size(ft)	45	45	51		45	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			156			156
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm	pt+ov	NA		pm+pt	NA
Protected Phases		5 8	6		5	2
Permitted Phases	8				2	
Detector Phase	8	5 8	6		5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	4.0		15.0		5.0	15.0
Minimum Split (s)	20.0		21.0		11.0	21.0
Total Split (s)	20.0		60.0		40.0	100.0
Total Split (%)	16.7%		50.0%		33.3%	83.3%
Maximum Green (s)	16.0		54.0		34.0	94.0
Yellow Time (s)	3.5		5.0		5.0	5.0
All-Red Time (s)	0.5		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.0		6.0		6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		5.0		2.0	5.0
Minimum Gap (s)	3.0		3.0		0.2	3.0
Time Before Reduce (s)	0.0		15.0		0.0	15.0
Time To Reduce (s)	0.0		15.0		0.0	15.0
Recall Mode	None		C-Min		None	Min
Walk Time (s)	5.0					
Flash Dont Walk (s)	11.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	14.8	42.7	65.3		95.2	95.2
Actuated g/C Ratio	0.12	0.36	0.54		0.79	0.79
v/c Ratio	0.46	0.34	0.91		0.89	0.40
Control Delay	52.4	28.4	22.9		61.5	5.6
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	52.4	28.4	22.9		61.5	5.6
LOS	D	C	C		E	A
Approach Delay	40.6		22.9			19.3
Approach LOS	D		C			B
Queue Length 50th (ft)	72	106	678		240	157
Queue Length 95th (ft)	111	146	#865		361	191
Internal Link Dist (ft)	1226		725			913
Turn Bay Length (ft)		100			150	
Base Capacity (vph)	457	680	2695		554	2808
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.43	0.28	0.91		0.66	0.40

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 13 (11%), Referenced to phase 6:NBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 23.3	Intersection LOS: C
Intersection Capacity Utilization 82.9%	ICU Level of Service E

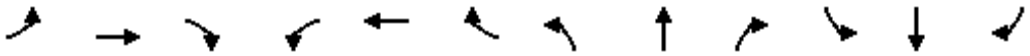
Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 17: Essen & United Plaza South

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	315	25	20	51	98	162	105	1167	51	184	1403	1184
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	425		50	280		280	150		0	550		300
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	100			200			25			100		
Lane Util. Factor	0.91	0.91	1.00	0.95	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Frt			0.850			0.850		0.994				0.850
Flt Protected	0.950	0.962		0.950	0.997		0.950			0.950		
Satd. Flow (prot)	3221	1631	1583	1681	1764	1583	1770	5055	0	1770	5085	1583
Flt Permitted	0.950	0.962		0.950	0.997		0.950			0.950		
Satd. Flow (perm)	3221	1631	1583	1681	1764	1583	1770	5055	0	1770	5085	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								6				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1908			1396			1335			1106	
Travel Time (s)		43.4			31.7			20.2			16.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	342	27	22	55	107	176	114	1268	55	200	1525	1287
Shared Lane Traffic (%)	28%			10%								
Lane Group Flow (vph)	246	123	22	49	113	176	114	1323	0	200	1525	1287
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		45			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	0	1	1	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	0	45	45	45	45	162		45	162	0
Trailing Detector (ft)	0	0	0	0	0	0	0	156		0	156	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	-6		0	-6	-6
Detector 1 Size(ft)	45	45	20	45	45	45	45	51		45	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Call
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4	4 5	1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4	4 5	1	6		5	2	2 8

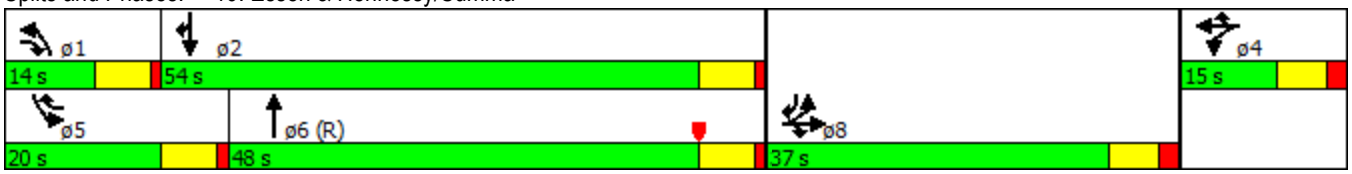


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.5	14.5		14.5	14.5		9.0	21.0		9.0	21.0	
Total Split (s)	37.0	37.0		15.0	15.0		14.0	48.0		20.0	54.0	
Total Split (%)	30.8%	30.8%		12.5%	12.5%		11.7%	40.0%		16.7%	45.0%	
Maximum Green (s)	30.5	30.5		8.5	8.5		8.0	42.0		14.0	48.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	30.5	30.5	38.0	8.5	8.5	28.5	8.0	42.0		14.0	48.0	85.0
Actuated g/C Ratio	0.25	0.25	0.32	0.07	0.07	0.24	0.07	0.35		0.12	0.40	0.71
v/c Ratio	0.30	0.30	0.04	0.41	0.91	0.47	0.97	0.75		0.97	0.75	1.15
Control Delay	37.4	38.5	17.8	64.3	115.6	44.1	142.3	28.7		104.3	29.5	87.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	37.4	38.5	17.8	64.3	115.6	44.1	142.3	28.7		104.3	29.5	87.5
LOS	D	D	B	E	F	D	F	C		F	C	F
Approach Delay		36.6			71.0			37.7			59.3	
Approach LOS		D			E			D			E	
Queue Length 50th (ft)	85	84	8	38	93	118	85	334		167	241	~1210
Queue Length 95th (ft)	124	146	23	83	#212	190	#218	390		m#223	327	#1481
Internal Link Dist (ft)		1828			1316			1255			1026	
Turn Bay Length (ft)	425		50	280		280	150			550		300
Base Capacity (vph)	818	414	501	119	124	375	118	1773		206	2034	1121
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.30	0.30	0.04	0.41	0.91	0.47	0.97	0.75		0.97	0.75	1.15

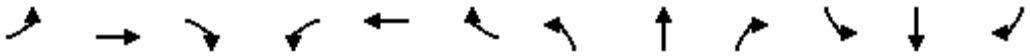
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 70 (58%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.15			
Intersection Signal Delay: 52.3		Intersection LOS: D	
Intersection Capacity Utilization 101.2%		ICU Level of Service G	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Essen & Hennessy/Summa



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	74	42	65	43	155	19	192	1229	86	66	1117	290
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	150		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.909			0.983			0.990			0.969	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1693	0	1770	1831	0	1770	5034	0	1770	4928	0
Flt Permitted	0.370			0.594			0.950			0.950		
Satd. Flow (perm)	689	1693	0	1106	1831	0	1770	5034	0	1770	4928	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		60			5			15			68	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1062			1416			1475			1335	
Travel Time (s)		24.1			32.2			22.3			20.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	80	46	71	47	168	21	209	1336	93	72	1214	315
Shared Lane Traffic (%)												
Lane Group Flow (vph)	80	117	0	47	189	0	209	1429	0	72	1529	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template												
Leading Detector (ft)	45	45		45	45		45	162		45	162	
Trailing Detector (ft)	0	0		0	0		0	156		0	156	
Detector 1 Position(ft)	0	0		0	0		0	-6		0	-6	
Detector 1 Size(ft)	45	45		45	45		45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4		1	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		2.0	15.0		3.0	15.0	
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	21.0		9.0	21.0	
Total Split (s)	33.0	33.0		33.0	33.0		29.0	73.0		14.0	58.0	
Total Split (%)	27.5%	27.5%		27.5%	27.5%		24.2%	60.8%		11.7%	48.3%	
Maximum Green (s)	28.0	28.0		28.0	28.0		23.0	67.0		8.0	52.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Act Effct Green (s)	16.9	16.9		16.9	16.9		18.4	80.9		7.6	67.7	
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.15	0.67		0.06	0.56	
v/c Ratio	0.82	0.40		0.30	0.72		0.77	0.42		0.64	0.54	
Control Delay	103.0	27.1		49.5	63.0		67.4	10.3		46.8	4.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	103.0	27.1		49.5	63.0		67.4	10.3		46.8	4.3	
LOS	F	C		D	E		E	B		D	A	
Approach Delay		57.9			60.3			17.6			6.2	
Approach LOS		E			E			B			A	
Queue Length 50th (ft)	61	40		33	138		157	180		52	2	
Queue Length 95th (ft)	#126	92		68	206		233	247		m70	17	
Internal Link Dist (ft)		982			1336			1395			1255	
Turn Bay Length (ft)	225			150			150			150		
Base Capacity (vph)	160	441		258	431		339	3398		118	2811	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.50	0.27		0.18	0.44		0.62	0.42		0.61	0.54	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 70 (58%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 17.5		Intersection LOS: B	
Intersection Capacity Utilization 70.4%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Essen & Picardy

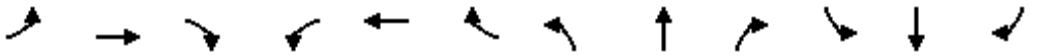
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	24	28	1859	188	363	1393
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	125		125	125	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.88	0.91	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2787	5085	1583	1770	3539
Flt Permitted	0.950				0.053	
Satd. Flow (perm)	1770	2787	5085	1583	99	3539
Right Turn on Red		Yes		No		
Satd. Flow (RTOR)		30				
Link Speed (mph)	30		45			45
Link Distance (ft)	1179		993			571
Travel Time (s)	26.8		15.0			8.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	30	2021	204	395	1514
Shared Lane Traffic (%)						
Lane Group Flow (vph)	26	30	2021	204	395	1514
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	42		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template						
Leading Detector (ft)	45	45	290	45	45	290
Trailing Detector (ft)	-6	-6	284	-6	-6	284
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			284			284
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	pt+ov	pm+pt	NA
Protected Phases	4		6	6 4	5	2
Permitted Phases		4			2	
Detector Phase	4	4	6	6 4	5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	5.0	5.0	15.0		3.0	15.0
Minimum Split (s)	11.0	11.0	21.0		9.0	21.0
Total Split (s)	17.0	17.0	63.0		40.0	103.0
Total Split (%)	14.2%	14.2%	52.5%		33.3%	85.8%
Maximum Green (s)	11.0	11.0	57.0		34.0	97.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0
Recall Mode	None	None	C-Min		None	Min
Act Effct Green (s)	6.6	6.6	69.5	82.1	101.4	101.4
Actuated g/C Ratio	0.06	0.06	0.58	0.68	0.84	0.84
v/c Ratio	0.27	0.16	0.69	0.19	0.89	0.51
Control Delay	60.5	19.9	7.8	3.3	63.1	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	60.5	19.9	7.8	3.3	63.1	1.1
LOS	E	B	A	A	E	A
Approach Delay	38.8		7.4			14.0
Approach LOS	D		A			B
Queue Length 50th (ft)	20	0	105	18	242	43
Queue Length 95th (ft)	49	17	163	m25	311	0
Internal Link Dist (ft)	1099		913			491
Turn Bay Length (ft)		125		125	125	
Base Capacity (vph)	162	282	2944	1140	561	2989
Starvation Cap Reductn	0	0	0	0	0	393
Spillback Cap Reductn	0	0	73	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.11	0.70	0.18	0.70	0.58

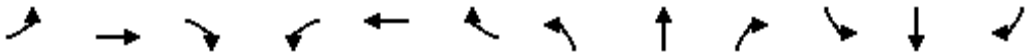
Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 27 (23%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 10.8 Intersection LOS: B
Intersection Capacity Utilization 75.2% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 28: Essen & United Plaza North



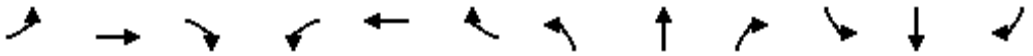
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	2	20	27	0	31	16	1754	116	352	1708	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		100	175		0	150		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	0.95
Frt		0.862				0.850		0.991			0.998	
Flt Protected	0.950				0.950		0.950			0.950		
Satd. Flow (prot)	1770	1606	0	0	1770	1583	1770	5040	0	1770	3532	0
Flt Permitted	0.738				0.742		0.115			0.062		
Satd. Flow (perm)	1375	1606	0	0	1382	1583	214	5040	0	115	3532	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		22						11			2	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		757			843			571			472	
Travel Time (s)		17.2			19.2			8.7			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	2	22	29	0	34	17	1907	126	383	1857	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	24	0	0	29	34	17	2033	0	383	1879	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290		45	390	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284		-6	384	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6		-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51		51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			384	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		8		7	4	4 5	1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4	4 5	1	6		5	2	



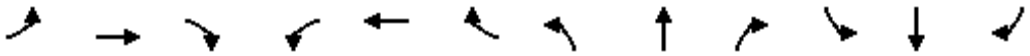
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	31.0		11.0	31.0	
Total Split (s)	14.0	14.0		11.0	25.0		11.0	60.0		35.0	84.0	
Total Split (%)	11.7%	11.7%		9.2%	20.8%		9.2%	50.0%		29.2%	70.0%	
Maximum Green (s)	8.0	8.0		5.0	19.0		5.0	54.0		29.0	78.0	
Yellow Time (s)	4.5	4.5		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		2.0	2.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lead		Lag			Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	3.0		0.2	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	7.8	7.8			7.8	35.9	72.1	72.1		93.6	94.8	
Actuated g/C Ratio	0.06	0.06			0.06	0.30	0.60	0.60		0.78	0.79	
v/c Ratio	0.50	0.19			0.32	0.07	0.07	0.67		0.90	0.67	
Control Delay	72.6	24.8			62.3	24.5	1.2	3.6		57.8	4.8	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.6	0.4	
Total Delay	72.6	24.8			62.3	24.5	1.2	3.6		58.4	5.1	
LOS	E	C			E	C	A	A		E	A	
Approach Delay		56.0			41.9			3.6			14.1	
Approach LOS		E			D			A			B	
Queue Length 50th (ft)	34	1			22	18	0	12		244	76	
Queue Length 95th (ft)	73	29			53	36	m0	6		m248	219	
Internal Link Dist (ft)		677			763			491			392	
Turn Bay Length (ft)	75					100	175			150		
Base Capacity (vph)	99	136			218	556	249	3032		510	2806	
Starvation Cap Reductn	0	0			0	0	0	47		17	372	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.45	0.18			0.13	0.06	0.07	0.68		0.78	0.77	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 28 (23%), Referenced to phase 2:SBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 10.3		Intersection LOS: B	
Intersection Capacity Utilization 79.9%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 29: Essen & Sholar/Archives



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	366	0	290	0	0	0	0	1237	590	0	1792	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.867							0.850			
Flt Protected	0.950	0.994										
Satd. Flow (prot)	1681	1525	0	0	0	0	0	3539	1583	0	3539	0
Flt Permitted	0.950	0.994										
Satd. Flow (perm)	1681	1525	0	0	0	0	0	3539	1583	0	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36							299			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		995			508			472			1384	
Travel Time (s)		22.6			11.5			7.2			21.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	398	0	315	0	0	0	0	1345	641	0	1948	0
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	358	355	0	0	0	0	0	1345	641	0	1948	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1						2	1		2	
Detector Template												
Leading Detector (ft)	45	45						290	45		290	
Trailing Detector (ft)	-6	-6						284	-6		284	
Detector 1 Position(ft)	-6	-6						-6	-6		-6	
Detector 1 Size(ft)	51	51						51	51		51	
Detector 1 Type	Cl+Ex	Cl+Ex						Call	Cl+Ex		Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0		0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA						NA	Free		NA	
Protected Phases		8						6			2	
Permitted Phases	8								Free			
Detector Phase	8	8						6			2	

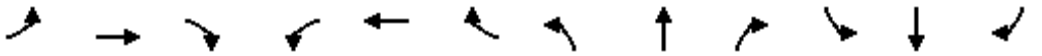


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	10.0	10.0						25.0			25.0	
Minimum Split (s)	17.0	17.0						32.0			32.0	
Total Split (s)	40.0	40.0						80.0			80.0	
Total Split (%)	33.3%	33.3%						66.7%			66.7%	
Maximum Green (s)	33.0	33.0						73.0			73.0	
Yellow Time (s)	5.0	5.0						5.0			5.0	
All-Red Time (s)	2.0	2.0						2.0			2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	7.0	7.0						7.0			7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5						5.0			5.0	
Minimum Gap (s)	0.2	0.2						3.0			3.0	
Time Before Reduce (s)	0.0	0.0						15.0			15.0	
Time To Reduce (s)	0.0	0.0						15.0			15.0	
Recall Mode	None	None						C-Max			Max	
Act Effct Green (s)	29.4	29.4						76.6	120.0		76.6	
Actuated g/C Ratio	0.24	0.24						0.64	1.00		0.64	
v/c Ratio	0.87	0.89						0.60	0.40		0.86	
Control Delay	64.9	63.1						12.4	1.0		23.5	
Queue Delay	0.0	0.0						0.2	0.0		0.2	
Total Delay	64.9	63.1						12.5	1.0		23.7	
LOS	E	E						B	A		C	
Approach Delay		64.0						8.8			23.7	
Approach LOS		E						A			C	
Queue Length 50th (ft)	272	247						158	0		634	
Queue Length 95th (ft)	#413	#402						318	0		784	
Internal Link Dist (ft)		915			428			392			1304	
Turn Bay Length (ft)	400											
Base Capacity (vph)	462	445						2260	1583		2260	
Starvation Cap Reductn	0	0						222	0		0	
Spillback Cap Reductn	0	0						0	0		36	
Storage Cap Reductn	0	0						0	0		0	
Reduced v/c Ratio	0.77	0.80						0.66	0.40		0.88	

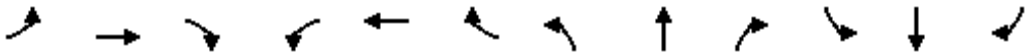
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 20 (17%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 23.5		Intersection LOS: C	
Intersection Capacity Utilization 80.2%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 32: Essen & I-12 EB

M.19 2017 BUILD AM – BLUEBONNET BOULEVARD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	142	684	37	325	776	156	208	1192	218	201	841	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		250	325		375	350		0	250		150
Storage Lanes	2		1	2		1	2		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Frt			0.850			0.850		0.977				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3458	0	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3458	0	3433	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								14				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		2445			3864			2201			709	
Travel Time (s)		37.0			58.5			33.3			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	149	720	39	342	817	164	219	1255	229	212	885	235
Shared Lane Traffic (%)												
Lane Group Flow (vph)	149	720	39	342	817	164	219	1484	0	212	885	235
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45	45	290		45	290	45
Trailing Detector (ft)	-6	284	-6	-6	284	-6	-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6	-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51	51	51		51	51	51
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		284			284			284			284	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Extend			Extend			Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8		7	4	4 5
Permitted Phases												
Detector Phase	5	2	2 3	1	6	6 7	3	8		7	4	4 5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	10.0		4.0	10.0	
Minimum Split (s)	11.0	34.5		11.0	37.5		11.0	41.0		11.0	41.0	
Total Split (s)	17.0	53.0		27.0	63.0		30.0	69.0		21.0	60.0	
Total Split (%)	10.0%	31.2%		15.9%	37.1%		17.6%	40.6%		12.4%	35.3%	
Maximum Green (s)	10.0	46.5		20.0	56.5		23.0	62.0		14.0	53.0	
Yellow Time (s)	5.0	4.5		5.0	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	6.5		7.0	6.5		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.3		3.0	4.3		3.0	3.9		3.0	3.9	
Minimum Gap (s)	0.2	2.2		0.2	2.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	15.0		0.0	15.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0		0.0	10.0		0.0	10.0	
Recall Mode	None	Min		None	Min		None	Min		None	C-Min	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		23.0			26.0			29.0			29.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	10.0	38.4	71.6	19.5	47.9	69.8	32.8	69.7		14.9	51.9	61.9
Actuated g/C Ratio	0.06	0.23	0.42	0.11	0.28	0.41	0.19	0.41		0.09	0.31	0.36
v/c Ratio	0.74	0.90	0.06	0.87	0.82	0.25	0.33	1.04		0.71	0.82	0.41
Control Delay	100.0	79.0	16.8	95.7	64.1	32.8	62.7	82.0		74.2	58.2	26.5
Queue Delay	150.6	0.0	0.0	0.0	0.0	0.2	0.0	24.1		0.0	0.1	0.0
Total Delay	250.7	79.0	16.8	95.7	64.1	33.0	62.7	106.1		74.2	58.3	26.5
LOS	F	E	B	F	E	C	E	F		E	E	C
Approach Delay		104.5			68.4			100.5			55.3	
Approach LOS		F			E			F			E	
Queue Length 50th (ft)	86	415	16	195	449	118	109	~948		119	516	149
Queue Length 95th (ft)	#138	468	34	#275	498	166	164	#1167		164	566	256
Internal Link Dist (ft)		2365			3784			2121			629	
Turn Bay Length (ft)	440		250	325		375	350			250		150
Base Capacity (vph)	201	968	742	403	1176	638	661	1426		309	1105	587
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	11	0
Spillback Cap Reductn	186	0	0	0	0	107	0	189		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	9.93	0.74	0.05	0.85	0.69	0.31	0.33	1.20		0.69	0.81	0.40

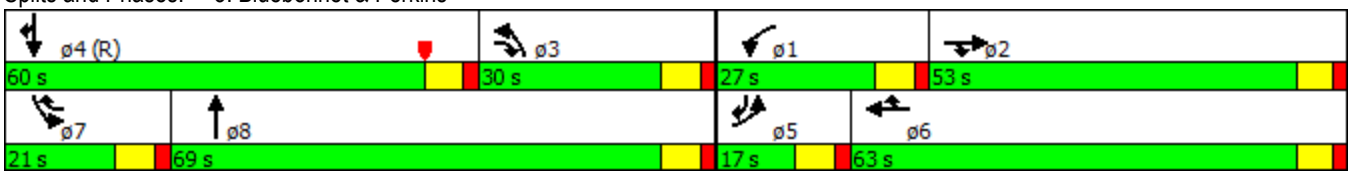
Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 60 (35%), Referenced to phase 4:SBT, Start of Yellow			
Natural Cycle: 135			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.04			
Intersection Signal Delay: 81.7		Intersection LOS: F	
Intersection Capacity Utilization 96.7%		ICU Level of Service F	

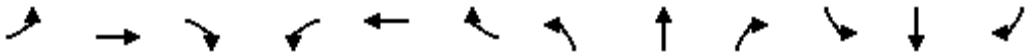
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

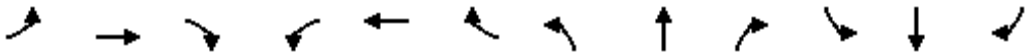
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Bluebonnet & Perkins





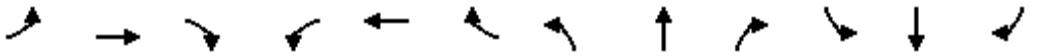
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	63	16	24	24	3	23	40	1381	71	348	1217	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		125	160		160	175		0
Storage Lanes	1		0	0		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.911				0.850			0.850		0.993	
Flt Protected	0.950				0.957		0.950			0.950		
Satd. Flow (prot)	1770	1697	0	0	1783	1583	1770	3539	1583	3433	3514	0
Flt Permitted	0.739				0.777		0.950			0.950		
Satd. Flow (perm)	1377	1697	0	0	1447	1583	1770	3539	1583	3433	3514	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		25									6	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		511			1048			709			2556	
Travel Time (s)		11.6			23.8			10.7			38.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	66	17	25	25	3	24	42	1454	75	366	1281	64
Shared Lane Traffic (%)												
Lane Group Flow (vph)	66	42	0	0	28	24	42	1454	75	366	1345	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290	45	45	290	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284	-6	-6	284	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6	-6	-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	
Protected Phases		8		7	4	4 5	1	6	6 7	5	2	
Permitted Phases	8			4								
Detector Phase	8	8		7	4	4 5	1	6	6 7	5	2	



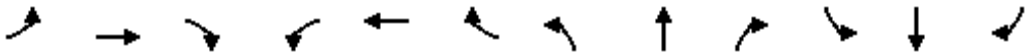
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		3.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	11.0	11.0		9.0	11.0		9.0	21.0		9.0	21.0	
Total Split (s)	22.0	22.0		11.0	33.0		20.0	102.0		35.0	117.0	
Total Split (%)	12.9%	12.9%		6.5%	19.4%		11.8%	60.0%		20.6%	68.8%	
Maximum Green (s)	16.0	16.0		5.0	27.0		14.0	96.0		29.0	111.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lead		Lag			Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		1.5	2.0		1.5	4.0		1.5	4.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	12.7	12.7			25.6	53.8	8.1	104.2	117.2	22.2	120.4	
Actuated g/C Ratio	0.07	0.07			0.15	0.32	0.05	0.61	0.69	0.13	0.71	
v/c Ratio	0.65	0.28			0.12	0.05	0.51	0.67	0.07	0.82	0.54	
Control Delay	102.9	40.6			60.8	36.3	71.2	33.4	10.6	86.9	14.2	
Queue Delay	0.0	0.0			0.0	0.0	0.0	34.0	0.0	0.0	0.0	
Total Delay	102.9	40.6			60.8	36.3	71.2	67.4	10.6	86.9	14.2	
LOS	F	D			E	D	E	E	B	F	B	
Approach Delay		78.6			49.5			64.8			29.7	
Approach LOS		E			D			E			C	
Queue Length 50th (ft)	73	18			27	19	43	822	19	208	360	
Queue Length 95th (ft)	126	60			57	38	m49	m874	m66	259	526	
Internal Link Dist (ft)		431			968			629			2476	
Turn Bay Length (ft)	100					125	160		160	175		
Base Capacity (vph)	133	187			259	519	145	2194	1091	585	2510	
Starvation Cap Reductn	0	0			0	0	0	828	0	0	0	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.50	0.22			0.11	0.05	0.29	1.06	0.07	0.63	0.54	

Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 45 (26%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 47.6		Intersection LOS: D	
Intersection Capacity Utilization 73.3%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Bluebonnet & Park Rowe



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	154	7	38	16	4	27	59	1402	6	60	1571	421
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	475		475	50		0	425		0	130		130
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.869			0.999				0.850
Flt Protected	0.950	0.956		0.950			0.950			0.950		
Satd. Flow (prot)	1681	1692	1583	1770	1619	0	1770	3536	0	1770	3539	1583
Flt Permitted	0.950	0.956		0.950			0.950			0.950		
Satd. Flow (perm)	1681	1692	1583	1770	1619	0	1770	3536	0	1770	3539	1583
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)					28			1				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1004			740			2556			469	
Travel Time (s)		22.8			16.8			38.7			7.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	162	7	40	17	4	28	62	1476	6	63	1654	443
Shared Lane Traffic (%)	48%											
Lane Group Flow (vph)	84	85	40	17	32	0	62	1482	0	63	1654	443
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	45	45	45		45	290		45	290	45
Trailing Detector (ft)	-6	-6	-6	-6	-6		-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6		-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51		51	51		51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA		Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4		1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4		1	6		5	2	2 8



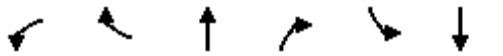
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.5	25.5		8.5	25.5	
Total Split (s)	16.0	16.0		13.0	13.0		12.0	72.0		14.0	74.0	
Total Split (%)	13.9%	13.9%		11.3%	11.3%		10.4%	62.6%		12.2%	64.3%	
Maximum Green (s)	11.0	11.0		8.0	8.0		6.5	66.5		8.5	68.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	6.0		3.0	6.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	10.9	10.9	23.2	7.9	7.9		6.8	71.5		11.1	75.9	89.5
Actuated g/C Ratio	0.09	0.09	0.20	0.07	0.07		0.06	0.62		0.10	0.66	0.78
v/c Ratio	0.53	0.53	0.13	0.14	0.23		0.59	0.67		0.37	0.71	0.36
Control Delay	62.4	62.5	38.8	53.1	25.0		75.7	18.1		36.6	9.6	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.1	0.0
Total Delay	62.4	62.5	38.8	53.1	25.0		75.7	18.1		36.6	9.7	2.4
LOS	E	E	D	D	C		E	B		D	A	A
Approach Delay		57.9			34.8			20.4			9.0	
Approach LOS		E			C			C			A	
Queue Length 50th (ft)	63	64	25	12	3		46	418		43	0	73
Queue Length 95th (ft)	118	120	56	36	35		#109	482		m69	237	41
Internal Link Dist (ft)		924			660			2476			389	
Turn Bay Length (ft)	475		475	50			425			130		130
Base Capacity (vph)	164	165	311	123	138		106	2224		178	2334	1222
Starvation Cap Reductn	0	0	0	0	0		0	0		0	110	0
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.51	0.52	0.13	0.14	0.23		0.58	0.67		0.35	0.74	0.36

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 69 (60%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 16.3		Intersection LOS: B	
Intersection Capacity Utilization 69.7%		ICU Level of Service C	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Bluebonnet & Anselmo



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Lane Configurations									
Volume (vph)	137	47	1510	72	55	1913			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	0	100		150	350				
Storage Lanes	2	1		1	1				
Taper Length (ft)	25				25				
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.91			
Frt		0.850		0.850					
Flt Protected	0.950				0.950				
Satd. Flow (prot)	3433	1583	3539	1583	1770	5085			
Flt Permitted	0.950				0.950				
Satd. Flow (perm)	3433	1583	3539	1583	1770	5085			
Right Turn on Red		No		No					
Satd. Flow (RTOR)									
Link Speed (mph)	30		45			45			
Link Distance (ft)	352		390			974			
Travel Time (s)	8.0		5.9			14.8			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95			
Adj. Flow (vph)	144	49	1589	76	58	2014			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	144	49	1589	76	58	2014			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Right	Left	Left			
Median Width(ft)	35		20			20			
Link Offset(ft)	0		0			0			
Crosswalk Width(ft)	16		16			16			
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Turning Speed (mph)	15	9		9	15				
Number of Detectors	1	1	2	1	1	2			
Detector Template									
Leading Detector (ft)	45	45	290	45	45	290			
Trailing Detector (ft)	-6	-6	284	-6	-6	284			
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			
Detector 1 Size(ft)	51	51	51	51	51	51			
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call			
Detector 1 Channel									
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)			284			284			
Detector 2 Size(ft)			6			6			
Detector 2 Type			Extend			Extend			
Detector 2 Channel									
Detector 2 Extend (s)			0.0			0.0			
Turn Type	Prot	pt+ov	NA	pt+ov	Prot	NA			
Protected Phases	4	4 3	1	1 4	3	2	5	7	8
Permitted Phases									
Detector Phase	4	4 3	1	1 4	3	2			

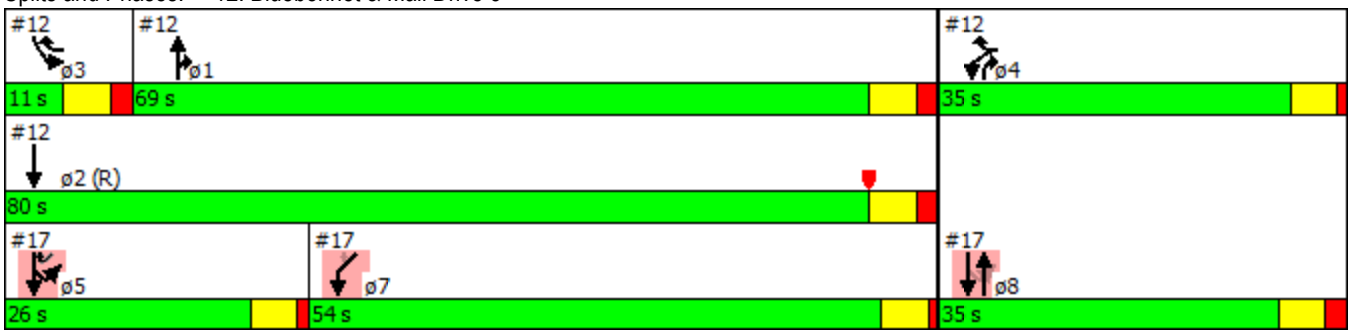
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Switch Phase									
Minimum Initial (s)	4.0		24.0		4.0	34.0	4.0	4.0	29.0
Minimum Split (s)	10.0		30.0		10.0	40.0	10.0	21.0	35.0
Total Split (s)	35.0		69.0		11.0	80.0	26.0	54.0	35.0
Total Split (%)	30.4%		60.0%		9.6%	69.6%	23%	47%	30%
Maximum Green (s)	30.0		63.0		5.0	74.0	21.0	49.0	29.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		2.0		2.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0			
Total Lost Time (s)	5.0		6.0		6.0	6.0			
Lead/Lag			Lag		Lead		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	
Vehicle Extension (s)	2.5		4.3		2.0	4.3	2.5	3.0	4.3
Minimum Gap (s)	0.2		2.2		0.2	2.2	0.2	3.0	2.2
Time Before Reduce (s)	0.0		20.0		0.0	30.0	0.0	0.0	30.0
Time To Reduce (s)	0.0		15.0		0.0	15.0	0.0	0.0	15.0
Recall Mode	None		Min		None	C-Min	None	None	Min
Walk Time (s)								5.0	
Flash Dont Walk (s)								11.0	
Pedestrian Calls (#/hr)								0	
Act Effct Green (s)	30.0	42.6	63.7	99.9	6.6	74.0			
Actuated g/C Ratio	0.26	0.37	0.55	0.87	0.06	0.64			
v/c Ratio	0.16	0.08	0.81	0.06	0.57	0.62			
Control Delay	16.8	9.9	11.2	0.7	70.2	10.0			
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay	16.8	9.9	11.2	0.7	70.2	10.0			
LOS	B	A	B	A	E	A			
Approach Delay	15.1		10.7			11.7			
Approach LOS	B		B			B			
Queue Length 50th (ft)	30	17	151	0	46	124			
Queue Length 95th (ft)	40	30	133	m5	m54	m34			
Internal Link Dist (ft)	272		310			894			
Turn Bay Length (ft)		100		150	350				
Base Capacity (vph)	895	586	2006	1346	101	3272			
Starvation Cap Reductn	0	0	0	0	0	0			
Spillback Cap Reductn	0	0	0	0	0	0			
Storage Cap Reductn	0	0	0	0	0	0			
Reduced v/c Ratio	0.16	0.08	0.79	0.06	0.57	0.62			

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 73 (63%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 11.4		Intersection LOS: B	
Intersection Capacity Utilization 58.8%		ICU Level of Service B	

Analysis Period (min) 15

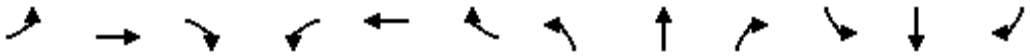
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 12: Bluebonnet & Mall Drive 3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	312	6	220	59	121	20	186	1367	4	42	1690	758
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	140		140	200		200	200		160
Storage Lanes	2		0	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		0.854				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3022	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3022	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		232										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1050			403			974			1065	
Travel Time (s)		23.9			9.2			14.8			16.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	328	6	232	62	127	21	196	1439	4	44	1779	798
Shared Lane Traffic (%)												
Lane Group Flow (vph)	328	238	0	62	127	21	196	1439	4	44	1779	798
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			36			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pt+ov
Protected Phases	3	2		9	8	8 6	1	10	10 9	6	5	5 3
Permitted Phases												
Detector Phase	3	2		9	8	8 6	1	10	10 9	6	5	5 3

Lane Group	ø11	ø12	ø13	ø14
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	11	12	13	14
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	21.0		3.0	21.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		11.0	27.0		11.0	27.0	
Total Split (s)	33.0	33.0		11.0	11.0		22.0	47.0		24.0	49.0	
Total Split (%)	28.7%	28.7%		9.6%	9.6%		19.1%	40.9%		20.9%	42.6%	
Maximum Green (s)	27.0	27.0		5.0	5.0		16.0	41.0		18.0	43.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.0		1.0	1.0		3.0	4.3		1.0	4.3	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	28.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	15.0	
Recall Mode	None	None		None	None		None	None		None	C-Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	27.0	27.0		4.8	5.0	27.4	16.2	46.0	56.8	23.4	42.8	75.8
Actuated g/C Ratio	0.23	0.23		0.04	0.04	0.24	0.14	0.40	0.49	0.20	0.37	0.66
v/c Ratio	0.41	0.27		0.44	0.83	0.06	0.79	0.71	0.01	0.06	0.94	0.77
Control Delay	39.0	5.8		55.8	86.6	41.8	47.3	16.0	1.2	75.0	30.5	15.8
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.0	5.8		55.8	86.6	41.8	47.3	16.0	1.2	75.0	30.5	15.8
LOS	D	A		E	F	D	D	B	A	E	C	B
Approach Delay		25.1			73.0			19.7			26.7	
Approach LOS		C			E			B			C	
Queue Length 50th (ft)	106	1		25	52	16	146	33	0	16	269	161
Queue Length 95th (ft)	150	34		49	#110	44	m#177	82	m0	m0	#492	360
Internal Link Dist (ft)		970			323			894			985	
Turn Bay Length (ft)	150			140		140	200		200	200		160
Base Capacity (vph)	806	887		149	153	514	249	2254	823	996	1901	1046
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.27		0.42	0.83	0.04	0.79	0.64	0.00	0.04	0.94	0.76

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 58 (50%), Referenced to phase 5:SBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 26.2		Intersection LOS: C	
Intersection Capacity Utilization 75.6%		ICU Level of Service D	

Lane Group	ø11	ø12	ø13	ø14
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	3.0
Minimum Split (s)	10.0	20.0	8.0	9.0
Total Split (s)	11.0	34.0	33.0	37.0
Total Split (%)	10%	30%	29%	32%
Maximum Green (s)	5.0	30.0	29.0	31.0
Yellow Time (s)	4.0	3.5	3.5	4.0
All-Red Time (s)	2.0	0.5	0.5	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	1.0
Minimum Gap (s)	3.0	3.0	3.0	0.2
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Walk Time (s)		5.0		
Flash Dont Walk (s)		11.0		
Pedestrian Calls (#/hr)		0		
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

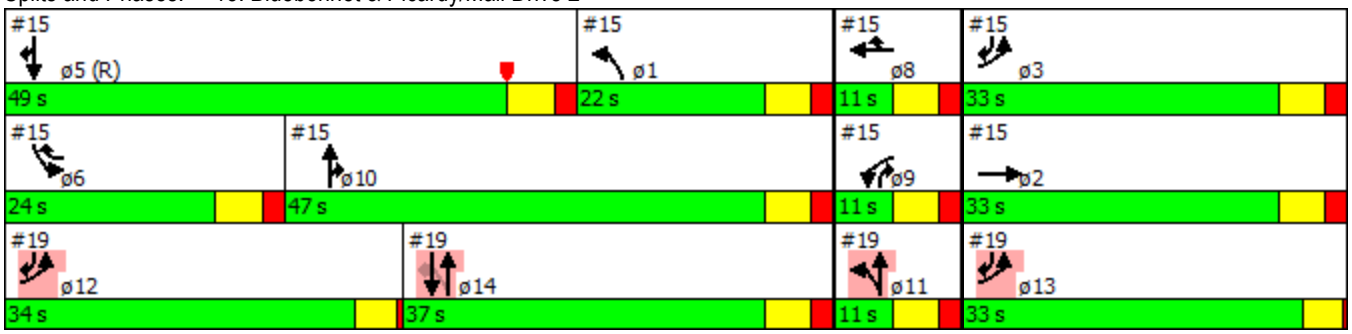
Intersection Summary

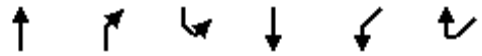
Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

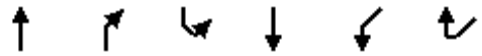
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 15: Bluebonnet & Picardy/Mall Drive 2





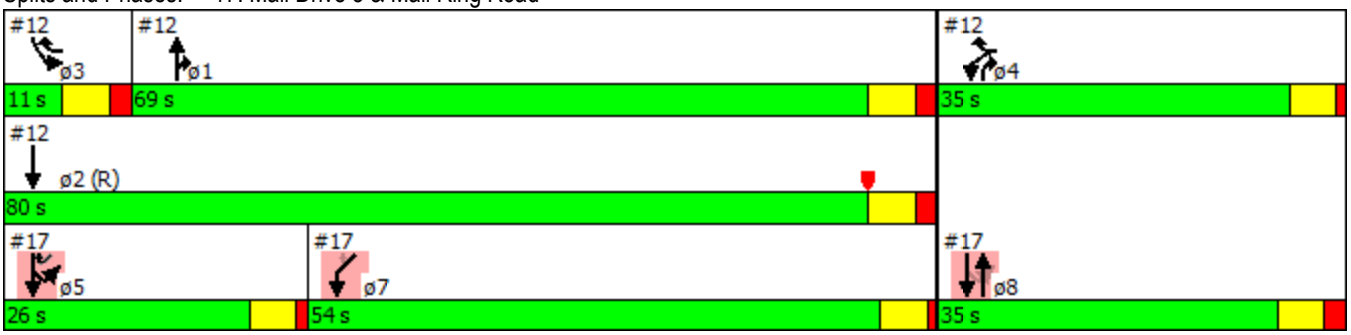
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Lane Configurations										
Volume (vph)	107	97	64	63	80	77				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00				
Frt	0.929					0.850				
Flt Protected			0.950		0.950					
Satd. Flow (prot)	3288	0	1770	1863	1770	1583				
Flt Permitted			0.614		0.950					
Satd. Flow (perm)	3288	0	1144	1863	1770	1583				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)	105					84				
Link Speed (mph)	30			30	30					
Link Distance (ft)	797			352	1050					
Travel Time (s)	18.1			8.0	23.9					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Adj. Flow (vph)	116	105	70	68	87	84				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	221	0	70	68	87	84				
Enter Blocked Intersection	No	No	No	No	No	No				
Lane Alignment	Left	Right	Left	Left	Left	Right				
Median Width(ft)	0			12	12					
Link Offset(ft)	0			0	0					
Crosswalk Width(ft)	16			16	16					
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)		9	15		15	9				
Number of Detectors	2		1	2	1	1				
Detector Template	Thru		Left	Thru	Left	Right				
Leading Detector (ft)	100		20	100	20	20				
Trailing Detector (ft)	0		0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0				
Detector 1 Size(ft)	6		20	6	20	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel										
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0				
Detector 2 Position(ft)	94			94						
Detector 2 Size(ft)	6			6						
Detector 2 Type	Cl+Ex			Cl+Ex						
Detector 2 Channel										
Detector 2 Extend (s)	0.0			0.0						
Turn Type	NA		D.P+P	NA	Prot	pm+ov				
Protected Phases	8		5	5 8	7	5	1	2	3	4
Permitted Phases			8			7				
Detector Phase	8		5	5 8	7	5				
Switch Phase										
Minimum Initial (s)	29.0		4.0		4.0	4.0	24.0	34.0	4.0	4.0
Minimum Split (s)	35.0		10.0		21.0	10.0	30.0	40.0	10.0	10.0

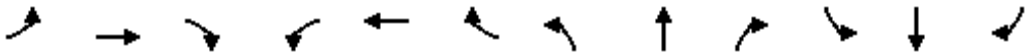


Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Total Split (s)	35.0		26.0		54.0	26.0	69.0	80.0	11.0	35.0
Total Split (%)	30.4%		22.6%		47.0%	22.6%	60%	70%	10%	30%
Maximum Green (s)	29.0		21.0		49.0	21.0	63.0	74.0	5.0	30.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		1.0		1.0	1.0	2.0	2.0	2.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0				
Total Lost Time (s)	6.0		5.0		5.0	5.0				
Lead/Lag			Lead		Lag	Lead	Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	Yes				
Vehicle Extension (s)	4.3		2.5		3.0	2.5	4.3	4.3	2.0	2.5
Minimum Gap (s)	2.2		0.2		3.0	0.2	2.2	2.2	0.2	0.2
Time Before Reduce (s)	30.0		0.0		0.0	0.0	20.0	30.0	0.0	0.0
Time To Reduce (s)	15.0		0.0		0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	Min		None		None	None	Min	C-Min	None	None
Walk Time (s)					5.0					
Flash Dont Walk (s)					11.0					
Pedestrian Calls (#/hr)					0					
Act Effct Green (s)	29.0		35.6	40.6	64.4	75.0				
Actuated g/C Ratio	0.25		0.31	0.35	0.56	0.65				
v/c Ratio	0.24		0.18	0.10	0.09	0.08				
Control Delay	18.4		51.9	49.3	3.9	0.5				
Queue Delay	0.0		0.0	0.0	0.0	0.0				
Total Delay	18.4		51.9	49.3	3.9	0.5				
LOS	B		D	D	A	A				
Approach Delay	18.4			50.6	2.2					
Approach LOS	B			D	A					
Queue Length 50th (ft)	35		51	49	4	0				
Queue Length 95th (ft)	67		m98	m96	15	6				
Internal Link Dist (ft)	717			272	970					
Turn Bay Length (ft)										
Base Capacity (vph)	907		621	907	991	1061				
Starvation Cap Reductn	0		0	0	0	0				
Spillback Cap Reductn	0		0	0	0	0				
Storage Cap Reductn	0		0	0	0	0				
Reduced v/c Ratio	0.24		0.11	0.07	0.09	0.08				

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 73 (63%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 21.6		Intersection LOS: C	
Intersection Capacity Utilization 45.5%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

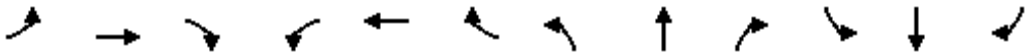
Splits and Phases: 17: Mall Drive 3 & Mall Ring Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	134	1554	12	31	2379	258	0	0	46	119	1	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		200	300		100	0		0	65		0
Storage Lanes	1		1	2		1	0		2	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.851	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1585	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1585	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			85			28			237		88	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1065			834			318			371	
Travel Time (s)		16.1			12.6			7.2			8.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	141	1636	13	33	2504	272	0	0	48	125	1	117
Shared Lane Traffic (%)												
Lane Group Flow (vph)	141	1636	13	33	2504	272	0	0	48	125	118	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1			1	1	1	
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45			45	45	45	
Trailing Detector (ft)	-6	284	-6	-6	284	-6			-6	-6	-6	
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			-6	-6	-6	
Detector 1 Size(ft)	51	51	51	51	51	51			51	51	51	
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA	Perm	Prot	NA	custom			Over	Perm	NA	
Protected Phases	1	7		5	4	2			5		2	
Permitted Phases			7			4				2		
Detector Phase	1	7	7	5	4	2			5	2	2	

Lane Group	ø8	ø9	ø10	ø11
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	8	9	10	11
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	14.0	4.0	14.0	4.0			4.0	4.0	4.0	
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	10.0			10.0	10.0	10.0	
Total Split (s)	11.0	83.0	83.0	12.0	84.0	20.0			12.0	20.0	20.0	
Total Split (%)	9.6%	72.2%	72.2%	10.4%	73.0%	17.4%			10.4%	17.4%	17.4%	
Maximum Green (s)	5.0	77.0	77.0	6.0	78.0	14.0			6.0	14.0	14.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0			6.0	6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	4.3	4.3	2.5	4.3	2.0			2.5	2.0	2.0	
Minimum Gap (s)	0.2	2.2	2.2	0.2	2.2	0.2			0.2	0.2	0.2	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	34.0	0.0			0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	15.0	0.0			0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Min	None			None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	18.5	81.5	81.5	5.8	66.6	84.5			5.8	11.9	11.9	
Actuated g/C Ratio	0.16	0.71	0.71	0.05	0.58	0.73			0.05	0.10	0.10	
v/c Ratio	0.50	0.45	0.01	0.19	0.85	0.23			0.13	0.68	0.49	
Control Delay	41.5	5.4	0.0	54.4	20.9	3.3			2.1	68.5	22.8	
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0			0.0	0.0	0.0	
Total Delay	41.5	5.4	0.0	54.4	21.0	3.3			2.1	68.5	22.8	
LOS	D	A	A	D	C	A			A	E	C	
Approach Delay		8.2			19.6						46.3	
Approach LOS		A			B						D	
Queue Length 50th (ft)	89	99	0	11	606	36			0	90	20	
Queue Length 95th (ft)	m#284	106	m0	m12	m527	m3			0	153	77	
Internal Link Dist (ft)		985			754			238			291	
Turn Bay Length (ft)	140		200	300		100				65		
Base Capacity (vph)	284	3604	1147	180	3448	1150			371	215	270	
Starvation Cap Reductn	0	0	0	0	134	0			0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0			0	0	0	
Storage Cap Reductn	0	0	0	0	0	0			0	0	0	
Reduced v/c Ratio	0.50	0.45	0.01	0.18	0.76	0.24			0.13	0.58	0.44	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 84 (73%), Referenced to phase 4:WBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 16.6		Intersection LOS: B	
Intersection Capacity Utilization 75.3%		ICU Level of Service D	

Lane Group	ø8	ø9	ø10	ø11
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	14.0
Minimum Split (s)	22.0	8.0	20.0	20.0
Total Split (s)	32.0	25.0	20.0	38.0
Total Split (%)	28%	22%	17%	33%
Maximum Green (s)	26.0	21.0	16.0	32.0
Yellow Time (s)	4.0	3.5	3.5	4.0
All-Red Time (s)	2.0	0.5	0.5	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	4.3
Minimum Gap (s)	3.0	3.0	3.0	2.2
Time Before Reduce (s)	0.0	0.0	0.0	34.0
Time To Reduce (s)	0.0	0.0	0.0	15.0
Recall Mode	None	None	None	Min
Walk Time (s)	5.0		5.0	
Flash Dont Walk (s)	11.0		11.0	
Pedestrian Calls (#/hr)	0		0	
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

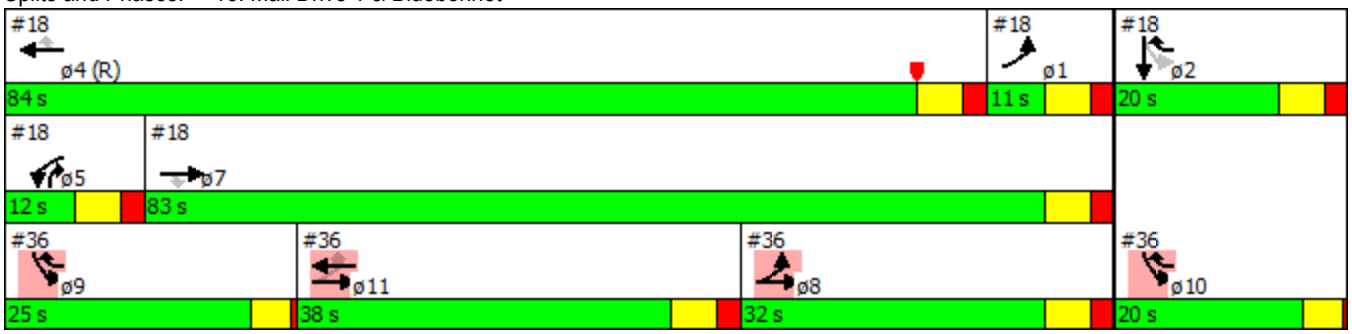
Intersection Summary

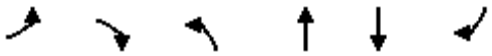
Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

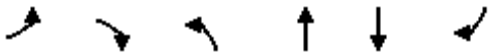
Splits and Phases: 18: Mall Drive 1 & Bluebonnet





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Lane Configurations												
Volume (vph)	32	20	138	23	137	61						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Frt		0.850				0.850						
Flt Protected	0.950		0.950									
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583						
Flt Permitted	0.950		0.662									
Satd. Flow (perm)	1770	1583	1233	1863	1863	1583						
Right Turn on Red		Yes				Yes						
Satd. Flow (RTOR)		22				66						
Link Speed (mph)	30			30	30							
Link Distance (ft)	403			1050	819							
Travel Time (s)	9.2			23.9	18.6							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	35	22	150	25	149	66						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	35	22	150	25	149	66						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Right	Left	Left	Left	Right						
Median Width(ft)	36			12	0							
Link Offset(ft)	0			0	0							
Crosswalk Width(ft)	16			16	16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15	9	15			9						
Number of Detectors	1	1	1	2	2	1						
Detector Template	Left	Right	Left	Thru	Thru	Right						
Leading Detector (ft)	20	20	20	100	100	20						
Trailing Detector (ft)	0	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0	0						
Detector 1 Size(ft)	20	20	20	6	6	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)				94	94							
Detector 2 Size(ft)				6	6							
Detector 2 Type				Cl+Ex	Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)				0.0	0.0							
Turn Type	Prot	Free	D.P+P	NA	NA	pm+ov						
Protected Phases	12 13		11	11 14	14	12 13	1	2	3	5	6	8
Permitted Phases		Free	14			14						
Detector Phase	12 13		11	11 14	14	12 13						
Switch Phase												
Minimum Initial (s)			4.0		3.0		3.0	3.0	3.0	21.0	3.0	3.0
Minimum Split (s)			10.0		9.0		11.0	9.0	9.0	27.0	11.0	9.0

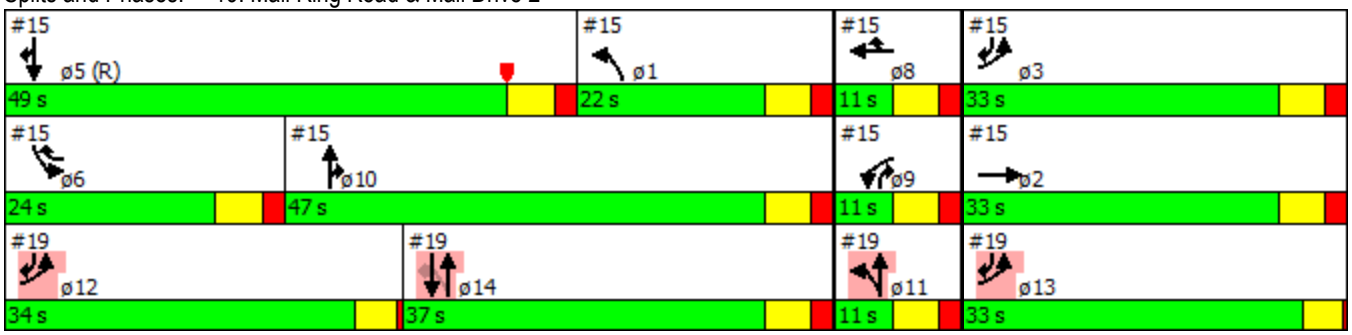
Lane Group	ø9	ø10	ø12	ø13
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	9	10	12	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	21.0	4.0	4.0
Minimum Split (s)	9.0	27.0	20.0	8.0



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Total Split (s)			11.0		37.0		22.0	33.0	33.0	49.0	24.0	11.0
Total Split (%)			9.6%		32.2%		19%	29%	29%	43%	21%	10%
Maximum Green (s)			5.0		31.0		16.0	27.0	27.0	43.0	18.0	5.0
Yellow Time (s)			4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)			2.0		2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0		0.0							
Total Lost Time (s)			6.0		6.0							
Lead/Lag					Lag		Lag			Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0		1.0		3.0	1.0	1.5	4.3	1.0	1.0
Minimum Gap (s)			3.0		0.2		0.2	0.2	0.2	2.2	0.2	0.2
Time Before Reduce (s)			0.0		0.0		0.0	0.0	0.0	28.0	0.0	0.0
Time To Reduce (s)			0.0		0.0		0.0	0.0	0.0	15.0	0.0	0.0
Recall Mode			None		None		None	None	None	C-Min	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	38.7	115.0	52.6	58.6	47.6	91.4						
Actuated g/C Ratio	0.34	1.00	0.46	0.51	0.41	0.79						
v/c Ratio	0.06	0.01	0.26	0.03	0.19	0.05						
Control Delay	63.1	0.1	31.3	27.7	6.0	0.1						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	63.1	0.1	31.3	27.7	6.0	0.1						
LOS	E	A	C	C	A	A						
Approach Delay	38.8			30.8	4.2							
Approach LOS	D			C	A							
Queue Length 50th (ft)	27	0	101	16	8	0						
Queue Length 95th (ft)	60	0	171	45	14	0						
Internal Link Dist (ft)	323			970	739							
Turn Bay Length (ft)												
Base Capacity (vph)	980	1583	586	961	819	1344						
Starvation Cap Reductn	0	0	0	0	0	0						
Spillback Cap Reductn	0	0	0	0	0	0						
Storage Cap Reductn	0	0	0	0	0	0						
Reduced v/c Ratio	0.04	0.01	0.26	0.03	0.18	0.05						

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 58 (50%), Referenced to phase 5:SBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 19.0		Intersection LOS: B	
Intersection Capacity Utilization 31.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 19: Mall Ring Road & Mall Drive 2

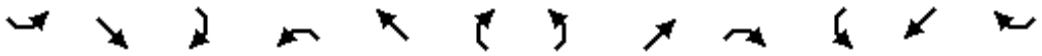


Lane Group	ø9	ø10	ø12	ø13
Total Split (s)	11.0	47.0	34.0	33.0
Total Split (%)	10%	41%	30%	29%
Maximum Green (s)	5.0	41.0	30.0	29.0
Yellow Time (s)	4.0	4.0	3.5	3.5
All-Red Time (s)	2.0	2.0	0.5	0.5
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?			Yes	
Vehicle Extension (s)	1.0	4.3	3.0	3.0
Minimum Gap (s)	0.2	0.2	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Walk Time (s)			5.0	
Flash Dont Walk (s)			11.0	
Pedestrian Calls (#/hr)			0	
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	392	1	1015	0	0	0	0	1640	78	263	1651	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		375	0		0	400		0	300		0
Storage Lanes	1		1	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.88	1.00	1.00	1.00	1.00	0.86	1.00	0.97	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950	0.953								0.950		
Satd. Flow (prot)	1681	1686	2787	0	0	0	0	6408	1583	3433	3539	0
Flt Permitted	0.950	0.953								0.950		
Satd. Flow (perm)	1681	1686	2787	0	0	0	0	6408	1583	3433	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			66						82			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1072			1024			834			410	
Travel Time (s)		24.4			23.3			12.6			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	413	1	1068	0	0	0	0	1726	82	277	1738	0
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	206	208	1068	0	0	0	0	1726	82	277	1738	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			37	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					2	1	1	2	
Detector Template												
Leading Detector (ft)	45	45	45					290	45	45	290	
Trailing Detector (ft)	-6	-6	-6					284	-6	-6	284	
Detector 1 Position(ft)	-6	-6	-6					-6	-6	-6	-6	
Detector 1 Size(ft)	51	51	51					51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	custom					NA	Perm	Prot	NA	
Protected Phases	4	4	4 14					2		1	12	
Permitted Phases									2			
Detector Phase	4	4	4 14					2	2	1	12	

Lane Group	ø5	ø6	ø8	ø14	ø16	ø18
Lane Configurations						
Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	5	6	8	14	16	18
Permitted Phases						
Detector Phase						



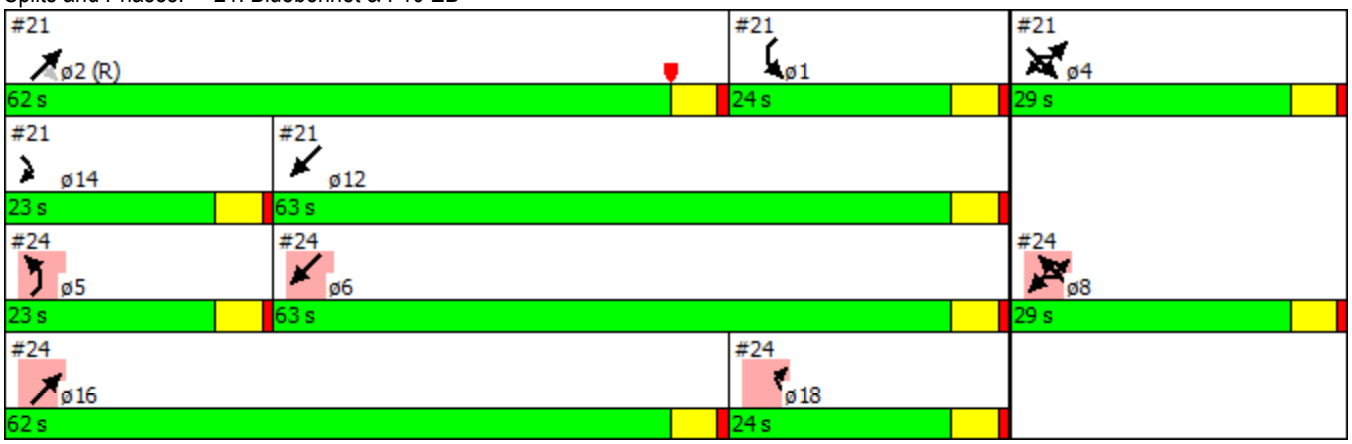
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)	3.0	3.0						10.0	10.0	3.0	10.0	
Minimum Split (s)	20.0	20.0						20.0	20.0	8.0	20.0	
Total Split (s)	29.0	29.0						62.0	62.0	24.0	63.0	
Total Split (%)	25.2%	25.2%						53.9%	53.9%	20.9%	54.8%	
Maximum Green (s)	24.0	24.0						57.0	57.0	19.0	58.0	
Yellow Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0	2.0	2.0	6.0	
Recall Mode	None	None						C-Max	C-Max	None	Max	
Act Effct Green (s)	24.0	24.0	47.0					57.0	57.0	19.0	58.0	
Actuated g/C Ratio	0.21	0.21	0.41					0.50	0.50	0.17	0.50	
v/c Ratio	0.59	0.59	0.91					0.54	0.10	0.49	0.97	
Control Delay	48.9	49.0	42.1					15.9	2.5	35.6	31.2	
Queue Delay	0.0	0.0	0.0					0.1	0.0	0.0	0.0	
Total Delay	48.9	49.0	42.1					16.0	2.5	35.6	31.2	
LOS	D	D	D					B	A	D	C	
Approach Delay		44.0						15.4			31.8	
Approach LOS		D						B			C	
Queue Length 50th (ft)	146	147	394					232	3	103	687	
Queue Length 95th (ft)	230	233	#546					265	m7	m138	#826	
Internal Link Dist (ft)		992			944			754			330	
Turn Bay Length (ft)	375		375							300		
Base Capacity (vph)	350	351	1178					3176	825	567	1784	
Starvation Cap Reductn	0	0	0					0	0	0	0	
Spillback Cap Reductn	0	0	0					306	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.59	0.59	0.91					0.60	0.10	0.49	0.97	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 3 (3%), Referenced to phase 2:NET, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.98			
Intersection Signal Delay: 29.6		Intersection LOS: C	
Intersection Capacity Utilization 89.8%		ICU Level of Service E	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

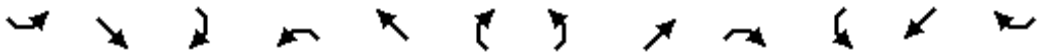
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: Bluebonnet & I-10 EB



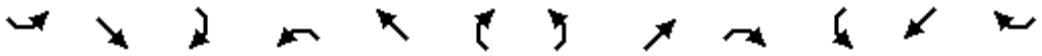
Lane Group	ø5	ø6	ø8	ø14	ø16	ø18
Switch Phase						
Minimum Initial (s)	3.0	10.0	3.0	3.0	10.0	4.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	23.0	63.0	29.0	23.0	62.0	24.0
Total Split (%)	20%	55%	25%	20%	54%	21%
Maximum Green (s)	18.0	58.0	24.0	18.0	57.0	19.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?						Yes
Vehicle Extension (s)	3.5	6.0	2.0	3.5	2.0	3.0
Recall Mode	Max	Max	None	Max	Max	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	0	0	429	4	588	403	1629	0	0	1485	242
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		525	300		0	575		575
Storage Lanes	0		0	1		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.95	1.00	1.00	0.91	0.91
Frt						0.850					0.979	
Flt Protected				0.950	0.953		0.950					
Satd. Flow (prot)	0	0	0	1681	1686	1583	3433	3539	0	0	4979	0
Flt Permitted				0.950	0.953		0.950					
Satd. Flow (perm)	0	0	0	1681	1686	1583	3433	3539	0	0	4979	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						66					39	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		894			1008			410			866	
Travel Time (s)		20.3			22.9			6.2			13.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	452	4	619	424	1715	0	0	1563	255
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	0	0	226	230	619	424	1715	0	0	1818	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			40			50	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			2	
Detector Template												
Leading Detector (ft)				45	45	45	45	290			290	
Trailing Detector (ft)				-6	-6	-6	-6	284			284	
Detector 1 Position(ft)				-6	-6	-6	-6	-6			-6	
Detector 1 Size(ft)				51	51	51	51	51			51	
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call			Call	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type				Split	NA	custom	Prot	NA			NA	
Protected Phases				8	8	8 18	5	16			6	
Permitted Phases												
Detector Phase				8	8	8 18	5	16			6	

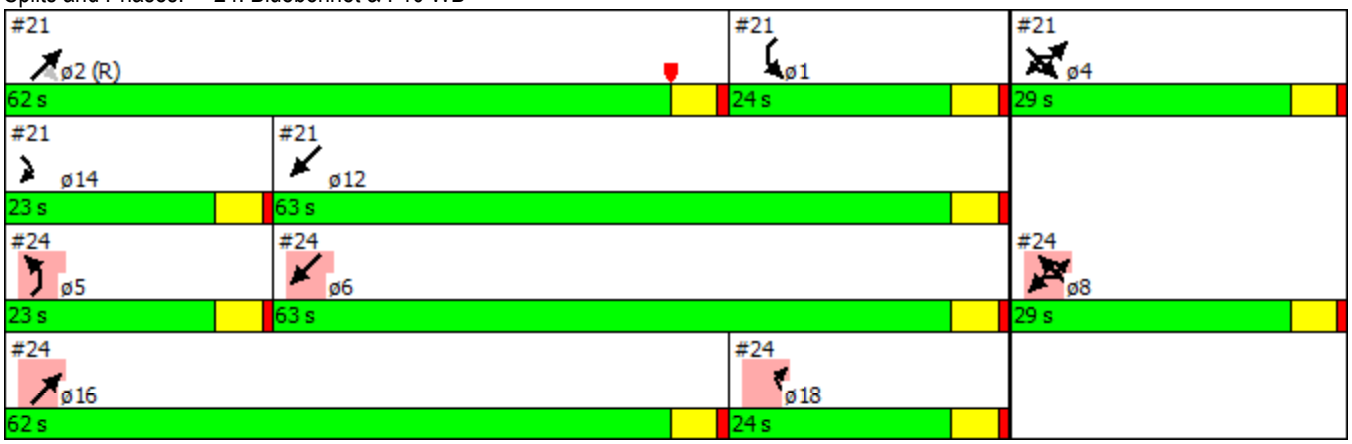
Lane Group	ø1	ø2	ø4	ø12	ø14	ø18
Lane Configurations						
Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	1	2	4	12	14	18
Permitted Phases						
Detector Phase						



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)				3.0	3.0		3.0	10.0			10.0	
Minimum Split (s)				20.0	20.0		8.0	20.0			20.0	
Total Split (s)				29.0	29.0		23.0	62.0			63.0	
Total Split (%)				25.2%	25.2%		20.0%	53.9%			54.8%	
Maximum Green (s)				24.0	24.0		18.0	57.0			58.0	
Yellow Time (s)				4.0	4.0		4.0	4.0			4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				5.0	5.0		5.0	5.0			5.0	
Lead/Lag							Lead	Lead			Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0		3.5	2.0			6.0	
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)				24.0	24.0	48.0	18.0	57.0			58.0	
Actuated g/C Ratio				0.21	0.21	0.42	0.16	0.50			0.50	
v/c Ratio				0.65	0.66	0.89	0.79	0.98			0.72	
Control Delay				51.3	51.7	43.9	58.1	29.7			15.3	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.3	
Total Delay				51.3	51.7	43.9	58.1	29.7			15.6	
LOS				D	D	D	E	C			B	
Approach Delay					47.1			35.3			15.6	
Approach LOS					D			D			B	
Queue Length 50th (ft)				162	165	380	121	703			370	
Queue Length 95th (ft)				253	257	#609	#192	#849			317	
Internal Link Dist (ft)		814			928			330			786	
Turn Bay Length (ft)						525	300					
Base Capacity (vph)				350	351	699	537	1754			2530	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			205	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.65	0.66	0.89	0.79	0.98			0.78	

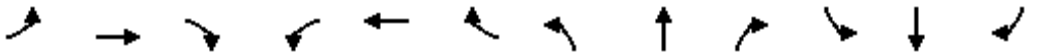
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 3 (3%), Referenced to phase 2:NET, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.98			
Intersection Signal Delay: 30.7		Intersection LOS: C	
Intersection Capacity Utilization 89.8%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 24: Bluebonnet & I-10 WB

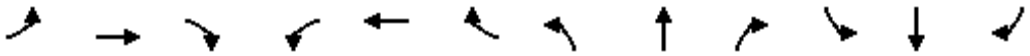


Lane Group	ø1	ø2	ø4	ø12	ø14	ø18
Switch Phase						
Minimum Initial (s)	3.0	10.0	3.0	10.0	3.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	8.0	20.0
Total Split (s)	24.0	62.0	29.0	63.0	23.0	24.0
Total Split (%)	21%	54%	25%	55%	20%	21%
Maximum Green (s)	19.0	57.0	24.0	58.0	18.0	19.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lead		Lag	Lead	Lag
Lead-Lag Optimize?						Yes
Vehicle Extension (s)	2.0	2.0	2.0	6.0	3.5	3.0
Recall Mode	None	C-Max	None	Max	Max	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	29	17	254	8	22	81	1541	594	262	1456	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		200	300		175	175		175
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.945			0.925	0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3345	0	3433	1637	1504	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.105			0.065		
Satd. Flow (perm)	1770	3345	0	3433	1637	1504	196	3539	1583	121	3539	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		18										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		475			1072			866			1049	
Travel Time (s)		10.8			24.4			13.1			15.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	42	31	18	267	8	23	85	1622	625	276	1533	52
Shared Lane Traffic (%)						35%						
Lane Group Flow (vph)	42	49	0	267	16	15	85	1622	625	276	1533	52
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		60			60			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4		3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases							2			6		
Detector Phase	7	4		3	8	8 1	5	2	2 3	1	6	6 7



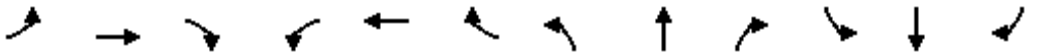
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	5.0		5.0	3.0		3.0	20.0		5.0	20.0	
Minimum Split (s)	8.9	10.9		10.9	8.9		9.6	26.6		11.6	26.6	
Total Split (s)	13.0	13.0		18.0	18.0		12.0	59.0		25.0	72.0	
Total Split (%)	11.3%	11.3%		15.7%	15.7%		10.4%	51.3%		21.7%	62.6%	
Maximum Green (s)	7.1	7.1		12.1	12.1		5.4	52.4		18.4	65.4	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	0.9	0.9		0.9	0.9		1.6	1.6		1.6	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.9	5.9		5.9	5.9		6.6	6.6		6.6	6.6	
Lead/Lag	Lead	Lead		Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		2.5	1.5		1.5	5.0		1.5	5.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	10.1	5.6		12.8	10.3	31.7	62.9	57.7	71.2	80.4	70.8	86.7
Actuated g/C Ratio	0.09	0.05		0.11	0.09	0.28	0.55	0.50	0.62	0.70	0.62	0.75
v/c Ratio	0.27	0.27		0.70	0.11	0.04	0.48	0.91	0.64	0.88	0.70	0.04
Control Delay	55.2	40.8		59.6	48.7	27.1	13.1	20.9	5.8	57.3	14.6	3.0
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.2	40.8		59.6	48.7	27.1	13.1	20.9	5.8	57.3	14.6	3.0
LOS	E	D		E	D	C	B	C	A	E	B	A
Approach Delay		47.4			57.4			16.6			20.6	
Approach LOS		D			E			B			C	
Queue Length 50th (ft)	31	12		98	11	8	12	~505	60	119	451	14
Queue Length 95th (ft)	69	32		#152	34	25	m13	m#710	m92	#290	157	m10
Internal Link Dist (ft)		395			992			786			969	
Turn Bay Length (ft)	75			200		200	300		175	175		175
Base Capacity (vph)	164	223		393	173	455	181	1776	984	348	2178	1203
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.22		0.68	0.09	0.03	0.47	0.91	0.64	0.79	0.70	0.04

Intersection Summary

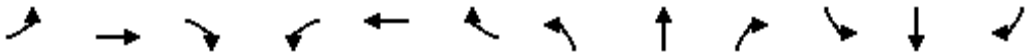
Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 115
Offset: 12 (10%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 21.5 Intersection LOS: C
Intersection Capacity Utilization 86.9% ICU Level of Service E
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 27: Bluebonnet & Blue Cross



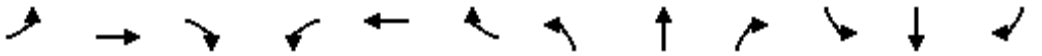
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	1	22	28	2	6	8	1571	24	1	1718	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		130	150		185
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.931			0.978				0.850			0.850
Flt Protected		0.977			0.962		0.950			0.950		
Satd. Flow (prot)	0	1694	0	0	1753	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.833			0.789		0.107			0.130		
Satd. Flow (perm)	0	1445	0	0	1437	0	199	3539	1583	242	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			6				28			28
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1129			1330			1049			1811	
Travel Time (s)		25.7			30.2			15.9			27.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	21	1	23	29	2	6	8	1654	25	1	1808	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	45	0	0	37	0	8	1654	25	1	1808	4
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



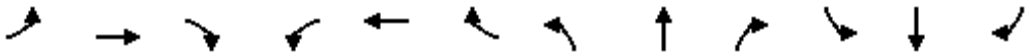
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	11.0	11.0		11.0	11.0		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	25.0	25.0		25.0	25.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	21.7%	21.7%		21.7%	21.7%		78.3%	78.3%	78.3%	78.3%	78.3%	78.3%
Maximum Green (s)	19.0	19.0		19.0	19.0		84.0	84.0	84.0	84.0	84.0	84.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		7.9			7.9		98.6	98.6	98.6	98.6	98.6	98.6
Actuated g/C Ratio		0.07			0.07		0.86	0.86	0.86	0.86	0.86	0.86
v/c Ratio		0.38			0.36		0.05	0.55	0.02	0.00	0.60	0.00
Control Delay		38.5			53.4		2.4	7.8	1.0	3.0	7.1	0.2
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		38.5			53.4		2.4	7.8	1.0	3.0	7.1	0.2
LOS		D			D		A	A	A	A	A	A
Approach Delay		38.5			53.4			7.7			7.1	
Approach LOS		D			D			A			A	
Queue Length 50th (ft)		16			22		2	341	2	0	300	0
Queue Length 95th (ft)		52			56		m0	m57	m0	m0	555	m0
Internal Link Dist (ft)		1049			1250			969			1731	
Turn Bay Length (ft)							150		130	150		185
Base Capacity (vph)		257			242		170	3033	1360	207	3033	1360
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.18			0.15		0.05	0.55	0.02	0.00	0.60	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 33 (29%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 8.2		Intersection LOS: A	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 30: Bluebonnet & Gail



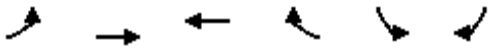
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	6	70	30	2	20	68	1514	16	5	1622	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.891			0.948				0.850			0.850
Flt Protected		0.994			0.972		0.950			0.950		
Satd. Flow (prot)	0	1650	0	0	1716	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.953			0.723		0.117			0.136		
Satd. Flow (perm)	0	1582	0	0	1277	0	218	3539	1583	253	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32			21				30			30
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1794			2049			1811			2409	
Travel Time (s)		40.8			46.6			27.4			36.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	12	6	74	32	2	21	72	1594	17	5	1707	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	92	0	0	55	0	72	1594	17	5	1707	25
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	9.2	9.2		9.2	9.2		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	34.0	34.0		34.0	34.0		81.0	81.0	81.0	81.0	81.0	81.0
Total Split (%)	29.6%	29.6%		29.6%	29.6%		70.4%	70.4%	70.4%	70.4%	70.4%	70.4%
Maximum Green (s)	27.8	27.8		27.8	27.8		75.0	75.0	75.0	75.0	75.0	75.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.2	1.2		1.2	1.2		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.2			6.2		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		9.6			9.6		93.2	93.2	93.2	93.2	93.2	93.2
Actuated g/C Ratio		0.08			0.08		0.81	0.81	0.81	0.81	0.81	0.81
v/c Ratio		0.57			0.44		0.41	0.56	0.01	0.02	0.60	0.02
Control Delay		46.8			44.0		7.8	1.8	0.1	3.2	5.4	0.9
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		46.8			44.0		7.8	1.8	0.1	3.2	5.4	0.9
LOS		D			D		A	A	A	A	A	A
Approach Delay		46.8			44.0			2.1			5.3	
Approach LOS		D			D			A			A	
Queue Length 50th (ft)		43			24		0	2	0	1	190	0
Queue Length 95th (ft)		94			64		m8	38	m1	4	303	5
Internal Link Dist (ft)		1714			1969			1731			2329	
Turn Bay Length (ft)							150		150	150		150
Base Capacity (vph)		406			324		176	2867	1288	204	2867	1288
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.23			0.17		0.41	0.56	0.01	0.02	0.60	0.02

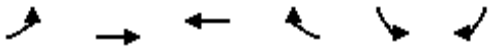
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 86 (75%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 5.5		Intersection LOS: A	
Intersection Capacity Utilization 76.2%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 33: Bluebonnet & Oliphant



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Lane Configurations												
Volume (vph)	16	39	181	30	27	17						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.95						
Frt				0.850	0.943							
Flt Protected	0.950				0.970							
Satd. Flow (prot)	1770	1863	1863	1583	3306	0						
Flt Permitted	0.442				0.970							
Satd. Flow (perm)	823	1863	1863	1583	3306	0						
Right Turn on Red				Yes		Yes						
Satd. Flow (RTOR)				33	18							
Link Speed (mph)		30	30		30							
Link Distance (ft)		819	802		318							
Travel Time (s)		18.6	18.2		7.2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	17	42	197	33	29	18						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	17	42	197	33	47	0						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Right	Left	Right						
Median Width(ft)		12	0		36							
Link Offset(ft)		0	0		0							
Crosswalk Width(ft)		16	16		16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15			9	15	9						
Number of Detectors	1	2	2	1	1							
Detector Template	Left	Thru	Thru	Right	Left							
Leading Detector (ft)	20	100	100	20	20							
Trailing Detector (ft)	0	0	0	0	0							
Detector 1 Position(ft)	0	0	0	0	0							
Detector 1 Size(ft)	20	6	6	20	20							
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex							
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0							
Detector 2 Position(ft)		94	94									
Detector 2 Size(ft)		6	6									
Detector 2 Type		Cl+Ex	Cl+Ex									
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0									
Turn Type	D.P+P	NA	NA	pm+ov	Prot							
Protected Phases	8	8 11	11	9 10	9 10		1	2	4	5	7	9
Permitted Phases	11			11								
Detector Phase	8	8 11	11	9 10	9 10							
Switch Phase												
Minimum Initial (s)	4.0		14.0				4.0	4.0	14.0	4.0	14.0	4.0
Minimum Split (s)	22.0		20.0				10.0	10.0	20.0	10.0	20.0	8.0

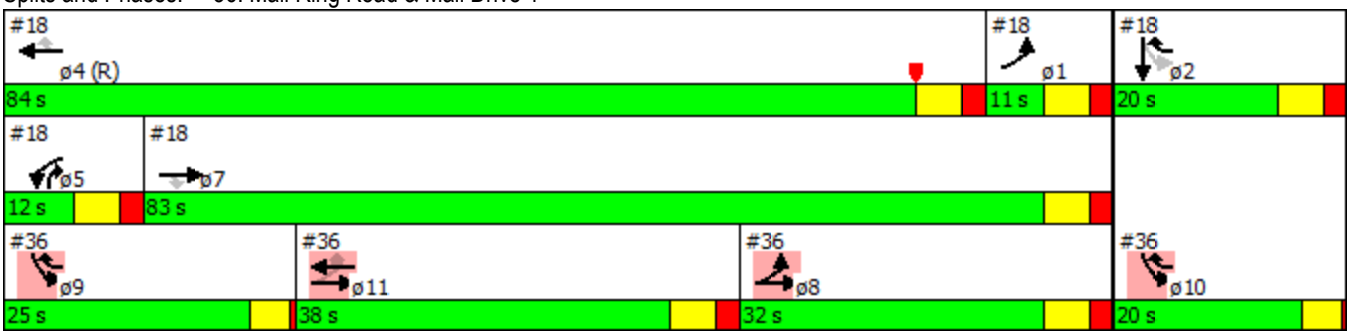
Lane Group	ø10
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	10
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	20.0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Total Split (s)	32.0		38.0				11.0	20.0	84.0	12.0	83.0	25.0
Total Split (%)	27.8%		33.0%				10%	17%	73%	10%	72%	22%
Maximum Green (s)	26.0		32.0				5.0	14.0	78.0	6.0	77.0	21.0
Yellow Time (s)	4.0		4.0				4.0	4.0	4.0	4.0	4.0	3.5
All-Red Time (s)	2.0		2.0				2.0	2.0	2.0	2.0	2.0	0.5
Lost Time Adjust (s)	0.0		0.0									
Total Lost Time (s)	6.0		6.0									
Lead/Lag			Lag				Lag		Lead	Lead	Lag	Lead
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0		4.3				2.5	2.0	4.3	2.5	4.3	3.0
Minimum Gap (s)	3.0		2.2				0.2	0.2	2.2	0.2	2.2	3.0
Time Before Reduce (s)	0.0		34.0				0.0	0.0	34.0	0.0	0.0	0.0
Time To Reduce (s)	0.0		15.0				0.0	0.0	15.0	0.0	0.0	0.0
Recall Mode	None		Min				None	None	C-Min	None	None	None
Walk Time (s)	5.0											
Flash Dont Walk (s)	11.0											
Pedestrian Calls (#/hr)	0											
Act Effct Green (s)	77.5	83.5	19.1	46.6	23.4							
Actuated g/C Ratio	0.67	0.73	0.17	0.41	0.20							
v/c Ratio	0.02	0.03	0.64	0.05	0.07							
Control Delay	8.2	7.4	53.7	5.4	61.0							
Queue Delay	0.0	0.0	0.0	0.0	0.0							
Total Delay	8.2	7.4	53.7	5.4	61.0							
LOS	A	A	D	A	E							
Approach Delay		7.7	46.8		61.0							
Approach LOS		A	D		E							
Queue Length 50th (ft)	8	20	138	0	13							
Queue Length 95th (ft)	23	42	201	16	33							
Internal Link Dist (ft)		739	722		238							
Turn Bay Length (ft)												
Base Capacity (vph)	1035	1352	518	666	1112							
Starvation Cap Reductn	0	0	0	0	0							
Spillback Cap Reductn	0	0	0	0	0							
Storage Cap Reductn	0	0	0	0	0							
Reduced v/c Ratio	0.02	0.03	0.38	0.05	0.04							

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 84 (73%), Referenced to phase 4:WBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 41.9		Intersection LOS: D	
Intersection Capacity Utilization 25.0%		ICU Level of Service A	
Analysis Period (min) 15			

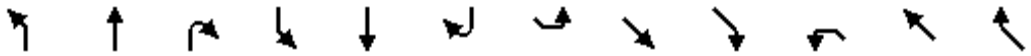
Splits and Phases: 36: Mall Ring Road & Mall Drive 1



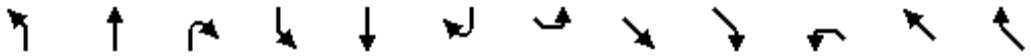
Lane Group	ø10
Total Split (s)	20.0
Total Split (%)	17%
Maximum Green (s)	16.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Minimum Gap (s)	3.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

M.20 2017 BUILD NOON – ESSEN LANE



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	216	581	81	353	875	389	477	803	123	158	1072	307
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	800		0	300		0	150		0
Storage Lanes	1		0	1		1	2		0	1		0
Taper Length (ft)	150			25			200			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Frt		0.982				0.850		0.980			0.967	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3476	0	1770	3539	1583	3433	3468	0	1770	3422	0
Flt Permitted	0.115			0.099			0.950			0.950		
Satd. Flow (perm)	214	3476	0	184	3539	1583	3433	3468	0	1770	3422	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8				254		11			24	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1877			1475			2128			1788	
Travel Time (s)		28.4			22.3			32.2			27.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	235	632	88	384	951	423	518	873	134	172	1165	334
Shared Lane Traffic (%)												
Lane Group Flow (vph)	235	720	0	384	951	423	518	1007	0	172	1499	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	0	1	1		1	1	
Detector Template												
Leading Detector (ft)	45	162		45	162	0	45	45		45	45	
Trailing Detector (ft)	0	156		0	156	0	0	0		0	0	
Detector 1 Position(ft)	0	-6		0	-6	0	0	0		0	0	
Detector 1 Size(ft)	45	51		45	51	50	45	45		45	45	
Detector 1 Type	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2		2						
Detector Phase	1	6		5	2	2	3	8		7	4	



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	5.0	10.0		3.0	10.0	
Minimum Split (s)	8.8	15.8		8.8	15.8	15.8	11.5	16.5		9.5	16.5	
Total Split (s)	22.0	40.6		34.0	52.6	52.6	30.0	71.8		28.2	70.0	
Total Split (%)	12.6%	23.3%		19.5%	30.1%	30.1%	17.2%	41.1%		16.2%	40.1%	
Maximum Green (s)	16.2	34.8		28.2	46.8	46.8	23.5	65.3		21.7	63.5	
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8	5.5	5.5		5.5	5.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8		5.8	5.8	5.8	6.5	6.5		6.5	6.5	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	6.0		2.0	6.0	6.0	2.0	6.0		2.0	6.0	
Minimum Gap (s)	0.2	4.0		0.2	4.0	4.0	0.2	4.0		0.2	4.0	
Time Before Reduce (s)	0.0	20.0		0.0	20.0	20.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	
Act Effct Green (s)	51.0	34.8		68.8	46.8	46.8	23.5	61.3		25.7	63.5	
Actuated g/C Ratio	0.29	0.20		0.39	0.27	0.27	0.13	0.35		0.15	0.36	
v/c Ratio	1.14	1.03		1.17	1.00	0.69	1.12	0.82		0.66	1.19	
Control Delay	151.0	107.6		151.4	92.5	28.6	144.5	57.3		83.9	140.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	151.0	107.6		151.4	92.5	28.6	144.5	57.3		83.9	140.4	
LOS	F	F		F	F	C	F	E		F	F	
Approach Delay		118.3			90.0			86.9			134.6	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~261	~458		~470	~581	181	~350	540		192	~1077	
Queue Length 95th (ft)	#453	#594		#693	#734	318	#474	618		#315	#1216	
Internal Link Dist (ft)		1797			1395			2048			1708	
Turn Bay Length (ft)	250			800			300			150		
Base Capacity (vph)	206	699		328	948	610	462	1303		260	1259	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	1.14	1.03		1.17	1.00	0.69	1.12	0.77		0.66	1.19	

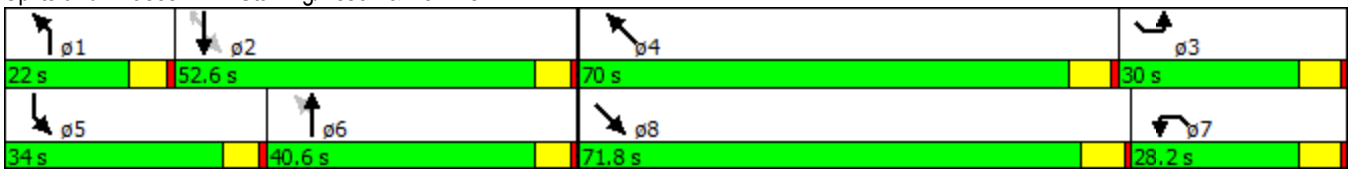
Intersection Summary			
Area Type:	Other		
Cycle Length: 174.6			
Actuated Cycle Length: 174.6			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.19			
Intersection Signal Delay: 106.4		Intersection LOS: F	
Intersection Capacity Utilization 111.7%		ICU Level of Service H	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Starring/Essen & Perkins



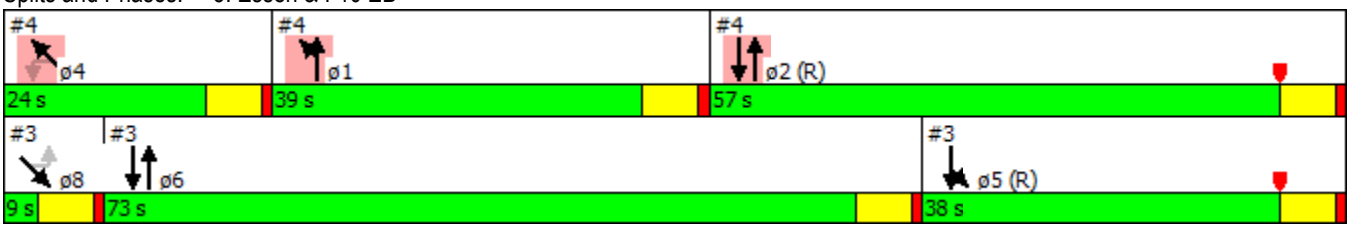
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	0	1934	482	334	1394	0	12	0	945	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		0	0		800	0		0
Storage Lanes	1		0	2		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.86	0.86	0.97	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt		0.970							0.850			
Flt Protected				0.950			0.950	0.950				
Satd. Flow (prot)	0	6216	0	3433	3539	0	1681	1681	1583	0	0	0
Flt Permitted				0.950			0.950	0.950				
Satd. Flow (perm)	0	6216	0	3433	3539	0	1681	1681	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		85							245			
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		721			409			1012			1106	
Travel Time (s)		10.9			6.2			23.0			25.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	2102	524	363	1515	0	13	0	1027	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	0	2626	0	363	1515	0	6	7	1027	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2		1	1	0			
Detector Template							Left					
Leading Detector (ft)		162		45	162		20	45	0			
Trailing Detector (ft)		156		0	156		0	0	0			
Detector 1 Position(ft)		-6		0	-6		0	0	0			
Detector 1 Size(ft)		51		45	51		20	45	20			
Detector 1 Type		Call		Cl+Ex	Call		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Queue (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Delay (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA		Prot	NA		Perm	NA	Free			
Protected Phases		6		5	5 6			8				
Permitted Phases							8		Free			
Detector Phase		6		5	5 6		8	8				

Lane Group	ø1	ø2	ø4
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	1	2	4
Permitted Phases			
Detector Phase			

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)		10.0		3.0			3.0	3.0				
Minimum Split (s)		16.0		9.0			9.0	9.0				
Total Split (s)		73.0		38.0			9.0	9.0				
Total Split (%)		60.8%		31.7%			7.5%	7.5%				
Maximum Green (s)		67.0		32.0			3.0	3.0				
Yellow Time (s)		5.0		5.0			5.0	5.0				
All-Red Time (s)		1.0		1.0			1.0	1.0				
Lost Time Adjust (s)		0.0		0.0			0.0	0.0				
Total Lost Time (s)		6.0		6.0			6.0	6.0				
Lead/Lag		Lag					Lead	Lead				
Lead-Lag Optimize?		Yes					Yes	Yes				
Vehicle Extension (s)		4.0		2.5			2.0	2.0				
Minimum Gap (s)		2.0		0.2			0.2	0.2				
Time Before Reduce (s)		10.0		0.0			0.0	0.0				
Time To Reduce (s)		20.0		0.0			0.0	0.0				
Recall Mode		None		C-Max			Max	Max				
Act Effct Green (s)		62.6		36.4	105.0		3.0	3.0	120.0			
Actuated g/C Ratio		0.52		0.30	0.88		0.02	0.02	1.00			
v/c Ratio		0.80		0.35	0.49		0.14	0.17	0.65			
Control Delay		19.0		18.5	6.3		64.7	66.2	2.1			
Queue Delay		0.2		0.0	0.4		0.0	0.0	0.0			
Total Delay		19.2		18.5	6.7		64.7	66.2	2.1			
LOS		B		B	A		E	E	A			
Approach Delay		19.2			9.0			2.9				
Approach LOS		B			A			A				
Queue Length 50th (ft)		492		94	153		5	5	0			
Queue Length 95th (ft)		68		106	195		21	23	0			
Internal Link Dist (ft)		641			329			932			1026	
Turn Bay Length (ft)									800			
Base Capacity (vph)		3508		1041	3052		42	42	1583			
Starvation Cap Reductn		244		0	885		0	0	0			
Spillback Cap Reductn		206		0	0		0	0	0			
Storage Cap Reductn		0		0	0		0	0	0			
Reduced v/c Ratio		0.80		0.35	0.70		0.14	0.17	0.65			

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 36 (30%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 12.7		Intersection LOS: B	
Intersection Capacity Utilization 64.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Essen & I-10 EB



Lane Group	ø1	ø2	ø4
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	39.0	57.0	24.0
Total Split (%)	33%	48%	20%
Maximum Green (s)	33.0	51.0	18.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes
Vehicle Extension (s)	2.5	4.0	4.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	None	C-Max	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	511	1435	0	0	1516	75	0	0	0	212	0	278
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	550		200	0		0	750		0
Storage Lanes	2		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.86	0.86	1.00	1.00	1.00	0.95	0.95	1.00
Frt					0.993							0.850
Flt Protected	0.950									0.950	0.950	
Satd. Flow (prot)	3433	3539	0	0	6363	0	0	0	0	1681	1681	1583
Flt Permitted	0.950									0.950	0.950	
Satd. Flow (perm)	3433	3539	0	0	6363	0	0	0	0	1681	1681	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10							245
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		409			805			936			1390	
Travel Time (s)		6.2			12.2			21.3			31.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	555	1560	0	0	1648	82	0	0	0	230	0	302
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	555	1560	0	0	1730	0	0	0	0	115	115	302
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			20			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2					1	1	0
Detector Template										Left		
Leading Detector (ft)	45	162			162					20	45	0
Trailing Detector (ft)	0	156			156					0	0	0
Detector 1 Position(ft)	0	-6			-6					0	0	0
Detector 1 Size(ft)	45	51			51					20	45	20
Detector 1 Type	Cl+Ex	Call			Call					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA			NA					Perm	NA	Free
Protected Phases	1	1 2			2						4	
Permitted Phases										4		Free
Detector Phase	1	1 2			2					4	4	

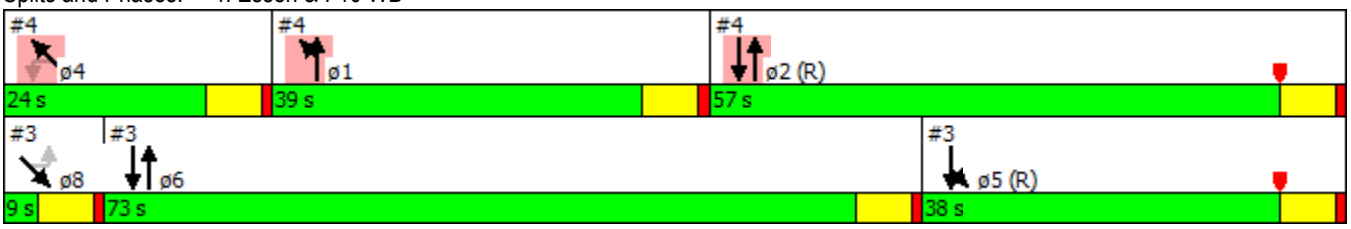
Lane Group	ø5	ø6	ø8
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	5	6	8
Permitted Phases			
Detector Phase			

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0				10.0					3.0	3.0	
Minimum Split (s)	9.0				16.0					9.0	9.0	
Total Split (s)	39.0				57.0					24.0	24.0	
Total Split (%)	32.5%				47.5%					20.0%	20.0%	
Maximum Green (s)	33.0				51.0					18.0	18.0	
Yellow Time (s)	5.0				5.0					5.0	5.0	
All-Red Time (s)	1.0				1.0					1.0	1.0	
Lost Time Adjust (s)	0.0				0.0					0.0	0.0	
Total Lost Time (s)	6.0				6.0					6.0	6.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?	Yes									Yes	Yes	
Vehicle Extension (s)	2.5				4.0					4.0	4.0	
Minimum Gap (s)	0.2				2.0					0.2	0.2	
Time Before Reduce (s)	0.0				10.0					0.0	0.0	
Time To Reduce (s)	0.0				20.0					0.0	0.0	
Recall Mode	None				C-Max					None	None	
Act Effct Green (s)	29.0	93.9			59.0					14.1	14.1	120.0
Actuated g/C Ratio	0.24	0.78			0.49					0.12	0.12	1.00
v/c Ratio	0.67	0.56			0.55					0.58	0.58	0.19
Control Delay	33.9	6.5			21.5					61.7	61.7	0.3
Queue Delay	0.3	2.0			0.0					0.0	0.0	0.0
Total Delay	34.2	8.6			21.5					61.7	61.7	0.3
LOS	C	A			C					E	E	A
Approach Delay		15.3			21.5						26.8	
Approach LOS		B			C						C	
Queue Length 50th (ft)	105	662			251					89	89	0
Queue Length 95th (ft)	190	548			215					151	151	0
Internal Link Dist (ft)		329			725			856			1310	
Turn Bay Length (ft)										750		
Base Capacity (vph)	952	2746			3131					252	252	1583
Starvation Cap Reductn	74	987			0					0	0	0
Spillback Cap Reductn	0	0			0					0	0	0
Storage Cap Reductn	0	0			0					0	0	0
Reduced v/c Ratio	0.63	0.89			0.55					0.46	0.46	0.19

Intersection Summary

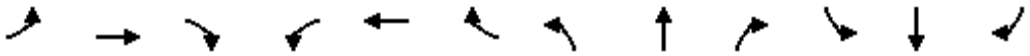
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 36 (30%), Referenced to phase 2:NBSB and 5:, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 19.2 Intersection LOS: B
Intersection Capacity Utilization 64.0% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 4: Essen & I-10 WB

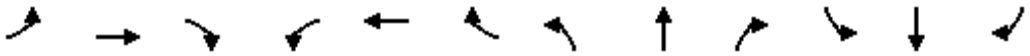


Lane Group	ø5	ø6	ø8
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	38.0	73.0	9.0
Total Split (%)	32%	61%	8%
Maximum Green (s)	32.0	67.0	3.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lead
Lead-Lag Optimize?		Yes	Yes
Vehicle Extension (s)	2.5	4.0	2.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	C-Max	None	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary



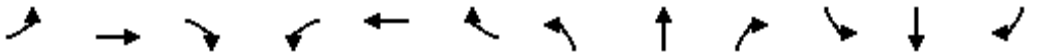
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	100	8	85	85	0	200	49	2151	66	187	2042	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	300		0	150		200	200		0
Storage Lanes	2		0	2		1	1		1	1		0
Taper Length (ft)	25			25			100			50		
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Frt		0.863				0.850			0.850		0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	1608	0	3433	1863	1583	1770	5085	1583	1770	5050	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1608	0	3433	1863	1583	1770	5085	1583	1770	5050	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		92									10	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1095			896			1095			476	
Travel Time (s)		24.9			20.4			16.6			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	9	92	92	0	217	53	2338	72	203	2220	101
Shared Lane Traffic (%)												
Lane Group Flow (vph)	109	101	0	92	0	217	53	2338	72	203	2321	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left		Right			Right			
Leading Detector (ft)	45	45		20	45	20	45	162	20	45	162	
Trailing Detector (ft)	0	0		0	0	0	0	156	0	0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6	0	0	-6	
Detector 1 Size(ft)	45	45		20	45	20	45	51	20	45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot		Free	Prot	NA	pt+ov	Prot	NA	
Protected Phases	3	8		7	4		1	6	6 7	5	2	
Permitted Phases						Free						
Detector Phase	3	8		7	4		1	6	6 7	5	2	



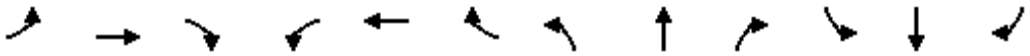
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	5.0		4.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	10.0	11.0		10.0	11.0		11.0	21.0		11.0	21.0	
Total Split (s)	12.0	13.0		14.0	15.0		15.0	66.0		27.0	78.0	
Total Split (%)	10.0%	10.8%		11.7%	12.5%		12.5%	55.0%		22.5%	65.0%	
Maximum Green (s)	6.0	7.0		8.0	9.0		9.0	60.0		21.0	72.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	2.0		3.0	2.0		2.0	2.5		2.0	2.0	
Minimum Gap (s)	3.0	0.2		3.0	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	19.5	5.8		7.7		120.0	7.4	65.2	78.9	17.3	77.1	
Actuated g/C Ratio	0.16	0.05		0.06		1.00	0.06	0.54	0.66	0.14	0.64	
v/c Ratio	0.20	0.61		0.42		0.14	0.49	0.85	0.07	0.80	0.71	
Control Delay	43.9	29.6		59.9		0.2	61.9	26.1	5.9	78.9	9.4	
Queue Delay	0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.1	
Total Delay	43.9	29.6		59.9		0.2	61.9	26.1	5.9	78.9	9.5	
LOS	D	C		E		A	E	C	A	E	A	
Approach Delay		37.1						26.3			15.1	
Approach LOS		D						C			B	
Queue Length 50th (ft)	38	7		35		0	41	458	17	137	548	
Queue Length 95th (ft)	64	63		63		0	m49	m449	m23	225	43	
Internal Link Dist (ft)		1015			816			1015			396	
Turn Bay Length (ft)	200			300			150		200	200		
Base Capacity (vph)	558	180		232		1583	132	2762	1046	309	3250	
Starvation Cap Reductn	0	0		0		0	0	0	0	0	137	
Spillback Cap Reductn	0	0		0		0	0	0	0	0	0	
Storage Cap Reductn	0	0		0		0	0	0	0	0	0	
Reduced v/c Ratio	0.20	0.56		0.40		0.14	0.40	0.85	0.07	0.66	0.75	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 92 (77%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 21.1		Intersection LOS: C	
Intersection Capacity Utilization 76.4%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Essen & Dijon/Dijon Ext



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	5	5	67	5	61	1	2351	102	77	2253	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	100		0	350		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			150		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.964				0.850		0.994			0.999	
Flt Protected		0.977			0.955		0.950			0.950		
Satd. Flow (prot)	0	1754	0	0	1779	1583	1770	5055	0	1770	5080	0
Flt Permitted		0.833			0.726		0.950			0.950		
Satd. Flow (perm)	0	1496	0	0	1352	1583	1770	5055	0	1770	5080	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		5						10			1	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		496			1336			476			721	
Travel Time (s)		11.3			30.4			7.2			10.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	5	5	73	5	66	1	2555	111	84	2449	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	19	0	0	78	66	1	2666	0	84	2461	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45	45	20	144		45	162	
Trailing Detector (ft)	0	0		0	0	0	0	138		0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	20	45		20	45	45	20	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								138			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases		8			4	4 5	1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4	4 5	1	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		4.0	15.0		3.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	21.0		9.0	21.0	
Total Split (s)	21.0	21.0		21.0	21.0		11.0	81.0		18.0	88.0	
Total Split (%)	17.5%	17.5%		17.5%	17.5%		9.2%	67.5%		15.0%	73.3%	
Maximum Green (s)	15.0	15.0		15.0	15.0		5.0	75.0		12.0	82.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		3.0	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)		10.9			10.9	26.5	5.4	81.5		9.6	94.9	
Actuated g/C Ratio		0.09			0.09	0.22	0.04	0.68		0.08	0.79	
v/c Ratio		0.13			0.63	0.19	0.01	0.78		0.60	0.61	
Control Delay		41.0			74.2	37.1	52.0	7.6		76.7	4.5	
Queue Delay		0.0			0.0	0.0	0.0	0.1		0.0	0.1	
Total Delay		41.0			74.2	37.1	52.0	7.7		76.7	4.6	
LOS		D			E	D	D	A		E	A	
Approach Delay		41.0			57.2			7.7			7.0	
Approach LOS		D			E			A			A	
Queue Length 50th (ft)		10			59	41	1	159		64	55	
Queue Length 95th (ft)		33			109	76	m2	60		m102	553	
Internal Link Dist (ft)		416			1256			396			641	
Turn Bay Length (ft)						100	100			350		
Base Capacity (vph)		191			169	363	80	3434		177	4015	
Starvation Cap Reductn		0			0	0	0	76		0	359	
Spillback Cap Reductn		0			0	0	0	0		0	391	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.10			0.46	0.18	0.01	0.79		0.47	0.68	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 105 (88%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 8.8		Intersection LOS: A	
Intersection Capacity Utilization 74.6%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 9: Essen & Essen Park

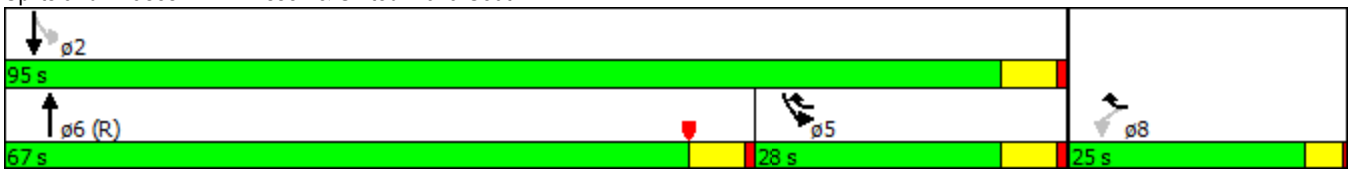
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	323	229	1507	207	137	1268
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		0	150	
Storage Lanes	2	1		0	1	
Taper Length (ft)	25				100	
Lane Util. Factor	0.97	1.00	0.91	0.91	1.00	0.95
Frt		0.850	0.982			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	4994	0	1770	3539
Flt Permitted	0.950				0.072	
Satd. Flow (perm)	3433	1583	4994	0	134	3539
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			30			
Link Speed (mph)	30		45			45
Link Distance (ft)	1306		805			993
Travel Time (s)	29.7		12.2			15.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	351	249	1638	225	149	1378
Shared Lane Traffic (%)						
Lane Group Flow (vph)	351	249	1863	0	149	1378
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	52		20			25
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2		1	2
Detector Template						
Leading Detector (ft)	45	45	162		45	162
Trailing Detector (ft)	0	0	156		0	256
Detector 1 Position(ft)	0	0	-6		0	-6
Detector 1 Size(ft)	45	45	51		45	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			156			256
Detector 2 Size(ft)			6			-94
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm	pt+ov	NA		pm+pt	NA
Protected Phases		5 8	6		5	2
Permitted Phases	8				2	
Detector Phase	8	5 8	6		5	2

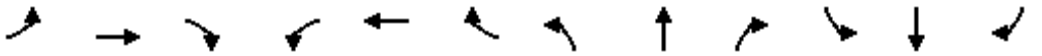
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	4.0		15.0		5.0	15.0
Minimum Split (s)	20.0		21.0		11.0	21.0
Total Split (s)	25.0		67.0		28.0	95.0
Total Split (%)	20.8%		55.8%		23.3%	79.2%
Maximum Green (s)	21.0		61.0		22.0	89.0
Yellow Time (s)	3.5		5.0		5.0	5.0
All-Red Time (s)	0.5		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.0		6.0		6.0	6.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		5.0		2.0	5.0
Minimum Gap (s)	3.0		3.0		0.2	3.0
Time Before Reduce (s)	0.0		15.0		0.0	15.0
Time To Reduce (s)	0.0		15.0		0.0	15.0
Recall Mode	None		C-Min		None	Min
Walk Time (s)	5.0					
Flash Dont Walk (s)	11.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	17.5	39.7	68.3		92.5	92.5
Actuated g/C Ratio	0.15	0.33	0.57		0.77	0.77
v/c Ratio	0.70	0.48	0.65		0.43	0.51
Control Delay	56.2	33.9	4.9		23.7	3.3
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	56.2	33.9	4.9		23.7	3.3
LOS	E	C	A		C	A
Approach Delay	47.0		4.9			5.3
Approach LOS	D		A			A
Queue Length 50th (ft)	135	151	39		34	92
Queue Length 95th (ft)	178	208	331		114	110
Internal Link Dist (ft)	1226		725			913
Turn Bay Length (ft)		100			150	
Base Capacity (vph)	605	549	2862		407	2731
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.58	0.45	0.65		0.37	0.50

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 31 (26%), Referenced to phase 6:NBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 11.4	Intersection LOS: B
Intersection Capacity Utilization 63.9%	ICU Level of Service B

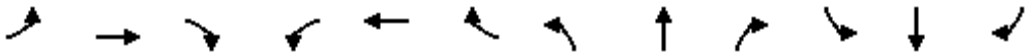
Analysis Period (min) 15

Splits and Phases: 17: Essen & United Plaza South





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	774	82	97	108	81	212	79	1280	55	258	1414	540
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	425		50	280		280	150		0	550		300
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	100			200			25			100		
Lane Util. Factor	0.91	0.91	1.00	0.95	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Frt			0.850			0.850		0.994				0.850
Flt Protected	0.950	0.965		0.950	0.992		0.950			0.950		
Satd. Flow (prot)	3221	1636	1583	1681	1755	1583	1770	5055	0	1770	5085	1583
Flt Permitted	0.950	0.965		0.950	0.992		0.161			0.161		
Satd. Flow (perm)	3221	1636	1583	1681	1755	1583	300	5055	0	300	5085	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								5				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1908			1396			1335			1095	
Travel Time (s)		43.4			31.7			20.2			16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	841	89	105	117	88	230	86	1391	60	280	1537	587
Shared Lane Traffic (%)	27%			14%								
Lane Group Flow (vph)	614	316	105	101	104	230	86	1451	0	280	1537	587
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		45			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	0	1	1	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	0	45	45	45	45	162		45	162	0
Trailing Detector (ft)	0	0	0	0	0	0	0	156		0	156	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	-6		0	-6	-6
Detector 1 Size(ft)	45	45	20	45	45	45	45	51		45	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Call
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	pm+pt	NA		pm+pt	NA	pt+ov
Protected Phases	8	8	8 1	4	4	4 5	1	6		5	2	2 8
Permitted Phases							6			2		
Detector Phase	8	8	8 1	4	4	4 5	1	6		5	2	2 8

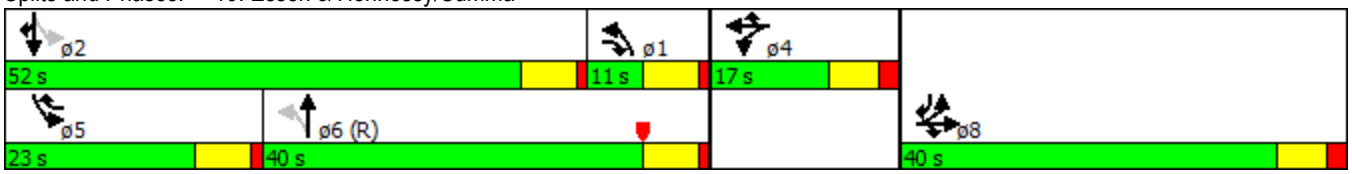


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.5	14.5		14.5	14.5		9.0	21.0		9.0	21.0	
Total Split (s)	40.0	40.0		17.0	17.0		11.0	40.0		23.0	52.0	
Total Split (%)	33.3%	33.3%		14.2%	14.2%		9.2%	33.3%		19.2%	43.3%	
Maximum Green (s)	33.5	33.5		10.5	10.5		5.0	34.0		17.0	46.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	31.6	31.6	42.4	10.5	10.5	26.7	36.2	36.2		41.6	41.6	79.8
Actuated g/C Ratio	0.26	0.26	0.35	0.09	0.09	0.22	0.30	0.30		0.35	0.35	0.66
v/c Ratio	0.72	0.73	0.19	0.69	0.68	0.65	0.38	0.95		0.91	0.87	0.56
Control Delay	45.5	51.1	19.0	77.0	75.5	31.8	33.1	41.5		66.6	32.1	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	45.5	51.1	19.0	77.0	75.5	31.8	33.1	41.5		66.6	32.1	11.6
LOS	D	D	B	E	E	C	C	D		E	C	B
Approach Delay		44.5			52.8			41.0			31.1	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	232	240	37	81	83	76	50	~426		135	239	165
Queue Length 95th (ft)	301	356	73	#168	#168	134	m#73	#534		#298	297	256
Internal Link Dist (ft)		1828			1316			1255			1015	
Turn Bay Length (ft)	425		50	280		280	150			550		300
Base Capacity (vph)	899	456	583	147	153	356	228	1528		312	1949	1099
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.68	0.69	0.18	0.69	0.68	0.65	0.38	0.95		0.90	0.79	0.53

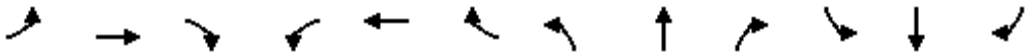
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 85 (71%), Referenced to phase 6:NBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 38.2		Intersection LOS: D	
Intersection Capacity Utilization 78.1%		ICU Level of Service D	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Essen & Hennessy/Summa



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	204	126	185	67	84	69	143	1141	81	91	1367	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	150		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.911			0.932			0.990			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1697	0	1770	1736	0	1770	5034	0	1770	5004	0
Flt Permitted	0.553			0.240			0.950			0.950		
Satd. Flow (perm)	1030	1697	0	447	1736	0	1770	5034	0	1770	5004	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		64			36			12			20	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1062			1416			1475			1335	
Travel Time (s)		24.1			32.2			22.3			20.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	222	137	201	73	91	75	155	1240	88	99	1486	174
Shared Lane Traffic (%)												
Lane Group Flow (vph)	222	338	0	73	166	0	155	1328	0	99	1660	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template												
Leading Detector (ft)	45	45		45	45		45	162		45	162	
Trailing Detector (ft)	0	0		0	0		0	156		0	156	
Detector 1 Position(ft)	0	0		0	0		0	-6		0	-6	
Detector 1 Size(ft)	45	45		45	45		45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4		1	6		5	2	

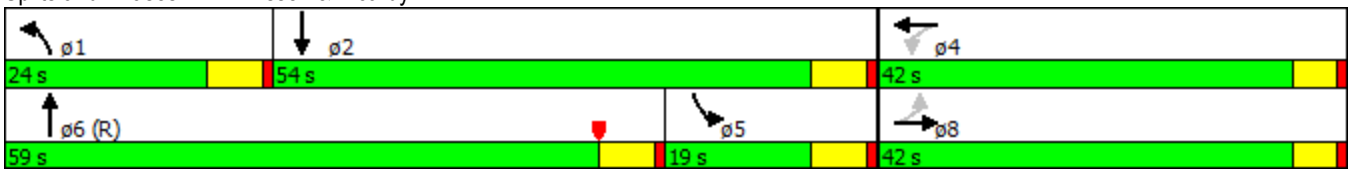


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		2.0	15.0		3.0	15.0	
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	21.0		9.0	21.0	
Total Split (s)	42.0	42.0		42.0	42.0		24.0	59.0		19.0	54.0	
Total Split (%)	35.0%	35.0%		35.0%	35.0%		20.0%	49.2%		15.8%	45.0%	
Maximum Green (s)	37.0	37.0		37.0	37.0		18.0	53.0		13.0	48.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Act Effct Green (s)	28.4	28.4		28.4	28.4		14.7	61.6		13.0	60.0	
Actuated g/C Ratio	0.24	0.24		0.24	0.24		0.12	0.51		0.11	0.50	
v/c Ratio	0.91	0.75		0.70	0.38		0.72	0.51		0.52	0.66	
Control Delay	82.8	44.2		72.6	30.7		68.8	21.0		32.3	6.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	82.8	44.2		72.6	30.7		68.8	21.0		32.3	6.5	
LOS	F	D		E	C		E	C		C	A	
Approach Delay		59.5			43.5			26.0			7.9	
Approach LOS		E			D			C			A	
Queue Length 50th (ft)	167	198		51	83		116	241		68	56	
Queue Length 95th (ft)	#251	281		103	135		185	325		m86	88	
Internal Link Dist (ft)		982			1336			1395			1255	
Turn Bay Length (ft)	225			150			150			150		
Base Capacity (vph)	317	567		137	560		265	2590		191	2510	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.70	0.60		0.53	0.30		0.58	0.51		0.52	0.66	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 72 (60%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 23.8		Intersection LOS: C	
Intersection Capacity Utilization 77.9%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Essen & Picardy



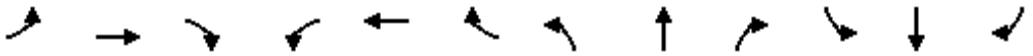
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	90	175	1634	86	163	1127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	125		125	125	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.88	0.91	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2787	5085	1583	1770	3539
Flt Permitted	0.950				0.090	
Satd. Flow (perm)	1770	2787	5085	1583	168	3539
Right Turn on Red		Yes		No		
Satd. Flow (RTOR)		190				
Link Speed (mph)	30		45			45
Link Distance (ft)	1179		993			571
Travel Time (s)	26.8		15.0			8.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	98	190	1776	93	177	1225
Shared Lane Traffic (%)						
Lane Group Flow (vph)	98	190	1776	93	177	1225
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	42		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template						
Leading Detector (ft)	45	45	162	45	45	162
Trailing Detector (ft)	0	0	156	0	0	284
Detector 1 Position(ft)	0	0	-6	0	0	-6
Detector 1 Size(ft)	45	45	51	45	45	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			156			284
Detector 2 Size(ft)			6			-122
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	pt+ov	pm+pt	NA
Protected Phases	4		6	6 4	5	2
Permitted Phases		4			2	
Detector Phase	4	4	6	6 4	5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	5.0	5.0	15.0		3.0	15.0
Minimum Split (s)	11.0	11.0	21.0		9.0	21.0
Total Split (s)	23.0	23.0	71.0		26.0	97.0
Total Split (%)	19.2%	19.2%	59.2%		21.7%	80.8%
Maximum Green (s)	17.0	17.0	65.0		20.0	91.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0
Recall Mode	None	None	C-Min		None	Min
Act Effct Green (s)	11.0	11.0	80.7	97.7	97.0	97.0
Actuated g/C Ratio	0.09	0.09	0.67	0.81	0.81	0.81
v/c Ratio	0.60	0.44	0.52	0.07	0.65	0.43
Control Delay	67.3	10.2	4.0	0.8	34.7	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	67.3	10.2	4.0	0.8	34.7	1.9
LOS	E	B	A	A	C	A
Approach Delay	29.6		3.9			6.1
Approach LOS	C		A			A
Queue Length 50th (ft)	74	0	67	1	37	34
Queue Length 95th (ft)	127	37	79	m7	118	30
Internal Link Dist (ft)	1099		913			491
Turn Bay Length (ft)		125		125	125	
Base Capacity (vph)	250	557	3417	1367	402	2860
Starvation Cap Reductn	0	0	0	0	0	390
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.34	0.52	0.07	0.44	0.50

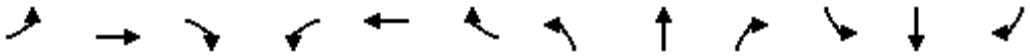
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 42 (35%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 6.8		Intersection LOS: A	
Intersection Capacity Utilization 60.6%		ICU Level of Service B	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 28: Essen & United Plaza North



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	46	1	23	78	3	148	9	1742	56	166	1191	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		100	175		0	150		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	0.95
Frt		0.856				0.850		0.995			0.995	
Flt Protected	0.950				0.954		0.950			0.950		
Satd. Flow (prot)	1770	1595	0	0	1777	1583	1770	5060	0	1770	3522	0
Flt Permitted	0.700				0.714		0.204			0.063		
Satd. Flow (perm)	1304	1595	0	0	1330	1583	380	5060	0	117	3522	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		25						6			5	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		757			843			571			472	
Travel Time (s)		17.2			19.2			8.7			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	50	1	25	85	3	161	10	1893	61	180	1295	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	50	26	0	0	88	161	10	1954	0	180	1337	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	4	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	162		45	390	
Trailing Detector (ft)	0	0		0	0	0	0	156		0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	45	45		20	45	45	45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Detector 3 Position(ft)											308	
Detector 3 Size(ft)											6	
Detector 3 Type											Cl+Ex	
Detector 3 Channel												



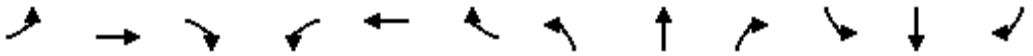
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 3 Extend (s)											0.0	
Detector 4 Position(ft)											384	
Detector 4 Size(ft)											6	
Detector 4 Type											Cl+Ex	
Detector 4 Channel												
Detector 4 Extend (s)											0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		8		7	4	4 5	1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4	4 5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	31.0		11.0	31.0	
Total Split (s)	17.0	17.0		11.0	28.0		11.0	67.0		25.0	81.0	
Total Split (%)	14.2%	14.2%		9.2%	23.3%		9.2%	55.8%		20.8%	67.5%	
Maximum Green (s)	11.0	11.0		5.0	22.0		5.0	61.0		19.0	75.0	
Yellow Time (s)	4.5	4.5		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		2.0	2.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lead		Lag			Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	3.0		0.2	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	13.6	13.6			13.6	30.3	78.7	77.7		91.6	91.6	
Actuated g/C Ratio	0.11	0.11			0.11	0.25	0.66	0.65		0.76	0.76	
v/c Ratio	0.34	0.13			0.59	0.40	0.03	0.60		0.76	0.50	
Control Delay	53.9	18.4			65.5	38.5	5.3	5.4		54.6	4.3	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.1	
Total Delay	53.9	18.4			65.5	38.5	5.3	5.4		54.6	4.4	
LOS	D	B			E	D	A	A		D	A	
Approach Delay		41.8			48.0			5.4			10.3	
Approach LOS		D			D			A			B	
Queue Length 50th (ft)	36	1			66	105	1	101		92	111	
Queue Length 95th (ft)	74	27			117	144	m2	62		152	114	
Internal Link Dist (ft)		677			763			491			392	
Turn Bay Length (ft)	75					100	175			150		
Base Capacity (vph)	152	208			243	500	314	3276		350	2690	
Starvation Cap Reductn	0	0			0	0	0	0		0	201	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.33	0.13			0.36	0.32	0.03	0.60		0.51	0.54	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	

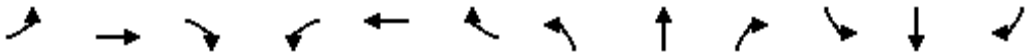
Actuated Cycle Length: 120	
Offset: 32 (27%), Referenced to phase 2:SBTL, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 10.9	Intersection LOS: B
Intersection Capacity Utilization 70.2%	ICU Level of Service C
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 29: Essen & Sholar/Archives



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	285	0	78	0	0	0	0	1211	726	0	1319	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.934							0.850			
Flt Protected	0.950	0.973										
Satd. Flow (prot)	1681	1608	0	0	0	0	0	3539	1583	0	3539	0
Flt Permitted	0.950	0.973										
Satd. Flow (perm)	1681	1608	0	0	0	0	0	3539	1583	0	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36							376			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		995			508			472			1384	
Travel Time (s)		22.6			11.5			7.2			21.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	310	0	85	0	0	0	0	1316	789	0	1434	0
Shared Lane Traffic (%)	35%											
Lane Group Flow (vph)	201	194	0	0	0	0	0	1316	789	0	1434	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1						2	1		2	
Detector Template												
Leading Detector (ft)	45	45						162	45		162	
Trailing Detector (ft)	0	0						156	0		156	
Detector 1 Position(ft)	0	0						-6	0		-6	
Detector 1 Size(ft)	45	45						51	45		51	
Detector 1 Type	Cl+Ex	Cl+Ex						Call	Cl+Ex		Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0		0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA						NA	Free		NA	
Protected Phases		8						6			2	
Permitted Phases	8								Free			
Detector Phase	8	8						6			2	

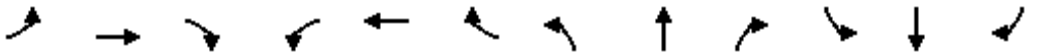


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	10.0	10.0						25.0			25.0	
Minimum Split (s)	17.0	17.0						32.0			32.0	
Total Split (s)	37.0	37.0						83.0			83.0	
Total Split (%)	30.8%	30.8%						69.2%			69.2%	
Maximum Green (s)	30.0	30.0						76.0			76.0	
Yellow Time (s)	5.0	5.0						5.0			5.0	
All-Red Time (s)	2.0	2.0						2.0			2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	7.0	7.0						7.0			7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5						5.0			5.0	
Minimum Gap (s)	0.2	0.2						3.0			3.0	
Time Before Reduce (s)	0.0	0.0						15.0			15.0	
Time To Reduce (s)	0.0	0.0						15.0			15.0	
Recall Mode	None	None						C-Max			Max	
Act Effct Green (s)	19.2	19.2						86.8	120.0		86.8	
Actuated g/C Ratio	0.16	0.16						0.72	1.00		0.72	
v/c Ratio	0.75	0.68						0.51	0.50		0.56	
Control Delay	64.7	49.7						4.2	1.9		9.4	
Queue Delay	0.0	0.0						0.1	0.0		0.0	
Total Delay	64.7	49.7						4.4	1.9		9.4	
LOS	E	D						A	A		A	
Approach Delay		57.3						3.4			9.4	
Approach LOS		E						A			A	
Queue Length 50th (ft)	157	123						35	1		240	
Queue Length 95th (ft)	230	194						157	16		364	
Internal Link Dist (ft)		915			428			392			1304	
Turn Bay Length (ft)	400											
Base Capacity (vph)	420	429						2560	1583		2560	
Starvation Cap Reductn	0	0						334	0		0	
Spillback Cap Reductn	0	0						0	0		0	
Storage Cap Reductn	0	0						0	0		0	
Reduced v/c Ratio	0.48	0.45						0.59	0.50		0.56	

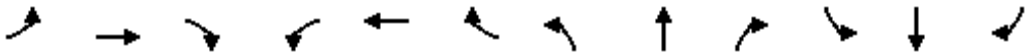
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 37 (31%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 11.0		Intersection LOS: B	
Intersection Capacity Utilization 58.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 32: Essen & I-12 EB

M.21 2017 BUILD NOON – BLUEBONNET BOULEVARD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	199	822	349	467	817	281	312	941	239	373	647	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		250	325		375	350		0	250		150
Storage Lanes	2		1	2		1	2		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Frt			0.850			0.850		0.970				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3433	0	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3433	0	3433	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								23				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		2445			3864			2201			709	
Travel Time (s)		37.0			58.5			33.3			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	209	865	367	492	860	296	328	991	252	393	681	164
Shared Lane Traffic (%)												
Lane Group Flow (vph)	209	865	367	492	860	296	328	1243	0	393	681	164
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45	45	290		45	290	45
Trailing Detector (ft)	-6	284	-6	-6	284	-6	-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6	-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51	51	51		51	51	51
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		284			284			284			284	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Extend			Extend			Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8		7	4	4 5
Permitted Phases												
Detector Phase	5	2	2 3	1	6	6 7	3	8		7	4	4 5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	10.0		4.0	10.0	
Minimum Split (s)	11.0	34.5		11.0	37.5		11.0	41.0		11.0	41.0	
Total Split (s)	17.0	42.0		27.0	52.0		29.0	59.0		22.0	52.0	
Total Split (%)	11.3%	28.0%		18.0%	34.7%		19.3%	39.3%		14.7%	34.7%	
Maximum Green (s)	10.0	35.5		20.0	45.5		22.0	52.0		15.0	45.0	
Yellow Time (s)	5.0	4.5		5.0	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	6.5		7.0	6.5		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.3		3.0	4.3		3.0	3.9		3.0	3.9	
Minimum Gap (s)	0.2	2.2		0.2	2.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	15.0		0.0	15.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0		0.0	10.0		0.0	10.0	
Recall Mode	None	Min		None	Min		None	Min		None	C-Min	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		23.0			26.0			29.0			29.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	10.0	35.5	70.1	20.0	45.5	67.5	34.1	52.0		15.0	32.9	42.9
Actuated g/C Ratio	0.07	0.24	0.47	0.13	0.30	0.45	0.23	0.35		0.10	0.22	0.29
v/c Ratio	0.92	1.03	0.50	1.08	0.80	0.42	0.42	1.03		1.15	0.88	0.36
Control Delay	109.9	95.0	17.5	123.6	54.8	30.2	52.6	80.9		156.9	67.2	22.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	109.9	95.0	17.5	123.6	54.8	30.2	52.6	80.9		156.9	67.2	22.7
LOS	F	F	B	F	D	C	D	F		F	E	C
Approach Delay		77.4			70.9			75.0			89.8	
Approach LOS		E			E			E			F	
Queue Length 50th (ft)	106	~476	135	~275	408	193	142	~676		~223	290	49
Queue Length 95th (ft)	#186	#612	219	#392	492	277	204	#817		#350	323	129
Internal Link Dist (ft)		2365			3784			2121			629	
Turn Bay Length (ft)	440		250	325		375	350			250		150
Base Capacity (vph)	228	837	739	457	1073	712	780	1205		343	1061	580
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.92	1.03	0.50	1.08	0.80	0.42	0.42	1.03		1.15	0.64	0.28

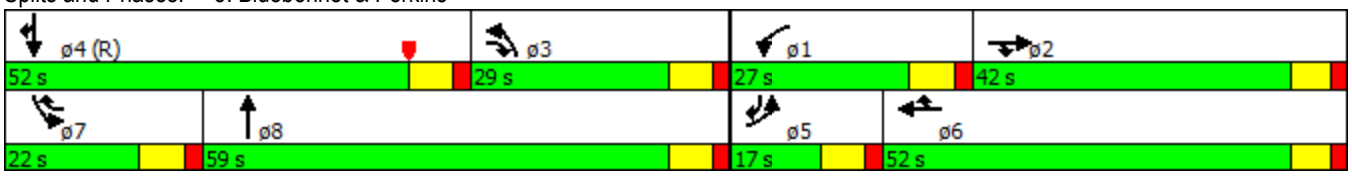
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 52 (35%), Referenced to phase 4:SBT, Start of Yellow			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.15			
Intersection Signal Delay: 77.6		Intersection LOS: E	
Intersection Capacity Utilization 103.2%		ICU Level of Service G	

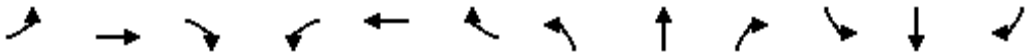
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

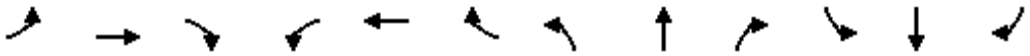
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Bluebonnet & Perkins





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	148	20	48	71	12	184	39	1327	57	345	1057	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		125	160		160	175		0
Storage Lanes	1		0	0		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.894				0.850			0.850		0.986	
Flt Protected	0.950				0.959		0.950			0.950		
Satd. Flow (prot)	1770	1665	0	0	1786	1583	1770	3539	1583	3433	3490	0
Flt Permitted	0.700				0.553		0.950			0.950		
Satd. Flow (perm)	1304	1665	0	0	1030	1583	1770	3539	1583	3433	3490	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		51									12	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		511			1048			709			2556	
Travel Time (s)		11.6			23.8			10.7			38.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	156	21	51	75	13	194	41	1397	60	363	1113	112
Shared Lane Traffic (%)												
Lane Group Flow (vph)	156	72	0	0	88	194	41	1397	60	363	1225	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290	45	45	290	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284	-6	-6	284	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6	-6	-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	
Protected Phases		8		7	4	4 5	1	6	6 7	5	2	
Permitted Phases	8			4								
Detector Phase	8	8		7	4	4 5	1	6	6 7	5	2	



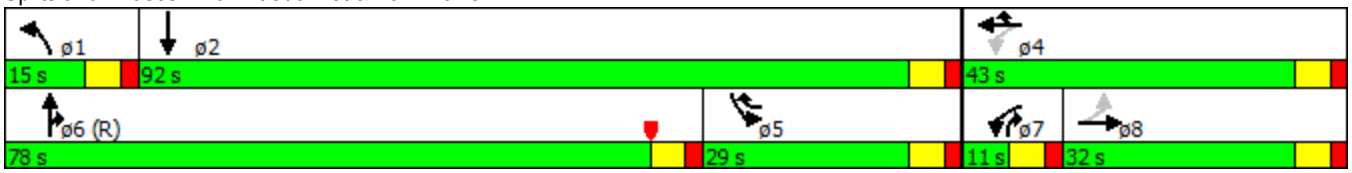
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		3.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	11.0	11.0		9.0	11.0		9.0	21.0		9.0	21.0	
Total Split (s)	32.0	32.0		11.0	43.0		15.0	78.0		29.0	92.0	
Total Split (%)	21.3%	21.3%		7.3%	28.7%		10.0%	52.0%		19.3%	61.3%	
Maximum Green (s)	26.0	26.0		5.0	37.0		9.0	72.0		23.0	86.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		1.5	2.0		1.5	4.0		1.5	4.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	21.5	21.5			30.5	56.0	7.1	82.0	87.0	19.5	96.4	
Actuated g/C Ratio	0.14	0.14			0.20	0.37	0.05	0.55	0.58	0.13	0.64	
v/c Ratio	0.83	0.26			0.38	0.33	0.49	0.72	0.07	0.82	0.55	
Control Delay	95.6	22.7			52.8	33.3	76.3	39.1	10.7	78.3	17.9	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.9	0.0	0.0	0.0	
Total Delay	95.6	22.7			52.8	33.3	76.3	40.0	10.7	78.3	17.9	
LOS	F	C			D	C	E	D	B	E	B	
Approach Delay		72.6			39.4			39.8			31.7	
Approach LOS		E			D			D			C	
Queue Length 50th (ft)	149	18			71	129	40	588	22	180	364	
Queue Length 95th (ft)	#239	64			120	180	m51	m427	m23	232	465	
Internal Link Dist (ft)		431			968			629			2476	
Turn Bay Length (ft)	100					125	160		160	175		
Base Capacity (vph)	226	330			276	643	106	1934	921	526	2251	
Starvation Cap Reductn	0	0			0	0	0	263	0	0	0	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.69	0.22			0.32	0.30	0.39	0.84	0.07	0.69	0.54	

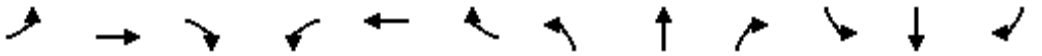
Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 75 (50%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 38.3 Intersection LOS: D
Intersection Capacity Utilization 76.4% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

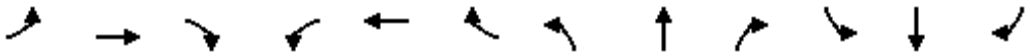
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Bluebonnet & Park Rowe





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	182	14	87	23	6	8	64	1585	10	20	1398	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	475		475	50		0	425		0	130		130
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.914			0.999				0.850
Flt Protected	0.950	0.959		0.950			0.950			0.950		
Satd. Flow (prot)	1681	1697	1583	1770	1703	0	1770	3536	0	1770	3539	1583
Flt Permitted	0.950	0.959		0.950			0.950			0.950		
Satd. Flow (perm)	1681	1697	1583	1770	1703	0	1770	3536	0	1770	3539	1583
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)					8			1				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1004			740			2556			469	
Travel Time (s)		22.8			16.8			38.7			7.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	192	15	92	24	6	8	67	1668	11	21	1472	166
Shared Lane Traffic (%)	46%											
Lane Group Flow (vph)	104	103	92	24	14	0	67	1679	0	21	1472	166
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	45	45	45		45	290		45	290	45
Trailing Detector (ft)	-6	-6	-6	-6	-6		-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6		-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51		51	51		51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA		Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4		1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4		1	6		5	2	2 8



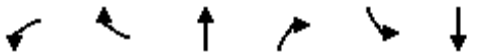
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.5	25.5		8.5	25.5	
Total Split (s)	15.0	15.0		13.0	13.0		13.0	79.0		13.0	79.0	
Total Split (%)	12.5%	12.5%		10.8%	10.8%		10.8%	65.8%		10.8%	65.8%	
Maximum Green (s)	10.0	10.0		8.0	8.0		7.5	73.5		7.5	73.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	6.0		3.0	6.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	10.8	10.8	23.8	8.0	8.0		7.5	85.7		6.7	77.9	90.4
Actuated g/C Ratio	0.09	0.09	0.20	0.07	0.07		0.06	0.71		0.06	0.65	0.75
v/c Ratio	0.69	0.68	0.29	0.20	0.12		0.60	0.66		0.21	0.64	0.14
Control Delay	76.5	75.4	44.1	57.3	37.5		77.6	13.1		53.0	10.4	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	76.5	75.4	44.1	57.3	37.5		77.6	13.1		53.0	10.4	2.4
LOS	E	E	D	E	D		E	B		D	B	A
Approach Delay		66.2			50.0			15.6			10.2	
Approach LOS		E			D			B			B	
Queue Length 50th (ft)	84	83	62	18	4		52	321		17	366	20
Queue Length 95th (ft)	#180	#176	113	47	26		#116	570		m44	235	23
Internal Link Dist (ft)		924			660			2476			389	
Turn Bay Length (ft)	475		475	50			425			130		130
Base Capacity (vph)	151	152	317	119	122		114	2525		110	2296	1191
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.69	0.68	0.29	0.20	0.11		0.59	0.66		0.19	0.64	0.14

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 109 (91%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 17.6		Intersection LOS: B	
Intersection Capacity Utilization 72.9%		ICU Level of Service C	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Bluebonnet & Anselmo



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Lane Configurations									
Volume (vph)	325	130	1322	454	84	1251			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	0	100		150	350				
Storage Lanes	2	1		1	1				
Taper Length (ft)	25				25				
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.91			
Frt		0.850		0.850					
Flt Protected	0.950				0.950				
Satd. Flow (prot)	3433	1583	3539	1583	1770	5085			
Flt Permitted	0.950				0.950				
Satd. Flow (perm)	3433	1583	3539	1583	1770	5085			
Right Turn on Red		No		No					
Satd. Flow (RTOR)									
Link Speed (mph)	30		45			45			
Link Distance (ft)	352		390			974			
Travel Time (s)	8.0		5.9			14.8			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95			
Adj. Flow (vph)	342	137	1392	478	88	1317			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	342	137	1392	478	88	1317			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Right	Left	Left			
Median Width(ft)	35		20			20			
Link Offset(ft)	0		0			0			
Crosswalk Width(ft)	16		16			16			
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Turning Speed (mph)	15	9		9	15				
Number of Detectors	1	1	2	1	1	2			
Detector Template									
Leading Detector (ft)	45	45	290	45	45	290			
Trailing Detector (ft)	-6	-6	284	-6	-6	284			
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			
Detector 1 Size(ft)	51	51	51	51	51	51			
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call			
Detector 1 Channel									
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)			284			284			
Detector 2 Size(ft)			6			6			
Detector 2 Type			Extend			Extend			
Detector 2 Channel									
Detector 2 Extend (s)			0.0			0.0			
Turn Type	Prot	pt+ov	NA	pt+ov	Prot	NA			
Protected Phases	4	4 3	1	1 4	3	2	5	7	8
Permitted Phases									
Detector Phase	4	4 3	1	1 4	3	2			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Switch Phase									
Minimum Initial (s)	4.0		24.0		4.0	34.0	4.0	4.0	29.0
Minimum Split (s)	10.0		30.0		10.0	40.0	10.0	22.0	35.0
Total Split (s)	35.0		72.0		13.0	85.0	55.0	30.0	35.0
Total Split (%)	29.2%		60.0%		10.8%	70.8%	46%	25%	29%
Maximum Green (s)	30.0		66.0		7.0	79.0	49.0	24.0	29.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0			
Total Lost Time (s)	5.0		6.0		6.0	6.0			
Lead/Lag			Lag		Lead		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	
Vehicle Extension (s)	2.5		4.3		2.0	4.3	2.5	3.0	4.3
Minimum Gap (s)	0.2		2.2		0.2	2.2	0.2	3.0	2.2
Time Before Reduce (s)	0.0		20.0		0.0	30.0	0.0	0.0	30.0
Time To Reduce (s)	0.0		15.0		0.0	15.0	0.0	0.0	15.0
Recall Mode	None		C-Min		None	C-Min	Max	None	Min
Walk Time (s)								5.0	
Flash Dont Walk (s)								11.0	
Pedestrian Calls (#/hr)								0	
Act Effct Green (s)	30.0	45.2	63.8	98.8	9.2	79.0			
Actuated g/C Ratio	0.25	0.38	0.53	0.82	0.08	0.66			
v/c Ratio	0.40	0.23	0.74	0.37	0.65	0.39			
Control Delay	19.8	11.0	15.9	2.1	89.9	2.4			
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay	19.8	11.0	15.9	2.1	89.9	2.4			
LOS	B	B	B	A	F	A			
Approach Delay	17.3		12.3			7.9			
Approach LOS	B		B			A			
Queue Length 50th (ft)	58	30	348	29	73	44			
Queue Length 95th (ft)	88	67	143	26	#169	32			
Internal Link Dist (ft)	272		310			894			
Turn Bay Length (ft)		100		150	350				
Base Capacity (vph)	858	595	1946	1269	135	3347			
Starvation Cap Reductn	0	0	0	0	0	0			
Spillback Cap Reductn	0	0	0	0	0	0			
Storage Cap Reductn	0	0	0	0	0	0			
Reduced v/c Ratio	0.40	0.23	0.72	0.38	0.65	0.39			

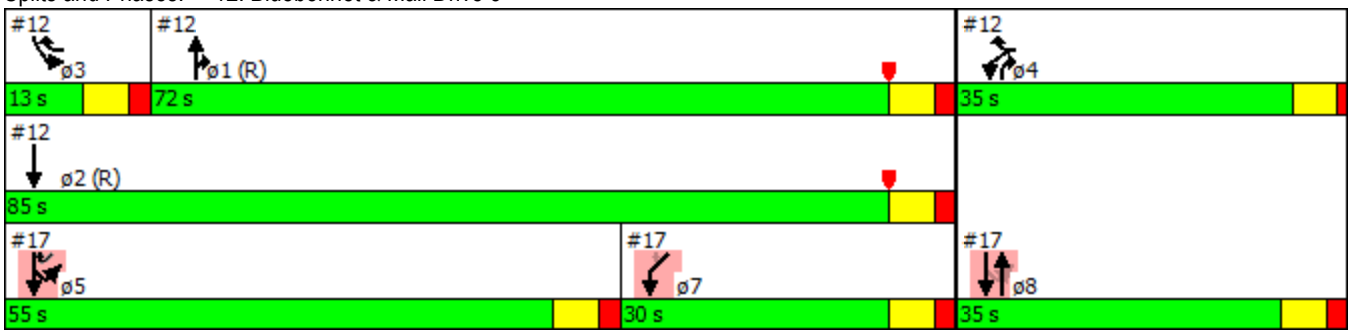
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 108 (90%), Referenced to phase 1:NBT and 2:SBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 11.3		Intersection LOS: B	
Intersection Capacity Utilization 64.6%		ICU Level of Service C	

Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.

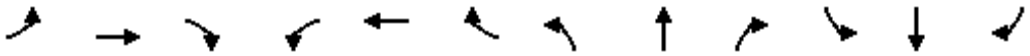
Queue shown is maximum after two cycles.

Splits and Phases: 12: Bluebonnet & Mall Drive 3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	353	129	174	73	140	58	184	1221	48	224	1089	371
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	140		140	200		200	200		160
Storage Lanes	2		0	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		0.914				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3235	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3235	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		183										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1050			403			974			1065	
Travel Time (s)		23.9			9.2			14.8			16.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	372	136	183	77	147	61	194	1285	51	236	1146	391
Shared Lane Traffic (%)												
Lane Group Flow (vph)	372	319	0	77	147	61	194	1285	51	236	1146	391
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			36			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pt+ov
Protected Phases	3	2		9	8	8 6	1	10	10 9	6	5	5 3
Permitted Phases												
Detector Phase	3	2		9	8	8 6	1	10	10 9	6	5	5 3

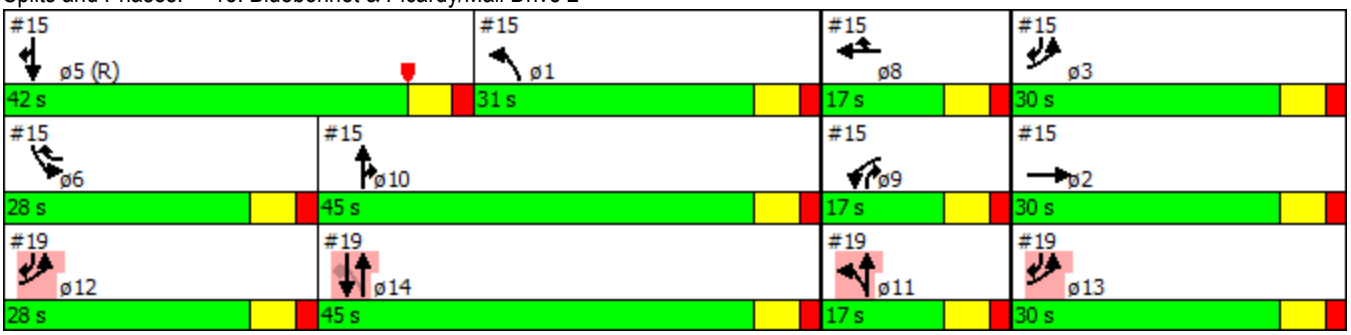
Lane Group	ø11	ø12	ø13	ø14
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	11	12	13	14
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	21.0		3.0	21.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		11.0	27.0		11.0	27.0	
Total Split (s)	30.0	30.0		17.0	17.0		31.0	45.0		28.0	42.0	
Total Split (%)	25.0%	25.0%		14.2%	14.2%		25.8%	37.5%		23.3%	35.0%	
Maximum Green (s)	24.0	24.0		11.0	11.0		25.0	39.0		22.0	36.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.0		1.0	1.0		3.0	4.3		1.0	4.3	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	28.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	15.0	
Recall Mode	None	None		None	None		None	None		None	C-Min	
Act Effct Green (s)	18.8	18.8		8.2	8.6	37.9	19.4	39.2	53.4	29.4	49.2	74.1
Actuated g/C Ratio	0.16	0.16		0.07	0.07	0.32	0.16	0.33	0.44	0.24	0.41	0.62
v/c Ratio	0.69	0.48		0.33	0.58	0.12	0.68	0.77	0.07	0.28	0.55	0.40
Control Delay	54.2	20.8		33.0	39.2	20.3	39.5	21.9	5.2	44.2	11.4	7.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.2	20.8		33.0	39.2	20.3	39.5	21.9	5.2	44.2	11.4	7.4
LOS	D	C		C	D	C	D	C	A	D	B	A
Approach Delay		38.8			33.5			23.5			14.9	
Approach LOS		D			C			C			B	
Queue Length 50th (ft)	142	49		27	57	41	133	141	4	44	28	20
Queue Length 95th (ft)	184	90		m49	91	m69	m183	271	m9	109	146	129
Internal Link Dist (ft)		970			323			894			985	
Turn Bay Length (ft)	150			140		140	200		200	200		160
Base Capacity (vph)	686	793		314	324	554	368	1766	735	887	2085	959
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.40		0.25	0.45	0.11	0.53	0.73	0.07	0.27	0.55	0.41

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 80 (67%), Referenced to phase 5:SBT, Start of Yellow			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 23.1		Intersection LOS: C	
Intersection Capacity Utilization 65.2%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

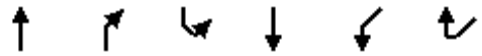
Splits and Phases: 15: Bluebonnet & Picardy/Mall Drive 2



Lane Group	ø11	ø12	ø13	ø14
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	3.0
Minimum Split (s)	10.0	22.0	10.0	9.0
Total Split (s)	17.0	28.0	30.0	45.0
Total Split (%)	14%	23%	25%	38%
Maximum Green (s)	11.0	22.0	24.0	39.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	1.0
Minimum Gap (s)	3.0	3.0	3.0	0.2
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	Max	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

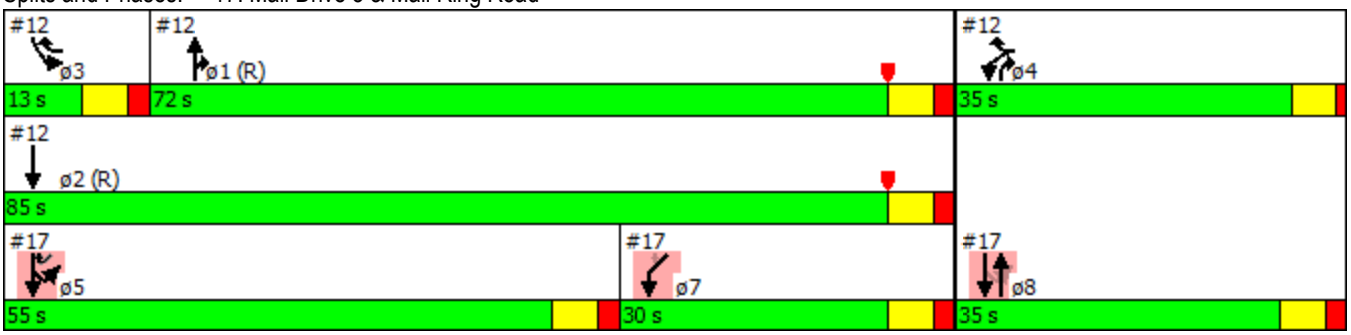
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Lane Configurations										
Volume (vph)	259	154	275	263	190	196				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00				
Frt	0.944					0.850				
Flt Protected			0.950		0.950					
Satd. Flow (prot)	3341	0	1770	1863	1770	1583				
Flt Permitted			0.361		0.950					
Satd. Flow (perm)	3341	0	672	1863	1770	1583				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)	96					213				
Link Speed (mph)	30			30	30					
Link Distance (ft)	797			352	1050					
Travel Time (s)	18.1			8.0	23.9					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Adj. Flow (vph)	282	167	299	286	207	213				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	449	0	299	286	207	213				
Enter Blocked Intersection	No	No	No	No	No	No				
Lane Alignment	Left	Right	Left	Left	Left	Right				
Median Width(ft)	0			12	12					
Link Offset(ft)	0			0	0					
Crosswalk Width(ft)	16			16	16					
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)		9	15		15	9				
Number of Detectors	2		1	2	1	1				
Detector Template	Thru		Left	Thru	Left	Right				
Leading Detector (ft)	100		20	100	20	20				
Trailing Detector (ft)	0		0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0				
Detector 1 Size(ft)	6		20	6	20	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel										
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0				
Detector 2 Position(ft)	94			94						
Detector 2 Size(ft)	6			6						
Detector 2 Type	Cl+Ex			Cl+Ex						
Detector 2 Channel										
Detector 2 Extend (s)	0.0			0.0						
Turn Type	NA		D.P+P	NA	Prot	pm+ov				
Protected Phases	8		5	5 8	7	5	1	2	3	4
Permitted Phases			8			7				
Detector Phase	8		5	5 8	7	5				
Switch Phase										
Minimum Initial (s)	29.0		4.0		4.0	4.0	24.0	34.0	4.0	4.0
Minimum Split (s)	35.0		10.0		22.0	10.0	30.0	40.0	10.0	10.0

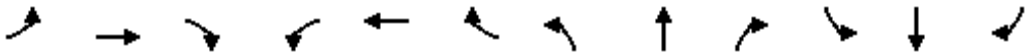


Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Total Split (s)	35.0		55.0		30.0	55.0	72.0	85.0	13.0	35.0
Total Split (%)	29.2%		45.8%		25.0%	45.8%	60%	71%	11%	29%
Maximum Green (s)	29.0		49.0		24.0	49.0	66.0	79.0	7.0	30.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0		2.0	2.0	2.0	2.0	2.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0				
Total Lost Time (s)	6.0		6.0		6.0	6.0				
Lead/Lag			Lead		Lag	Lead	Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	Yes				
Vehicle Extension (s)	4.3		2.5		3.0	2.5	4.3	4.3	2.0	2.5
Minimum Gap (s)	2.2		0.2		3.0	0.2	2.2	2.2	0.2	0.2
Time Before Reduce (s)	30.0		0.0		0.0	0.0	20.0	30.0	0.0	0.0
Time To Reduce (s)	15.0		0.0		0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	Min		Max		None	Max	C-Min	C-Min	None	None
Walk Time (s)					5.0					
Flash Dont Walk (s)					11.0					
Pedestrian Calls (#/hr)					0					
Act Effct Green (s)	29.0		83.2	89.2	18.8	79.0				
Actuated g/C Ratio	0.24		0.69	0.74	0.16	0.66				
v/c Ratio	0.51		0.31	0.21	0.75	0.19				
Control Delay	32.9		11.1	6.9	62.4	6.7				
Queue Delay	0.0		0.5	0.6	0.0	0.0				
Total Delay	32.9		11.6	7.5	62.4	6.7				
LOS	C		B	A	E	A				
Approach Delay	32.9			9.6	34.2					
Approach LOS	C			A	C					
Queue Length 50th (ft)	124		63	60	121	26				
Queue Length 95th (ft)	177		154	145	166	51				
Internal Link Dist (ft)	717			272	970					
Turn Bay Length (ft)										
Base Capacity (vph)	880		961	1384	354	1114				
Starvation Cap Reductn	0		324	754	0	0				
Spillback Cap Reductn	0		0	0	0	0				
Storage Cap Reductn	0		0	0	0	0				
Reduced v/c Ratio	0.51		0.47	0.45	0.58	0.19				

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 108 (90%), Referenced to phase 1:NBT and 2:SBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 23.9		Intersection LOS: C	
Intersection Capacity Utilization 64.9%		ICU Level of Service C	
Analysis Period (min) 15			

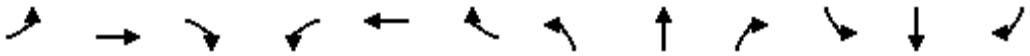
Splits and Phases: 17: Mall Drive 3 & Mall Ring Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	123	1479	30	218	1577	149	0	0	411	157	11	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		200	300		100	0		0	65		0
Storage Lanes	1		1	2		1	0		2	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.865	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1611	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			136			157			191		112	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1065			834			318			371	
Travel Time (s)		16.1			12.6			7.2			8.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	129	1557	32	229	1660	157	0	0	433	165	12	112
Shared Lane Traffic (%)												
Lane Group Flow (vph)	129	1557	32	229	1660	157	0	0	433	165	124	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1			1	1	1	
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45			45	45	45	
Trailing Detector (ft)	-6	284	-6	-6	284	-6			-6	-6	-6	
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			-6	-6	-6	
Detector 1 Size(ft)	51	51	51	51	51	51			51	51	51	
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA	Perm	Prot	NA	custom			Over	Perm	NA	
Protected Phases	1	7		5	4	2			5		2	
Permitted Phases			7			4				2		
Detector Phase	1	7	7	5	4	2			5	2	2	

Lane Group	ø8	ø9	ø10	ø11
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	8	9	10	11
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	14.0	4.0	14.0	4.0			4.0	4.0	4.0	
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	10.0			10.0	10.0	10.0	
Total Split (s)	21.0	61.0	61.0	37.0	77.0	22.0			37.0	22.0	22.0	
Total Split (%)	17.5%	50.8%	50.8%	30.8%	64.2%	18.3%			30.8%	18.3%	18.3%	
Maximum Green (s)	15.0	55.0	55.0	31.0	71.0	16.0			31.0	16.0	16.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0			6.0	6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	4.3	4.3	2.5	4.3	2.0			2.5	2.0	2.0	
Minimum Gap (s)	0.2	2.2	2.2	0.2	2.2	0.2			0.2	0.2	0.2	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	34.0	0.0			0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	15.0	0.0			0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Min	None			None	None	None	
Act Effct Green (s)	27.7	70.6	70.6	16.6	59.5	80.3			16.6	14.8	14.8	
Actuated g/C Ratio	0.23	0.59	0.59	0.14	0.50	0.67			0.14	0.12	0.12	
v/c Ratio	0.32	0.52	0.03	0.48	0.66	0.14			0.79	0.76	0.42	
Control Delay	24.1	9.5	0.0	46.4	21.7	0.8			40.8	72.3	15.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Delay	24.1	9.5	0.0	46.4	21.7	0.8			40.8	72.3	15.3	
LOS	C	A	A	D	C	A			D	E	B	
Approach Delay		10.4			22.9						47.9	
Approach LOS		B			C						D	
Queue Length 50th (ft)	39	166	0	75	415	5			114	124	8	
Queue Length 95th (ft)	m93	147	m0	m98	451	m3			162	#218	65	
Internal Link Dist (ft)		985			754			238			291	
Turn Bay Length (ft)	140		200	300		100				65		
Base Capacity (vph)	408	2993	987	886	3008	1102			861	243	317	
Starvation Cap Reductn	0	0	0	0	0	0			4	0	0	
Spillback Cap Reductn	0	0	0	0	0	0			0	0	0	
Storage Cap Reductn	0	0	0	0	0	0			0	0	0	
Reduced v/c Ratio	0.32	0.52	0.03	0.26	0.55	0.14			0.51	0.68	0.39	

Intersection Summary

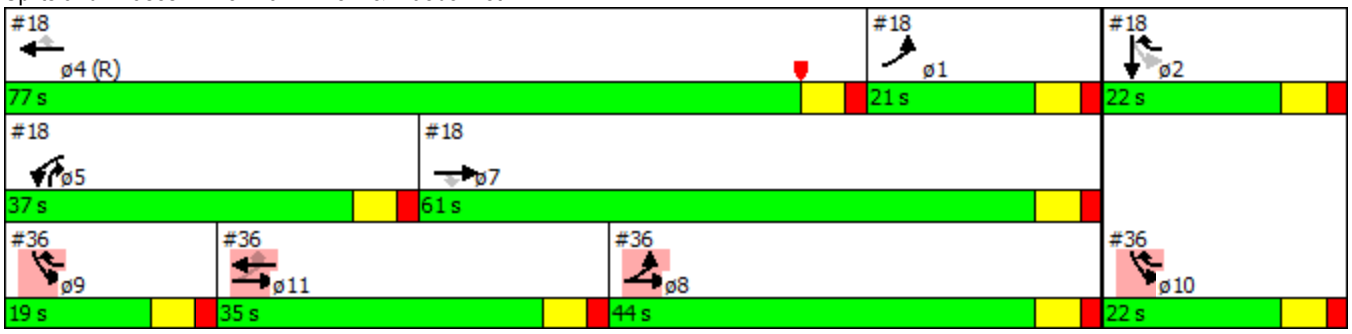
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 103 (86%), Referenced to phase 4:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 21.4 Intersection LOS: C
Intersection Capacity Utilization 66.7% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

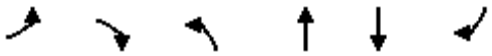
Lane Group	ø8	ø9	ø10	ø11
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	14.0
Minimum Split (s)	22.0	10.0	22.0	20.0
Total Split (s)	44.0	19.0	22.0	35.0
Total Split (%)	37%	16%	18%	29%
Maximum Green (s)	38.0	13.0	16.0	29.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	4.3
Minimum Gap (s)	3.0	3.0	3.0	2.2
Time Before Reduce (s)	0.0	0.0	0.0	34.0
Time To Reduce (s)	0.0	0.0	0.0	15.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 18: Mall Drive 1 & Bluebonnet





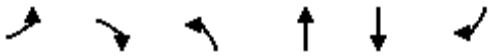
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Lane Configurations												
Volume (vph)	243	158	187	241	228	83						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Frt		0.850				0.850						
Flt Protected	0.950		0.950									
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583						
Flt Permitted	0.950		0.419									
Satd. Flow (perm)	1770	1583	780	1863	1863	1583						
Right Turn on Red		Yes				Yes						
Satd. Flow (RTOR)		172				90						
Link Speed (mph)	30			30	30							
Link Distance (ft)	403			1050	819							
Travel Time (s)	9.2			23.9	18.6							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	264	172	203	262	248	90						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	264	172	203	262	248	90						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Right	Left	Left	Left	Right						
Median Width(ft)	36			12	0							
Link Offset(ft)	0			0	0							
Crosswalk Width(ft)	16			16	16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15	9	15			9						
Number of Detectors	1	1	1	2	2	1						
Detector Template	Left	Right	Left	Thru	Thru	Right						
Leading Detector (ft)	20	20	20	100	100	20						
Trailing Detector (ft)	0	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0	0						
Detector 1 Size(ft)	20	20	20	6	6	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)				94	94							
Detector 2 Size(ft)				6	6							
Detector 2 Type				Cl+Ex	Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)				0.0	0.0							
Turn Type	Prot	Free	D.P+P	NA	NA	pm+ov						
Protected Phases	12 13		11	11 14	14	12 13	1	2	3	5	6	8
Permitted Phases		Free	14			14						
Detector Phase	12 13		11	11 14	14	12 13						
Switch Phase												
Minimum Initial (s)			4.0		3.0		3.0	3.0	3.0	21.0	3.0	3.0
Minimum Split (s)			10.0		9.0		11.0	9.0	9.0	27.0	11.0	9.0

Lane Group	ø9	ø10	ø12	ø13
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	9	10	12	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	21.0	4.0	4.0
Minimum Split (s)	9.0	27.0	22.0	10.0

Lanes, Volumes, Timings
19: Mall Ring Road & Mall Drive 2

2017 Build Noon

5/18/2016

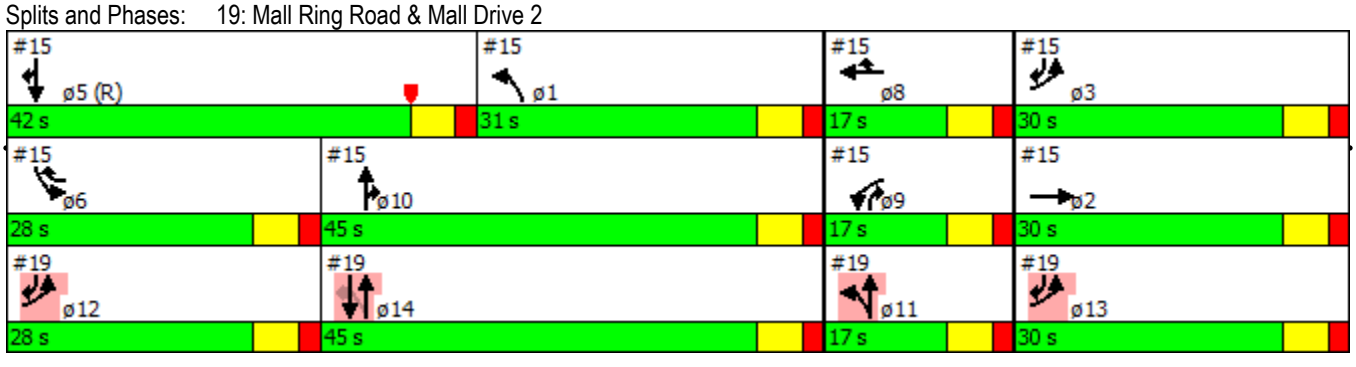


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Total Split (s)			17.0		45.0		31.0	30.0	30.0	42.0	28.0	17.0
Total Split (%)			14.2%		37.5%		26%	25%	25%	35%	23%	14%
Maximum Green (s)			11.0		39.0		25.0	24.0	24.0	36.0	22.0	11.0
Yellow Time (s)			4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)			2.0		2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0		0.0							
Total Lost Time (s)			6.0		6.0							
Lead/Lag					Lag		Lag			Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0		1.0		3.0	1.0	1.5	4.3	1.0	1.0
Minimum Gap (s)			3.0		0.2		0.2	0.2	0.2	2.2	0.2	0.2
Time Before Reduce (s)			0.0		0.0		0.0	0.0	0.0	28.0	0.0	0.0
Time To Reduce (s)			0.0		0.0		0.0	0.0	0.0	15.0	0.0	0.0
Recall Mode			None		None		None	None	None	C-Min	None	None
Act Effct Green (s)	65.3	120.0	36.7	42.7	28.2	99.4						
Actuated g/C Ratio	0.54	1.00	0.31	0.36	0.24	0.83						
v/c Ratio	0.27	0.11	0.66	0.40	0.57	0.07						
Control Delay	9.2	0.1	54.0	37.9	36.9	0.1						
Queue Delay	0.2	0.0	0.0	0.0	0.0	0.0						
Total Delay	9.3	0.1	54.0	37.9	36.9	0.1						
LOS	A	A	D	D	D	A						
Approach Delay	5.7			45.0	27.1							
Approach LOS	A			D	C							
Queue Length 50th (ft)	46	0	132	174	203	0						
Queue Length 95th (ft)	79	0	209	266	275	0						
Internal Link Dist (ft)	323			970	739							
Turn Bay Length (ft)												
Base Capacity (vph)	943	1583	345	722	605	1310						
Starvation Cap Reductn	209	0	0	0	0	0						
Spillback Cap Reductn	0	0	0	0	0	0						
Storage Cap Reductn	0	0	0	0	0	0						
Reduced v/c Ratio	0.36	0.11	0.59	0.36	0.41	0.07						

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 80 (67%), Referenced to phase 5:SBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 26.3 — Intersection LOS: C
Intersection Capacity Utilization 50.8% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 19: Mall Ring Road & Mall Drive 2



Lane Group	ø9	ø10	ø12	ø13
Total Split (s)	17.0	45.0	28.0	30.0
Total Split (%)	14%	38%	23%	25%
Maximum Green (s)	11.0	39.0	22.0	24.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?			Yes	
Vehicle Extension (s)	1.0	4.3	3.0	3.0
Minimum Gap (s)	0.2	0.2	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	Max	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	173	9	635	0	0	0	0	1850	199	294	1309	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		375	0		0	400		0	300		0
Storage Lanes	1		1	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.88	1.00	1.00	1.00	1.00	0.86	1.00	0.97	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950	0.957								0.950		
Satd. Flow (prot)	1681	1694	2787	0	0	0	0	6408	1583	3433	3539	0
Flt Permitted	0.950	0.957								0.950		
Satd. Flow (perm)	1681	1694	2787	0	0	0	0	6408	1583	3433	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			64						209			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1072			1024			834			410	
Travel Time (s)		24.4			23.3			12.6			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	182	9	668	0	0	0	0	1947	209	309	1378	0
Shared Lane Traffic (%)	48%											
Lane Group Flow (vph)	95	96	668	0	0	0	0	1947	209	309	1378	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			37	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					2	1	1	2	
Detector Template												
Leading Detector (ft)	45	45	45					290	45	45	290	
Trailing Detector (ft)	-6	-6	-6					284	-6	-6	284	
Detector 1 Position(ft)	-6	-6	-6					-6	-6	-6	-6	
Detector 1 Size(ft)	51	51	51					51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	custom					NA	Perm	Prot	NA	
Protected Phases	4	4	4 14					2		1	12	
Permitted Phases									2			
Detector Phase	4	4	4 14					2	2	1	12	

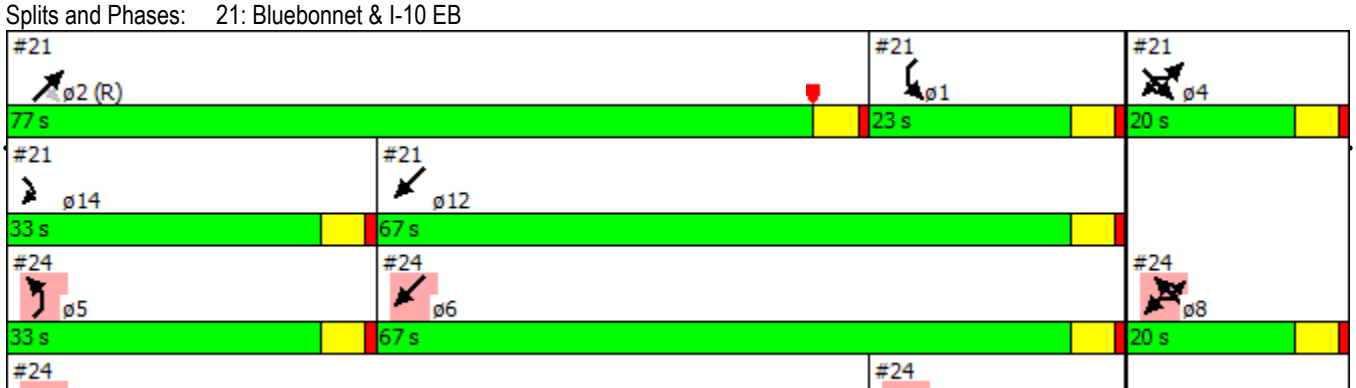
Lane Group	ø5	ø6	ø8	ø14	ø16	ø18
Lane Configurations						
Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	5	6	8	14	16	18
Permitted Phases						
Detector Phase						

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)	3.0	3.0						10.0	10.0	3.0	10.0	
Minimum Split (s)	18.0	18.0						20.0	20.0	8.0	20.0	
Total Split (s)	20.0	20.0						77.0	77.0	23.0	67.0	
Total Split (%)	16.7%	16.7%						64.2%	64.2%	19.2%	55.8%	
Maximum Green (s)	15.0	15.0						72.0	72.0	18.0	62.0	
Yellow Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0	2.0	2.0	6.0	
Recall Mode	None	None						C-Max	C-Max	None	Max	
Act Effct Green (s)	15.0	15.0	48.0					72.0	72.0	18.0	62.0	
Actuated g/C Ratio	0.12	0.12	0.40					0.60	0.60	0.15	0.52	
v/c Ratio	0.45	0.45	0.58					0.51	0.20	0.60	0.75	
Control Delay	56.3	56.4	27.6					10.8	1.8	35.0	8.6	
Queue Delay	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Total Delay	56.3	56.4	27.6					10.8	1.8	35.0	8.6	
LOS	E	E	C					B	A	D	A	
Approach Delay		34.0						9.9			13.5	
Approach LOS		C						A			B	
Queue Length 50th (ft)	72	73	205					180	19	120	70	
Queue Length 95th (ft)	132	133	272					207	7	169	101	
Internal Link Dist (ft)		992			944			754			330	
Turn Bay Length (ft)	375		375							300		
Base Capacity (vph)	210	211	1153					3844	1033	514	1828	
Starvation Cap Reductn	0	0	0					0	0	0	0	
Spillback Cap Reductn	0	0	0					50	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.45	0.45	0.58					0.51	0.20	0.60	0.75	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 31 (26%), Referenced to phase 2:NET, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 15.6 Intersection LOS: B
Intersection Capacity Utilization 68.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 21: Bluebonnet & I-10 EB



Lane Group	ø5	ø6	ø8	ø14	ø16	ø18
Switch Phase						
Minimum Initial (s)	3.0	10.0	3.0	3.0	10.0	4.0
Minimum Split (s)	8.0	20.0	18.0	8.0	20.0	21.0
Total Split (s)	33.0	67.0	20.0	33.0	77.0	23.0
Total Split (%)	28%	56%	17%	28%	64%	19%
Maximum Green (s)	28.0	62.0	15.0	28.0	72.0	18.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?						Yes
Vehicle Extension (s)	3.5	6.0	2.0	3.5	2.0	3.0
Recall Mode	Max	Max	None	Max	Max	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	0	0	168	2	320	557	1466	0	0	1435	198
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		525	300		0	575		575
Storage Lanes	0		0	1		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.95	1.00	1.00	0.91	0.91
Frt						0.850					0.982	
Flt Protected				0.950	0.953		0.950					
Satd. Flow (prot)	0	0	0	1681	1686	1583	3433	3539	0	0	4994	0
Flt Permitted				0.950	0.953		0.950					
Satd. Flow (perm)	0	0	0	1681	1686	1583	3433	3539	0	0	4994	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						64					31	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		894			1008			410			866	
Travel Time (s)		20.3			22.9			6.2			13.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	177	2	337	586	1543	0	0	1511	208
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	0	0	90	89	337	586	1543	0	0	1719	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			40			50	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			2	
Detector Template												
Leading Detector (ft)				45	45	45	45	290			290	
Trailing Detector (ft)				-6	-6	-6	-6	284			284	
Detector 1 Position(ft)				-6	-6	-6	-6	-6			-6	
Detector 1 Size(ft)				51	51	51	51	51			51	
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call			Call	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type				Split	NA	custom	Prot	NA			NA	
Protected Phases				8	8	8 18	5	16			6	
Permitted Phases												
Detector Phase				8	8	8 18	5	16			6	

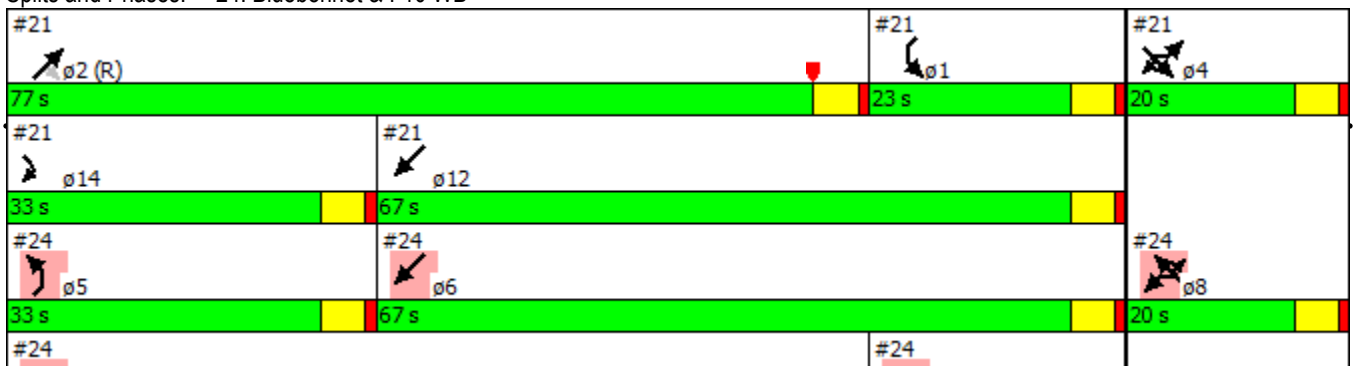
Lane Group	ø1	ø2	ø4	ø12	ø14	ø18
Lane Configurations						
Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	1	2	4	12	14	18
Permitted Phases						
Detector Phase						

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)				3.0	3.0		3.0	10.0			10.0	
Minimum Split (s)				18.0	18.0		8.0	20.0			20.0	
Total Split (s)				20.0	20.0		33.0	77.0			67.0	
Total Split (%)				16.7%	16.7%		27.5%	64.2%			55.8%	
Maximum Green (s)				15.0	15.0		28.0	72.0			62.0	
Yellow Time (s)				4.0	4.0		4.0	4.0			4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				5.0	5.0		5.0	5.0			5.0	
Lead/Lag							Lead	Lead			Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0		3.5	2.0			6.0	
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)				15.0	15.0	38.0	28.0	72.0			62.0	
Actuated g/C Ratio				0.12	0.12	0.32	0.23	0.60			0.52	
v/c Ratio				0.43	0.42	0.62	0.73	0.73			0.66	
Control Delay				55.5	55.4	33.6	40.3	7.0			16.4	
Queue Delay				0.0	0.0	0.0	0.1	0.0			0.0	
Total Delay				55.5	55.4	33.6	40.4	7.0			16.4	
LOS				E	E	C	D	A			B	
Approach Delay					41.2			16.2			16.4	
Approach LOS					D			B			B	
Queue Length 50th (ft)				68	68	180	115	152			367	
Queue Length 95th (ft)				126	125	283	191	86			273	
Internal Link Dist (ft)		814			928			330			786	
Turn Bay Length (ft)						525	300					
Base Capacity (vph)				210	210	545	801	2123			2595	
Starvation Cap Reductn				0	0	0	9	0			0	
Spillback Cap Reductn				0	0	0	0	15			18	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.43	0.42	0.62	0.74	0.73			0.67	

Intersection Summary

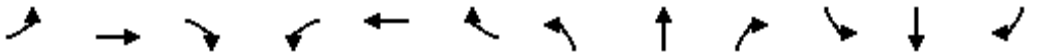
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 31 (26%), Referenced to phase 2:NET, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 19.2 Intersection LOS: B
Intersection Capacity Utilization 68.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 24: Bluebonnet & I-10 WB



Lane Group	ø1	ø2	ø4	ø12	ø14	ø18
Switch Phase						
Minimum Initial (s)	3.0	10.0	3.0	10.0	3.0	4.0
Minimum Split (s)	8.0	20.0	18.0	20.0	8.0	21.0
Total Split (s)	23.0	77.0	20.0	67.0	33.0	23.0
Total Split (%)	19%	64%	17%	56%	28%	19%
Maximum Green (s)	18.0	72.0	15.0	62.0	28.0	18.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lead		Lag	Lead	Lag
Lead-Lag Optimize?						Yes
Vehicle Extension (s)	2.0	2.0	2.0	6.0	3.5	3.0
Recall Mode	None	C-Max	None	Max	Max	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	69	27	75	186	10	55	79	1530	178	70	1374	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		200	300		175	175		175
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.889			0.897	0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3146	0	3433	1587	1504	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.106			0.074		
Satd. Flow (perm)	1770	3146	0	3433	1587	1504	197	3539	1583	138	3539	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		79										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		475			1072			866			1049	
Travel Time (s)		10.8			24.4			13.1			15.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	73	28	79	196	11	58	83	1611	187	74	1446	25
Shared Lane Traffic (%)						42%						
Lane Group Flow (vph)	73	107	0	196	35	34	83	1611	187	74	1446	25
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		60			60			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4		3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases							2			6		
Detector Phase	7	4		3	8	8 1	5	2	2 3	1	6	6 7

Lanes, Volumes, Timings
27: Bluebonnet & Blue Cross

2017 Build Noon

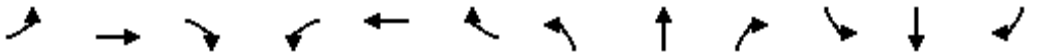
5/18/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	5.0		5.0	3.0		3.0	20.0		5.0	20.0	
Minimum Split (s)	8.9	10.9		10.9	8.9		9.6	26.6		11.6	26.6	
Total Split (s)	16.0	12.0		18.0	14.0		14.0	76.0		14.0	76.0	
Total Split (%)	13.3%	10.0%		15.0%	11.7%		11.7%	63.3%		11.7%	63.3%	
Maximum Green (s)	10.1	6.1		12.1	8.1		7.4	69.4		7.4	69.4	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	0.9	0.9		0.9	0.9		1.6	1.6		1.6	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.9	5.9		5.9	5.9		6.6	6.6		6.6	6.6	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		2.5	1.5		1.5	5.0		1.5	5.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	8.4	5.5		11.0	10.4	16.0	82.6	74.6	91.6	78.3	72.2	81.2
Actuated g/C Ratio	0.07	0.05		0.09	0.09	0.13	0.69	0.62	0.76	0.65	0.60	0.68
v/c Ratio	0.59	0.49		0.62	0.26	0.17	0.34	0.73	0.15	0.43	0.68	0.02
Control Delay	73.1	26.9		61.3	58.5	33.5	13.1	9.6	2.2	26.3	20.2	4.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.1	26.9		61.3	58.5	33.5	13.1	9.7	2.2	26.3	20.2	4.3
LOS	E	C		E	E	C	B	A	A	C	C	A
Approach Delay		45.6			57.4			9.1			20.3	
Approach LOS		D			E			A			C	
Queue Length 50th (ft)	56	11		75	27	20	8	117	20	21	508	4
Queue Length 95th (ft)	105	41		115	64	45	m13	368	m25	45	170	m3
Internal Link Dist (ft)		395			992			786			969	
Turn Bay Length (ft)	75			200		200	300		175	175		175
Base Capacity (vph)	149	236		347	137	211	255	2200	1169	191	2156	1107
Starvation Cap Reductn	0	0		0	0	0	0	30	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.45		0.56	0.26	0.16	0.33	0.74	0.16	0.39	0.67	0.02

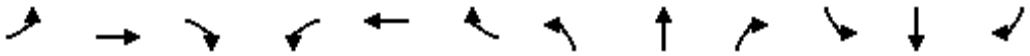
Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 41 (34%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 18.5 Intersection LOS: B
Intersection Capacity Utilization 74.3% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 27: Bluebonnet & Blue Cross



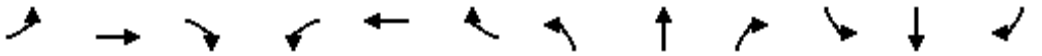
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	3	10	28	0	8	17	1615	20	5	1430	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		130	150		185
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.945			0.971				0.850			0.850
Flt Protected		0.976			0.962		0.950			0.950		
Satd. Flow (prot)	0	1718	0	0	1740	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.828			0.759		0.161			0.127		
Satd. Flow (perm)	0	1458	0	0	1373	0	300	3539	1583	237	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			27				27			27
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1129			1330			1049			1811	
Travel Time (s)		25.7			30.2			15.9			27.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	13	3	11	29	0	8	18	1700	21	5	1505	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	27	0	0	37	0	18	1700	21	5	1505	8
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



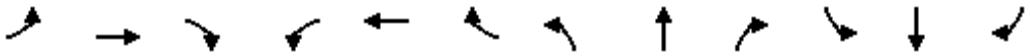
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	11.0	11.0		11.0	11.0		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.0	24.0		24.0	24.0		84.0	84.0	84.0	84.0	84.0	84.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		6.8			6.8		108.1	108.1	108.1	108.1	108.1	108.1
Actuated g/C Ratio		0.06			0.06		0.90	0.90	0.90	0.90	0.90	0.90
v/c Ratio		0.29			0.36		0.07	0.53	0.01	0.02	0.47	0.01
Control Delay		44.9			34.7		1.3	1.5	0.1	3.4	3.8	0.9
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		44.9			34.7		1.3	1.5	0.1	3.4	3.8	0.9
LOS		D			C		A	A	A	A	A	A
Approach Delay		44.9			34.7			1.5			3.7	
Approach LOS		D			C			A			A	
Queue Length 50th (ft)		12			8		2	140	1	0	117	0
Queue Length 95th (ft)		42			42		m0	12	m0	m2	320	m1
Internal Link Dist (ft)		1049			1250			969			1731	
Turn Bay Length (ft)							150		130	150		185
Base Capacity (vph)		300			296		270	3188	1428	213	3188	1428
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.09			0.13		0.07	0.53	0.01	0.02	0.47	0.01

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 65 (54%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 3.2		Intersection LOS: A	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 30: Bluebonnet & Gail



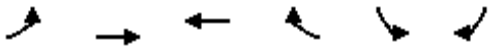
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	14	1	52	14	1	14	60	1556	17	8	1377	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.895			0.935				0.850			0.850
Flt Protected		0.990			0.976		0.950			0.950		
Satd. Flow (prot)	0	1650	0	0	1700	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.918			0.832		0.169			0.134		
Satd. Flow (perm)	0	1530	0	0	1449	0	315	3539	1583	250	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		55			15				29			29
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1794			2049			1811			2409	
Travel Time (s)		40.8			46.6			27.4			36.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	15	1	55	15	1	15	63	1638	18	8	1449	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	71	0	0	31	0	63	1638	18	8	1449	28
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	9.2	9.2		9.2	9.2		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	34.0	34.0		34.0	34.0		86.0	86.0	86.0	86.0	86.0	86.0
Total Split (%)	28.3%	28.3%		28.3%	28.3%		71.7%	71.7%	71.7%	71.7%	71.7%	71.7%
Maximum Green (s)	27.8	27.8		27.8	27.8		80.0	80.0	80.0	80.0	80.0	80.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.2	1.2		1.2	1.2		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.2			6.2		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		7.2			7.2		104.1	104.1	104.1	104.1	104.1	104.1
Actuated g/C Ratio		0.06			0.06		0.87	0.87	0.87	0.87	0.87	0.87
v/c Ratio		0.50			0.31		0.23	0.53	0.01	0.04	0.47	0.02
Control Delay		31.3			40.9		2.6	2.4	0.1	2.5	3.1	0.7
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		31.3			40.9		2.6	2.4	0.1	2.5	3.1	0.7
LOS		C			D		A	A	A	A	A	A
Approach Delay		31.3			40.9			2.3			3.0	
Approach LOS		C			D			A			A	
Queue Length 50th (ft)		12			12		1	11	0	1	113	0
Queue Length 95th (ft)		58			43		m12	280	m0	4	186	5
Internal Link Dist (ft)		1714			1969			1731			2329	
Turn Bay Length (ft)							150		150	150		150
Base Capacity (vph)		396			347		273	3069	1376	216	3069	1376
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.18			0.09		0.23	0.53	0.01	0.04	0.47	0.02

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 2 (2%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 3.6		Intersection LOS: A	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 33: Bluebonnet & Oliphant



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Lane Configurations												
Volume (vph)	145	339	209	265	157	103						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.95						
Frt				0.850	0.941							
Flt Protected	0.950				0.971							
Satd. Flow (prot)	1770	1863	1863	1583	3302	0						
Flt Permitted	0.400				0.971							
Satd. Flow (perm)	745	1863	1863	1583	3302	0						
Right Turn on Red				Yes		Yes						
Satd. Flow (RTOR)				288	112							
Link Speed (mph)		30	30		30							
Link Distance (ft)		819	802		318							
Travel Time (s)		18.6	18.2		7.2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	158	368	227	288	171	112						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	368	227	288	283	0						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Right	Left	Right						
Median Width(ft)		12	0		36							
Link Offset(ft)		0	0		0							
Crosswalk Width(ft)		16	16		16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15			9	15	9						
Number of Detectors	1	2	2	1	1							
Detector Template	Left	Thru	Thru	Right	Left							
Leading Detector (ft)	20	100	100	20	20							
Trailing Detector (ft)	0	0	0	0	0							
Detector 1 Position(ft)	0	0	0	0	0							
Detector 1 Size(ft)	20	6	6	20	20							
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex							
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0							
Detector 2 Position(ft)		94	94									
Detector 2 Size(ft)		6	6									
Detector 2 Type		Cl+Ex	Cl+Ex									
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0									
Turn Type	D.P+P	NA	NA	pm+ov	Prot							
Protected Phases	8	8 11	11	9 10	9 10		1	2	4	5	7	9
Permitted Phases	11			11								
Detector Phase	8	8 11	11	9 10	9 10							
Switch Phase												
Minimum Initial (s)	4.0		14.0				4.0	4.0	14.0	4.0	14.0	4.0
Minimum Split (s)	22.0		20.0				10.0	10.0	20.0	10.0	20.0	10.0

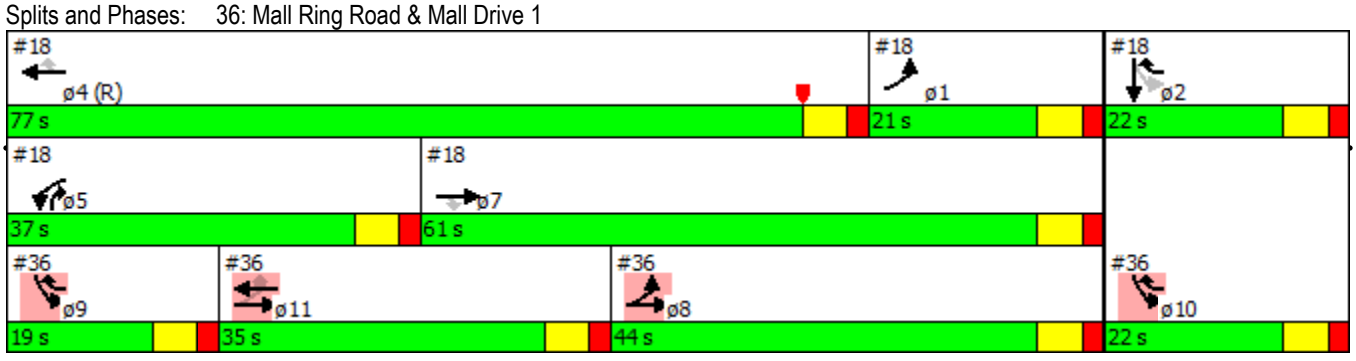
Lane Group	ø10
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	10
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	22.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Total Split (s)	44.0		35.0				21.0	22.0	77.0	37.0	61.0	19.0
Total Split (%)	36.7%		29.2%				18%	18%	64%	31%	51%	16%
Maximum Green (s)	38.0		29.0				15.0	16.0	71.0	31.0	55.0	13.0
Yellow Time (s)	4.0		4.0				4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0				2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0									
Total Lost Time (s)	6.0		6.0									
Lead/Lag			Lag				Lag		Lead	Lead	Lag	Lead
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0		4.3				2.5	2.0	4.3	2.5	4.3	3.0
Minimum Gap (s)	3.0		2.2				0.2	0.2	2.2	0.2	2.2	3.0
Time Before Reduce (s)	0.0		34.0				0.0	0.0	34.0	0.0	0.0	0.0
Time To Reduce (s)	0.0		15.0				0.0	0.0	15.0	0.0	0.0	0.0
Recall Mode	None		None				None	None	C-Min	None	None	None
Act Effct Green (s)	75.2	81.2	22.8	55.6	26.8							
Actuated g/C Ratio	0.63	0.68	0.19	0.46	0.22							
v/c Ratio	0.17	0.29	0.64	0.32	0.34							
Control Delay	3.7	3.6	52.5	2.5	65.7							
Queue Delay	0.0	0.0	0.0	0.0	0.0							
Total Delay	3.7	3.6	52.5	2.5	65.7							
LOS	A	A	D	A	E							
Approach Delay		3.6	24.6		65.7							
Approach LOS		A	C		E							
Queue Length 50th (ft)	8	36	164	0	96							
Queue Length 95th (ft)	29	69	227	39	131							
Internal Link Dist (ft)		739	722		238							
Turn Bay Length (ft)												
Base Capacity (vph)	914	1250	457	879	991							
Starvation Cap Reductn	0	0	0	0	0							
Spillback Cap Reductn	0	0	0	0	0							
Storage Cap Reductn	0	0	0	0	0							
Reduced v/c Ratio	0.17	0.29	0.50	0.33	0.29							

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 103 (86%), Referenced to phase 4:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 25.0 Intersection LOS: C
Intersection Capacity Utilization 42.4% ICU Level of Service A
Analysis Period (min) 15

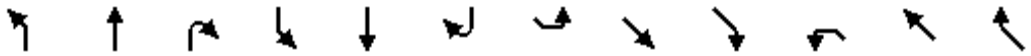
Splits and Phases: 36: Mall Ring Road & Mall Drive 1



Lane Group	ø10
Total Split (s)	22.0
Total Split (%)	18%
Maximum Green (s)	16.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Minimum Gap (s)	3.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

M.22 2017 BUILD PM – ESSEN LANE



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	224	498	100	422	1006	658	523	1211	153	169	823	245
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	800		0	300		0	150		0
Storage Lanes	1		0	1		1	2		0	1		0
Taper Length (ft)	150			25			200			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Frt		0.975				0.850		0.983			0.966	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3451	0	1770	3539	1583	3433	3479	0	1770	3419	0
Flt Permitted	0.222			0.222			0.950			0.950		
Satd. Flow (perm)	414	3451	0	414	3539	1583	3433	3479	0	1770	3419	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15				326		11			28	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1877			1475			2128			1788	
Travel Time (s)		28.4			22.3			32.2			27.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	243	541	109	459	1093	715	568	1316	166	184	895	266
Shared Lane Traffic (%)												
Lane Group Flow (vph)	243	650	0	459	1093	715	568	1482	0	184	1161	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	0	1	1		1	1	
Detector Template												
Leading Detector (ft)	45	162		45	162	0	45	45		45	45	
Trailing Detector (ft)	0	156		0	156	0	0	0		0	0	
Detector 1 Position(ft)	0	-6		0	-6	0	0	0		0	0	
Detector 1 Size(ft)	45	51		45	51	50	45	45		45	45	
Detector 1 Type	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2		2						
Detector Phase	1	6		5	2	2	3	8		7	4	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	5.0	10.0		3.0	10.0	
Minimum Split (s)	8.8	15.8		8.8	15.8	15.8	11.5	16.5		9.5	16.5	
Total Split (s)	18.0	36.0		30.0	48.0	48.0	25.0	55.0		19.0	49.0	
Total Split (%)	12.9%	25.7%		21.4%	34.3%	34.3%	17.9%	39.3%		13.6%	35.0%	
Maximum Green (s)	12.2	30.2		24.2	42.2	42.2	18.5	48.5		12.5	42.5	
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8	5.5	5.5		5.5	5.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8		5.8	5.8	5.8	6.5	6.5		6.5	6.5	
Lead/Lag	Lag	Lag		Lead	Lead	Lead	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	6.0		2.0	6.0	6.0	2.0	6.0		2.0	6.0	
Minimum Gap (s)	0.2	4.0		0.2	4.0	4.0	0.2	4.0		0.2	4.0	
Time Before Reduce (s)	0.0	20.0		0.0	20.0	20.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	
Act Effct Green (s)	30.2	30.2		42.2	42.2	42.2	18.5	48.5		12.5	42.5	
Actuated g/C Ratio	0.22	0.22		0.30	0.30	0.30	0.13	0.35		0.09	0.30	
v/c Ratio	1.17	0.86		1.28	1.03	1.02	1.25	1.22		1.16	1.10	
Control Delay	168.1	64.0		181.8	81.9	64.2	179.5	147.1		176.4	102.7	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	168.1	64.0		181.8	81.9	64.2	179.5	147.1		176.4	102.7	
LOS	F	E		F	F	E	F	F		F	F	
Approach Delay		92.4			96.5			156.1			112.8	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~241	296		~479	~556	~446	~332	~871		~198	~620	
Queue Length 95th (ft)	#439	#391		#699	#694	#711	#451	#1013		#355	#761	
Internal Link Dist (ft)		1797			1395			2048			1708	
Turn Bay Length (ft)	250			800			300			150		
Base Capacity (vph)	207	756		359	1066	704	453	1212		158	1057	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	1.17	0.86		1.28	1.03	1.02	1.25	1.22		1.16	1.10	

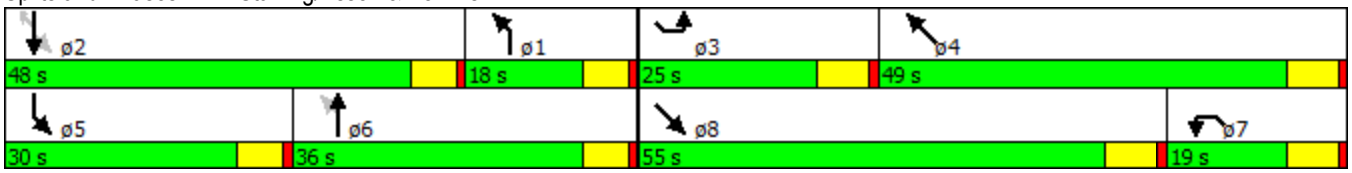
Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.28			
Intersection Signal Delay: 117.9		Intersection LOS: F	
Intersection Capacity Utilization 108.5%		ICU Level of Service G	
Analysis Period (min) 15			

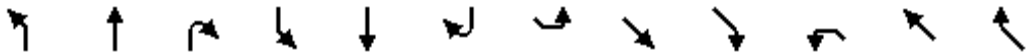
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

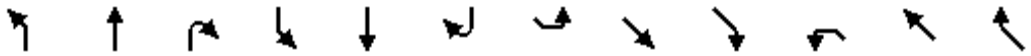
Splits and Phases: 2: Starring/Essen & Perkins





Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	0	2587	580	496	1594	0	17	0	723	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		0	0		800	0		0
Storage Lanes	1		0	2		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.86	0.86	0.97	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt		0.973							0.850			
Flt Protected				0.950			0.950	0.950				
Satd. Flow (prot)	0	6235	0	3433	3539	0	1681	1681	1583	0	0	0
Flt Permitted				0.950			0.950	0.950				
Satd. Flow (perm)	0	6235	0	3433	3539	0	1681	1681	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		79							245			
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		721			409			1012			1106	
Travel Time (s)		10.9			6.2			23.0			25.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	2812	630	539	1733	0	18	0	786	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	0	3442	0	539	1733	0	9	9	786	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2		1	1	0			
Detector Template							Left					
Leading Detector (ft)		290		45	290		20	45	0			
Trailing Detector (ft)		284		0	284		0	0	0			
Detector 1 Position(ft)		-6		0	-6		0	0	0			
Detector 1 Size(ft)		51		45	51		20	45	20			
Detector 1 Type		Call		Cl+Ex	Call		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Queue (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Delay (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA		Prot	NA		Perm	NA	Free			
Protected Phases		6		5	5 6			8				
Permitted Phases							8		Free			
Detector Phase		6		5	5 6		8	8				

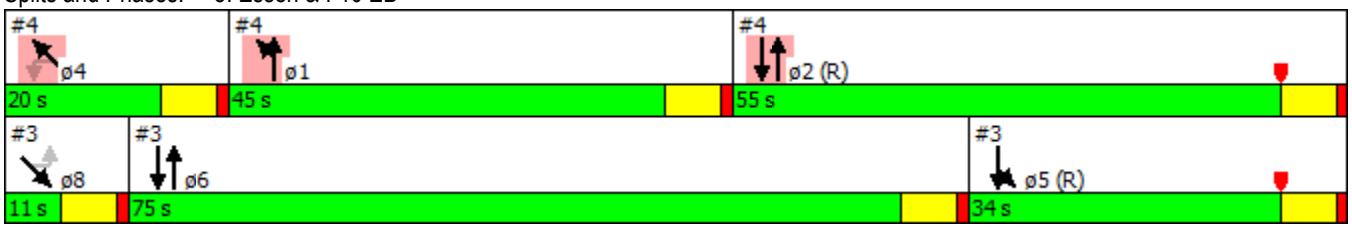
Lane Group	ø1	ø2	ø4
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	1	2	4
Permitted Phases			
Detector Phase			



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)		10.0		3.0			3.0	3.0				
Minimum Split (s)		16.0		9.0			9.0	9.0				
Total Split (s)		75.0		34.0			11.0	11.0				
Total Split (%)		62.5%		28.3%			9.2%	9.2%				
Maximum Green (s)		69.0		28.0			5.0	5.0				
Yellow Time (s)		5.0		5.0			5.0	5.0				
All-Red Time (s)		1.0		1.0			1.0	1.0				
Lost Time Adjust (s)		0.0		0.0			0.0	0.0				
Total Lost Time (s)		6.0		6.0			6.0	6.0				
Lead/Lag		Lag					Lead	Lead				
Lead-Lag Optimize?		Yes					Yes	Yes				
Vehicle Extension (s)		4.0		2.5			2.0	2.0				
Minimum Gap (s)		2.0		0.2			0.2	0.2				
Time Before Reduce (s)		10.0		0.0			0.0	0.0				
Time To Reduce (s)		20.0		0.0			0.0	0.0				
Recall Mode		Max		C-Max			Max	Max				
Act Effct Green (s)		69.0		28.0	103.0		5.0	5.0	120.0			
Actuated g/C Ratio		0.58		0.23	0.86		0.04	0.04	1.00			
v/c Ratio		0.95		0.67	0.57		0.13	0.13	0.50			
Control Delay		13.0		19.2	10.4		59.6	59.6	1.1			
Queue Delay		3.6		0.0	1.2		0.0	0.0	0.0			
Total Delay		16.6		19.2	11.7		59.6	59.6	1.1			
LOS		B		B	B		E	E	A			
Approach Delay		16.6			13.5			2.4				
Approach LOS		B			B			A				
Queue Length 50th (ft)		421		130	205		7	7	0			
Queue Length 95th (ft)		m539		m175	277		26	26	0			
Internal Link Dist (ft)		641			329			932			1026	
Turn Bay Length (ft)									800			
Base Capacity (vph)		3618		801	3037		70	70	1583			
Starvation Cap Reductn		139		0	996		0	0	0			
Spillback Cap Reductn		85		0	0		0	0	0			
Storage Cap Reductn		0		0	0		0	0	0			
Reduced v/c Ratio		0.99		0.67	0.85		0.13	0.13	0.50			

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 39 (33%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 13.8		Intersection LOS: B	
Intersection Capacity Utilization 79.7%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 3: Essen & I-10 EB



Lane Group	ø1	ø2	ø4
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	45.0	55.0	20.0
Total Split (%)	38%	46%	17%
Maximum Green (s)	39.0	49.0	14.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag		Lead
Lead-Lag Optimize?			
Vehicle Extension (s)	2.5	4.0	4.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	Max	C-Max	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	844	1760	0	0	1876	74	0	0	0	214	0	382
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	550		200	0		0	750		0
Storage Lanes	2		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.86	0.86	1.00	1.00	1.00	0.95	0.95	1.00
Frt					0.994							0.850
Flt Protected	0.950									0.950	0.950	
Satd. Flow (prot)	3433	3539	0	0	6369	0	0	0	0	1681	1681	1583
Flt Permitted	0.950									0.950	0.950	
Satd. Flow (perm)	3433	3539	0	0	6369	0	0	0	0	1681	1681	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					8							245
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		409			805			936			1390	
Travel Time (s)		6.2			12.2			21.3			31.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	917	1913	0	0	2039	80	0	0	0	233	0	415
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	917	1913	0	0	2119	0	0	0	0	116	117	415
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			20			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2					1	1	0
Detector Template										Left		
Leading Detector (ft)	45	290			290					20	45	0
Trailing Detector (ft)	0	284			284					0	0	0
Detector 1 Position(ft)	0	-6			-6					0	0	0
Detector 1 Size(ft)	45	51			51					20	45	20
Detector 1 Type	Cl+Ex	Call			Call					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA			NA					Perm	NA	Free
Protected Phases	1	1 2			2						4	
Permitted Phases										4		Free
Detector Phase	1	1 2			2					4	4	

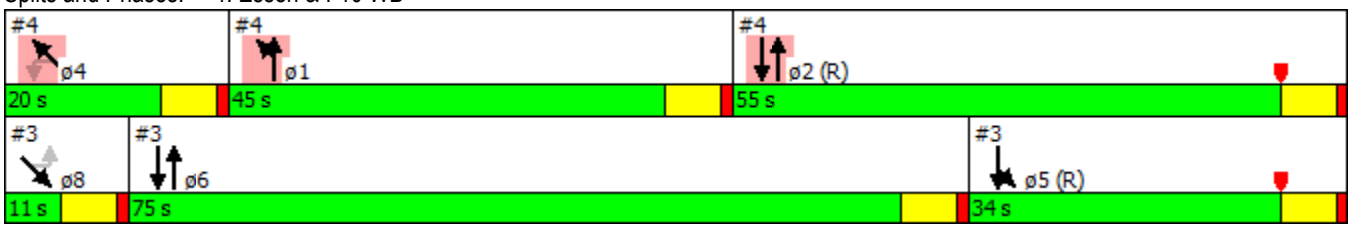
Lane Group	ø5	ø6	ø8
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	5	6	8
Permitted Phases			
Detector Phase			

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0				10.0					3.0	3.0	
Minimum Split (s)	9.0				16.0					9.0	9.0	
Total Split (s)	45.0				55.0					20.0	20.0	
Total Split (%)	37.5%				45.8%					16.7%	16.7%	
Maximum Green (s)	39.0				49.0					14.0	14.0	
Yellow Time (s)	5.0				5.0					5.0	5.0	
All-Red Time (s)	1.0				1.0					1.0	1.0	
Lost Time Adjust (s)	0.0				0.0					0.0	0.0	
Total Lost Time (s)	6.0				6.0					6.0	6.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5				4.0					4.0	4.0	
Minimum Gap (s)	0.2				2.0					0.2	0.2	
Time Before Reduce (s)	0.0				10.0					0.0	0.0	
Time To Reduce (s)	0.0				20.0					0.0	0.0	
Recall Mode	Max				C-Max					Max	Max	
Act Effct Green (s)	39.0	94.0			49.0					14.0	14.0	120.0
Actuated g/C Ratio	0.32	0.78			0.41					0.12	0.12	1.00
v/c Ratio	0.82	0.69			0.81					0.59	0.60	0.26
Control Delay	32.9	3.5			35.8					63.5	63.8	0.4
Queue Delay	7.8	7.4			0.0					0.0	0.0	0.0
Total Delay	40.7	10.9			35.8					63.5	63.8	0.4
LOS	D	B			D					E	E	A
Approach Delay		20.5			35.8						23.2	
Approach LOS		C			D						C	
Queue Length 50th (ft)	245	4			478					91	91	0
Queue Length 95th (ft)	m285	m4			499					158	158	0
Internal Link Dist (ft)		329			725			856			1310	
Turn Bay Length (ft)										750		
Base Capacity (vph)	1115	2772			2605					196	196	1583
Starvation Cap Reductn	167	825			0					0	0	0
Spillback Cap Reductn	0	34			0					0	0	15
Storage Cap Reductn	0	0			0					0	0	0
Reduced v/c Ratio	0.97	0.98			0.81					0.59	0.60	0.26

Intersection Summary

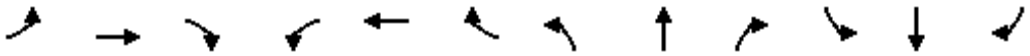
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 39 (33%), Referenced to phase 2:NBSB and 5:, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 26.6 Intersection LOS: C
Intersection Capacity Utilization 79.7% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Essen & I-10 WB

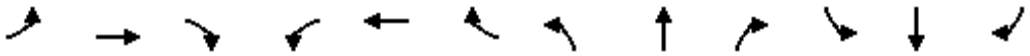


Lane Group	ø5	ø6	ø8
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	34.0	75.0	11.0
Total Split (%)	28%	63%	9%
Maximum Green (s)	28.0	69.0	5.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lead
Lead-Lag Optimize?		Yes	Yes
Vehicle Extension (s)	2.5	4.0	2.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	C-Max	Max	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	221	9	169	102	0	420	121	2406	78	214	1918	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	300		0	150		200	200		0
Storage Lanes	2		0	2		1	1		1	1		0
Taper Length (ft)	25			25			100			50		
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Frt		0.858				0.850			0.850		0.987	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	1598	0	3433	1863	1583	1770	5085	1583	1770	5019	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1598	0	3433	1863	1583	1770	5085	1583	1770	5019	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		183									20	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1095			896			1088			484	
Travel Time (s)		24.9			20.4			16.5			7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	240	10	184	111	0	457	132	2615	85	233	2085	190
Shared Lane Traffic (%)												
Lane Group Flow (vph)	240	194	0	111	0	457	132	2615	85	233	2275	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left		Right			Right			
Leading Detector (ft)	45	45		20	45	20	45	290	20	45	256	
Trailing Detector (ft)	0	0		0	0	0	0	284	0	0	250	
Detector 1 Position(ft)	0	0		0	0	0	0	-6	0	0	-6	
Detector 1 Size(ft)	45	45		20	45	20	45	51	20	45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			250	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot		Free	Prot	NA	pt+ov	Prot	NA	
Protected Phases	3	8		7	4		1	6	6 7	5	2	
Permitted Phases						Free						
Detector Phase	3	8		7	4		1	6	6 7	5	2	



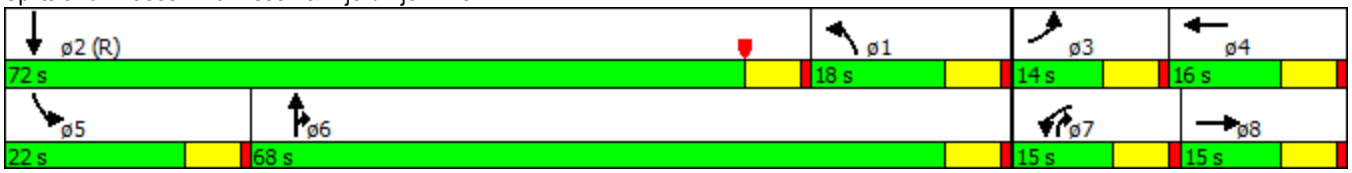
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	5.0		4.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	10.0	11.0		10.0	11.0		11.0	21.0		11.0	21.0	
Total Split (s)	14.0	15.0		15.0	16.0		18.0	68.0		22.0	72.0	
Total Split (%)	11.7%	12.5%		12.5%	13.3%		15.0%	56.7%		18.3%	60.0%	
Maximum Green (s)	8.0	9.0		9.0	10.0		12.0	62.0		16.0	66.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	2.0		3.0	2.0		2.0	2.5		2.0	2.0	
Minimum Gap (s)	3.0	0.2		3.0	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	21.0	6.6		8.4		120.0	17.8	65.0	79.4	16.0	63.1	
Actuated g/C Ratio	0.18	0.06		0.07		1.00	0.15	0.54	0.66	0.13	0.53	
v/c Ratio	0.40	0.74		0.46		0.29	0.50	0.95	0.08	0.99	0.86	
Control Delay	45.5	27.1		60.0		0.5	49.5	28.0	10.9	114.3	13.8	
Queue Delay	0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.3	
Total Delay	45.5	27.1		60.0		0.5	49.5	28.0	10.9	114.3	14.1	
LOS	D	C		E		A	D	C	B	F	B	
Approach Delay		37.3						28.5			23.4	
Approach LOS		D						C			C	
Queue Length 50th (ft)	86	8		43		0	100	741	28	168	139	
Queue Length 95th (ft)	122	83		73		0	m112	m#851	m30	#344	142	
Internal Link Dist (ft)		1015			816			1008			404	
Turn Bay Length (ft)	200			300			150		200	200		
Base Capacity (vph)	601	289		257		1583	263	2753	1055	236	2769	
Starvation Cap Reductn	0	0		0		0	0	0	0	0	108	
Spillback Cap Reductn	0	0		0		0	0	0	0	0	0	
Storage Cap Reductn	0	0		0		0	0	0	0	0	0	
Reduced v/c Ratio	0.40	0.67		0.43		0.29	0.50	0.95	0.08	0.99	0.85	

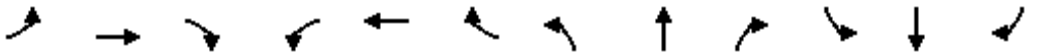
Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 89 (74%), Referenced to phase 2:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 25.6 Intersection LOS: C
Intersection Capacity Utilization 92.6% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

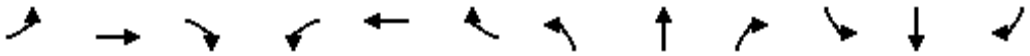
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Essen & Dijon/Dijon Ext





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	5	6	77	5	238	1	2916	131	80	2225	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	100		0	350		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			150		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.964				0.850		0.994			0.999	
Flt Protected		0.974			0.955		0.950			0.950		
Satd. Flow (prot)	0	1749	0	0	1779	1583	1770	5055	0	1770	5080	0
Flt Permitted		0.818			0.719		0.950			0.950		
Satd. Flow (perm)	0	1469	0	0	1339	1583	1770	5055	0	1770	5080	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		7						12			1	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		496			1336			484			721	
Travel Time (s)		11.3			30.4			7.3			10.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	5	7	84	5	259	1	3170	142	87	2418	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	26	0	0	89	259	1	3312	0	87	2431	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45	45	45	141		45	290	
Trailing Detector (ft)	0	0		0	0	0	0	135		0	284	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	20	45		20	45	45	45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								135			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases		8			4	4 5	1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4	4 5	1	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		4.0	15.0		3.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	21.0		9.0	21.0	
Total Split (s)	20.0	20.0		20.0	20.0		11.0	87.0		13.0	89.0	
Total Split (%)	16.7%	16.7%		16.7%	16.7%		9.2%	72.5%		10.8%	74.2%	
Maximum Green (s)	14.0	14.0		14.0	14.0		5.0	81.0		7.0	83.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		3.0	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)		14.0			14.0	27.0	5.4	81.0		7.0	91.8	
Actuated g/C Ratio		0.12			0.12	0.22	0.04	0.68		0.06	0.76	
v/c Ratio		0.15			0.57	0.73	0.01	0.97		0.84	0.63	
Control Delay		40.2			65.4	56.2	53.0	16.2		107.8	8.1	
Queue Delay		0.0			0.0	0.0	0.0	4.7		0.0	0.0	
Total Delay		40.2			65.4	56.2	53.0	21.0		107.8	8.1	
LOS		D			E	E	D	C		F	A	
Approach Delay		40.3			58.6			21.0			11.6	
Approach LOS		D			E			C			B	
Queue Length 50th (ft)		13			66	187	1	159		64	482	
Queue Length 95th (ft)		42			#124	#300	m0	#262		m#163	478	
Internal Link Dist (ft)		416			1256			404			641	
Turn Bay Length (ft)						100	100			350		
Base Capacity (vph)		177			156	356	80	3416		103	3886	
Starvation Cap Reductn		0			0	0	0	0		0	63	
Spillback Cap Reductn		0			0	0	0	105		0	77	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.15			0.57	0.73	0.01	1.00		0.84	0.64	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 114 (95%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay: 19.3		Intersection LOS: B	
Intersection Capacity Utilization 92.3%		ICU Level of Service F	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Essen & Essen Park

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	578	315	1963	279	136	1372
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		0	150	
Storage Lanes	2	1		0	1	
Taper Length (ft)	25				100	
Lane Util. Factor	0.97	1.00	0.91	0.91	1.00	0.95
Frt		0.850	0.981			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	4989	0	1770	3539
Flt Permitted	0.950				0.056	
Satd. Flow (perm)	3433	1583	4989	0	104	3539
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			33			
Link Speed (mph)	30		45			45
Link Distance (ft)	1306		805			993
Travel Time (s)	29.7		12.2			15.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	628	342	2134	303	148	1491
Shared Lane Traffic (%)						
Lane Group Flow (vph)	628	342	2437	0	148	1491
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	52		20			25
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2		1	2
Detector Template						
Leading Detector (ft)	45	45	290		45	290
Trailing Detector (ft)	0	0	284		0	284
Detector 1 Position(ft)	0	0	-6		0	-6
Detector 1 Size(ft)	45	45	51		45	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			284			284
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm	pt+ov	NA		pm+pt	NA
Protected Phases		5 8	6		5	2
Permitted Phases	8				2	
Detector Phase	8	5 8	6		5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	4.0		15.0		5.0	15.0
Minimum Split (s)	20.0		21.0		11.0	21.0
Total Split (s)	31.0		70.0		19.0	89.0
Total Split (%)	25.8%		58.3%		15.8%	74.2%
Maximum Green (s)	27.0		64.0		13.0	83.0
Yellow Time (s)	3.5		5.0		5.0	5.0
All-Red Time (s)	0.5		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.0		6.0		6.0	6.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		5.0		2.0	5.0
Minimum Gap (s)	3.0		3.0		0.2	3.0
Time Before Reduce (s)	0.0		15.0		0.0	15.0
Time To Reduce (s)	0.0		15.0		0.0	15.0
Recall Mode	None		C-Min		None	Min
Walk Time (s)	5.0					
Flash Dont Walk (s)	11.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	25.7	42.7	65.3		84.3	84.3
Actuated g/C Ratio	0.21	0.36	0.54		0.70	0.70
v/c Ratio	0.85	0.61	0.89		0.58	0.60
Control Delay	57.4	36.9	14.8		37.7	5.9
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	57.4	36.9	14.8		37.7	5.9
LOS	E	D	B		D	A
Approach Delay	50.2		14.8			8.8
Approach LOS	D		B			A
Queue Length 50th (ft)	239	212	116		64	208
Queue Length 95th (ft)	308	313	465		m118	m191
Internal Link Dist (ft)	1226		725			913
Turn Bay Length (ft)		100			150	
Base Capacity (vph)	772	580	2728		253	2484
Starvation Cap Reductn	0	0	5		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.81	0.59	0.89		0.58	0.60

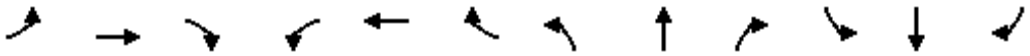
Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 19 (16%), Referenced to phase 6:NBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 19.6	Intersection LOS: B
Intersection Capacity Utilization 81.5%	ICU Level of Service D

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 17: Essen & United Plaza South

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1019	68	171	156	33	325	33	1260	52	229	1658	302
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	425		50	280		280	150		0	550		300
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	100			200			25			100		
Lane Util. Factor	0.91	0.91	1.00	0.95	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Frt			0.850			0.850		0.994				0.850
Flt Protected	0.950	0.961		0.950	0.968		0.950			0.950		
Satd. Flow (prot)	3221	1629	1583	1681	1713	1583	1770	5055	0	1770	5085	1583
Flt Permitted	0.950	0.961		0.950	0.968		0.950			0.950		
Satd. Flow (perm)	3221	1629	1583	1681	1713	1583	1770	5055	0	1770	5085	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								5				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1908			1396			1335			1088	
Travel Time (s)		43.4			31.7			20.2			16.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1108	74	186	170	36	353	36	1370	57	249	1802	328
Shared Lane Traffic (%)	29%			40%								
Lane Group Flow (vph)	787	395	186	102	104	353	36	1427	0	249	1802	328
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		45			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	0	1	1	1	1	2		1	2	2
Detector Template												
Leading Detector (ft)	45	45	0	45	45	45	45	290		45	256	45
Trailing Detector (ft)	0	0	0	0	0	0	0	284		0	284	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	-6		0	-6	-6
Detector 1 Size(ft)	45	45	20	45	45	45	45	51		45	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Call
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	0
Detector 2 Size(ft)								6			-28	45
Detector 2 Type								Extend			Extend	Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	0.0
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4	4 5	1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4	4 5	1	6		5	2	2 8

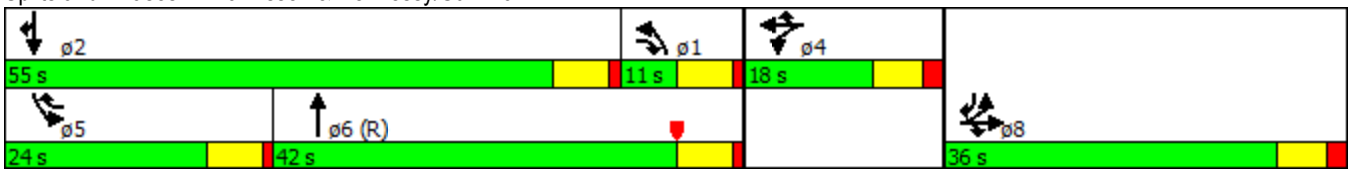


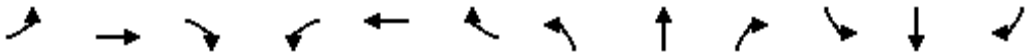
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.5	14.5		14.5	14.5		9.0	21.0		9.0	21.0	
Total Split (s)	36.0	36.0		18.0	18.0		11.0	42.0		24.0	55.0	
Total Split (%)	30.0%	30.0%		15.0%	15.0%		9.2%	35.0%		20.0%	45.8%	
Maximum Green (s)	29.5	29.5		11.5	11.5		5.0	36.0		18.0	49.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	29.5	29.5	35.4	11.5	11.5	28.9	6.4	36.1		17.9	47.6	83.6
Actuated g/C Ratio	0.25	0.25	0.30	0.10	0.10	0.24	0.05	0.30		0.15	0.40	0.70
v/c Ratio	0.99	0.99	0.40	0.63	0.63	0.93	0.38	0.94		0.95	0.89	0.30
Control Delay	76.2	87.6	29.2	70.5	70.2	59.3	47.3	40.2		102.0	31.9	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	76.2	87.6	29.2	70.5	70.2	59.3	47.3	40.2		102.0	31.9	10.6
LOS	E	F	C	E	E	E	D	D		F	C	B
Approach Delay		73.1			63.4			40.3			36.3	
Approach LOS		E			E			D			D	
Queue Length 50th (ft)	335	336	81	81	83	138	29	434		189	222	88
Queue Length 95th (ft)	#478	#561	130	#158	#158	#316	m55	#492		m#288	375	m147
Internal Link Dist (ft)		1828			1316			1255			1008	
Turn Bay Length (ft)	425		50	280		280	150			550		300
Base Capacity (vph)	791	400	467	161	164	382	94	1526		265	2076	1121
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.99	0.99	0.40	0.63	0.63	0.92	0.38	0.94		0.94	0.87	0.29

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 83 (69%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 48.7		Intersection LOS: D	
Intersection Capacity Utilization 81.5%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

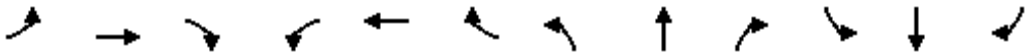
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Essen & Hennessy/Summa





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	166	148	224	50	59	53	76	1126	66	95	1811	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	150		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.910			0.929			0.992			0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1695	0	1770	1730	0	1770	5045	0	1770	5055	0
Flt Permitted	0.643			0.150			0.085			0.179		
Satd. Flow (perm)	1198	1695	0	279	1730	0	158	5045	0	333	5055	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		67			40			10			7	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1062			1416			1475			1335	
Travel Time (s)		24.1			32.2			22.3			20.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	180	161	243	54	64	58	83	1224	72	103	1968	87
Shared Lane Traffic (%)												
Lane Group Flow (vph)	180	404	0	54	122	0	83	1296	0	103	2055	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template												
Leading Detector (ft)	45	45		45	45		45	290		45	290	
Trailing Detector (ft)	0	0		0	0		0	284		0	284	
Detector 1 Position(ft)	0	0		0	0		0	-6		0	-6	
Detector 1 Size(ft)	45	45		45	45		45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		1	6		5	2	

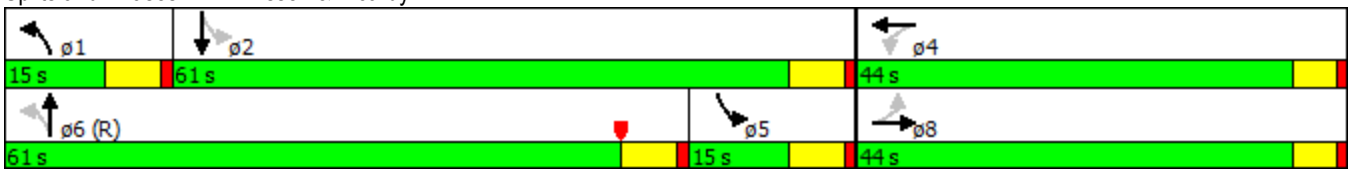


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		2.0	15.0		3.0	15.0	
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	21.0		9.0	21.0	
Total Split (s)	44.0	44.0		44.0	44.0		15.0	61.0		15.0	61.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		12.5%	50.8%		12.5%	50.8%	
Maximum Green (s)	39.0	39.0		39.0	39.0		9.0	55.0		9.0	55.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	29.6	29.6		29.6	29.6		54.8	54.8		67.9	67.9	
Actuated g/C Ratio	0.25	0.25		0.25	0.25		0.46	0.46		0.57	0.57	
v/c Ratio	0.61	0.86		0.79	0.27		0.47	0.56		0.25	0.72	
Control Delay	47.8	53.5		102.8	23.7		31.5	26.8		11.1	12.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	47.8	53.5		102.8	23.7		31.5	26.8		11.1	12.2	
LOS	D	D		F	C		C	C		B	B	
Approach Delay		51.7			48.0			27.1			12.2	
Approach LOS		D			D			C			B	
Queue Length 50th (ft)	124	254		39	50		37	266		25	192	
Queue Length 95th (ft)	182	344		#101	92		81	369		m17	110	
Internal Link Dist (ft)		982			1336			1395			1255	
Turn Bay Length (ft)	225			150			150			150		
Base Capacity (vph)	389	596		90	589		193	2510		411	2864	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.46	0.68		0.60	0.21		0.43	0.52		0.25	0.72	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 79 (66%), Referenced to phase 6:NBTL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 23.8		Intersection LOS: C	
Intersection Capacity Utilization 84.2%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Essen & Picardy



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	460	157	2398	11	49	1145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	125		125	125	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.88	0.91	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2787	5085	1583	1770	3539
Flt Permitted	0.950				0.059	
Satd. Flow (perm)	1770	2787	5085	1583	110	3539
Right Turn on Red		Yes		No		
Satd. Flow (RTOR)		149				
Link Speed (mph)	30		45			45
Link Distance (ft)	1179		993			571
Travel Time (s)	26.8		15.0			8.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	500	171	2607	12	53	1245
Shared Lane Traffic (%)						
Lane Group Flow (vph)	500	171	2607	12	53	1245
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	42		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template						
Leading Detector (ft)	45	45	290	45	45	290
Trailing Detector (ft)	0	0	284	0	-6	284
Detector 1 Position(ft)	0	0	-6	0	-6	-6
Detector 1 Size(ft)	45	45	51	45	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			284			284
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	pt+ov	pm+pt	NA
Protected Phases	4		6	6 4	5	2
Permitted Phases		4			2	
Detector Phase	4	4	6	6 4	5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	5.0	5.0	15.0		3.0	15.0
Minimum Split (s)	11.0	11.0	21.0		9.0	21.0
Total Split (s)	43.0	43.0	66.0		11.0	77.0
Total Split (%)	35.8%	35.8%	55.0%		9.2%	64.2%
Maximum Green (s)	37.0	37.0	60.0		5.0	71.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0
Recall Mode	None	None	C-Min		None	C-Min
Act Effct Green (s)	35.7	35.7	63.5	106.3	72.3	72.3
Actuated g/C Ratio	0.30	0.30	0.53	0.89	0.60	0.60
v/c Ratio	0.95	0.18	0.97	0.01	0.39	0.58
Control Delay	70.6	7.2	23.1	0.3	23.5	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	70.6	7.2	23.1	0.3	23.5	9.4
LOS	E	A	C	A	C	A
Approach Delay	54.4		23.0			10.0
Approach LOS	D		C			A
Queue Length 50th (ft)	373	6	~779	0	10	190
Queue Length 95th (ft)	#577	35	#865	m0	m30	61
Internal Link Dist (ft)	1099		913			491
Turn Bay Length (ft)		125		125	125	
Base Capacity (vph)	545	962	2689	1403	136	2133
Starvation Cap Reductn	0	0	0	0	0	154
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.18	0.97	0.01	0.39	0.63

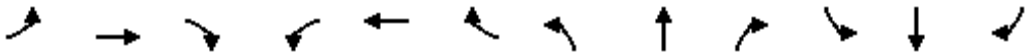
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 31 (26%), Referenced to phase 2:SBTL and 6:NBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay: 23.9		Intersection LOS: C	
Intersection Capacity Utilization 81.8%		ICU Level of Service D	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

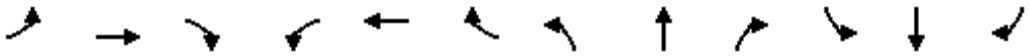
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 28: Essen & United Plaza North



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	0	20	108	1	367	15	2525	14	34	1067	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		100	175		0	150		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	0.95
Frt		0.850				0.850		0.999			0.995	
Flt Protected	0.950				0.953		0.950			0.950		
Satd. Flow (prot)	1770	1583	0	0	1775	1583	1770	5080	0	1770	3522	0
Flt Permitted	0.647				0.712		0.234			0.060		
Satd. Flow (perm)	1205	1583	0	0	1326	1583	436	5080	0	112	3522	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		191						1			6	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		757			843			571			472	
Travel Time (s)		17.2			19.2			8.7			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	0	22	117	1	399	16	2745	15	37	1160	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	65	22	0	0	118	399	16	2760	0	37	1202	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	3	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290		45	390	
Trailing Detector (ft)	0	0		0	0	0	0	284		0	284	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	45	45		20	45	45	45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Detector 3 Position(ft)											384	
Detector 3 Size(ft)											6	
Detector 3 Type											Cl+Ex	
Detector 3 Channel												



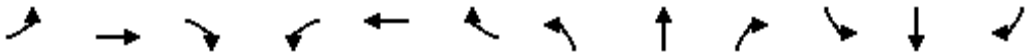
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 3 Extend (s)											0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		8		7	4	4 5	1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4	4 5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	31.0		11.0	31.0	
Total Split (s)	15.0	15.0		11.0	26.0		11.0	72.0		22.0	83.0	
Total Split (%)	12.5%	12.5%		9.2%	21.7%		9.2%	60.0%		18.3%	69.2%	
Maximum Green (s)	9.0	9.0		5.0	20.0		5.0	66.0		16.0	77.0	
Yellow Time (s)	4.5	4.5		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		2.0	2.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag		Lead			Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	3.0		0.2	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	20.1	20.1			20.1	38.6	69.4	69.4		83.6	83.6	
Actuated g/C Ratio	0.17	0.17			0.17	0.32	0.58	0.58		0.70	0.70	
v/c Ratio	0.32	0.05			0.53	0.78	0.05	0.94		0.15	0.49	
Control Delay	49.2	0.2			55.4	48.4	2.0	9.5		12.5	6.4	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	49.2	0.2			55.4	48.4	2.0	9.5		12.5	6.4	
LOS	D	A			E	D	A	A		B	A	
Approach Delay		36.8			50.0			9.5			6.6	
Approach LOS		D			D			A			A	
Queue Length 50th (ft)	45	0			85	273	1	73		4	74	
Queue Length 95th (ft)	90	0			148	388	m1	m#120		29	190	
Internal Link Dist (ft)		677			763			491			392	
Turn Bay Length (ft)	75					100	175			150		
Base Capacity (vph)	201	425			222	556	330	2937		299	2515	
Starvation Cap Reductn	0	0			0	0	0	0		0	176	
Spillback Cap Reductn	0	0			0	0	0	0		0	14	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.32	0.05			0.53	0.72	0.05	0.94		0.12	0.51	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 28 (23%), Referenced to phase 2:SBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	

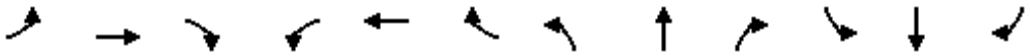
Intersection Signal Delay: 13.7	Intersection LOS: B
Intersection Capacity Utilization 91.0%	ICU Level of Service E
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 29: Essen & Sholar/Archives



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	209	0	43	0	0	0	0	1714	1237	0	1097	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.947							0.850			
Flt Protected	0.950	0.969										
Satd. Flow (prot)	1681	1624	0	0	0	0	0	3539	1583	0	3539	0
Flt Permitted	0.950	0.969										
Satd. Flow (perm)	1681	1624	0	0	0	0	0	3539	1583	0	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36							452			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		995			508			472			1384	
Travel Time (s)		22.6			11.5			7.2			21.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	227	0	47	0	0	0	0	1863	1345	0	1192	0
Shared Lane Traffic (%)	38%											
Lane Group Flow (vph)	141	133	0	0	0	0	0	1863	1345	0	1192	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1						2	1		2	
Detector Template												
Leading Detector (ft)	45	45						290	45		290	
Trailing Detector (ft)	0	0						284	-6		284	
Detector 1 Position(ft)	0	0						-6	-6		-6	
Detector 1 Size(ft)	45	45						51	51		51	
Detector 1 Type	Cl+Ex	Cl+Ex						Call	Cl+Ex		Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0		0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA						NA	Free		NA	
Protected Phases		8						6			2	
Permitted Phases	8								Free			
Detector Phase	8	8						6			2	

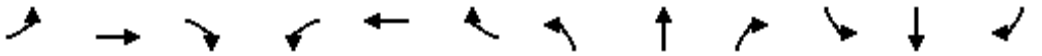


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	10.0	10.0						25.0			25.0	
Minimum Split (s)	17.0	17.0						32.0			32.0	
Total Split (s)	27.0	27.0						93.0			93.0	
Total Split (%)	22.5%	22.5%						77.5%			77.5%	
Maximum Green (s)	20.0	20.0						86.0			86.0	
Yellow Time (s)	5.0	5.0						5.0			5.0	
All-Red Time (s)	2.0	2.0						2.0			2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	7.0	7.0						7.0			7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5						5.0			5.0	
Minimum Gap (s)	0.2	0.2						3.0			3.0	
Time Before Reduce (s)	0.0	0.0						15.0			15.0	
Time To Reduce (s)	0.0	0.0						15.0			15.0	
Recall Mode	None	None						C-Max			Max	
Act Effct Green (s)	14.9	14.9						91.1	120.0		91.1	
Actuated g/C Ratio	0.12	0.12						0.76	1.00		0.76	
v/c Ratio	0.67	0.57						0.69	0.85		0.44	
Control Delay	65.8	44.9						2.7	14.3		6.2	
Queue Delay	0.0	0.0						0.3	0.0		0.0	
Total Delay	65.8	44.9						3.0	14.3		6.2	
LOS	E	D						A	B		A	
Approach Delay		55.7						7.8			6.2	
Approach LOS		E						A			A	
Queue Length 50th (ft)	111	74						101	859		150	
Queue Length 95th (ft)	176	137						m98	m1078		224	
Internal Link Dist (ft)		915			428			392			1304	
Turn Bay Length (ft)	400											
Base Capacity (vph)	280	300						2686	1583		2686	
Starvation Cap Reductn	0	0						285	0		0	
Spillback Cap Reductn	0	0						0	0		0	
Storage Cap Reductn	0	0						0	0		0	
Reduced v/c Ratio	0.50	0.44						0.78	0.85		0.44	

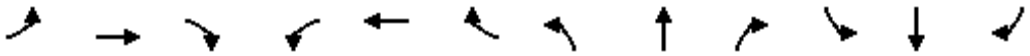
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 46 (38%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 10.2		Intersection LOS: B	
Intersection Capacity Utilization 67.4%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 32: Essen & I-12 EB

M.23 2017 BUILD PM – BLUEBONNET BOULEVARD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	155	995	98	424	669	131	168	1002	166	330	909	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		250	325		375	350		0	250		150
Storage Lanes	2		1	2		1	2		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Frt			0.850			0.850		0.979				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3465	0	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3465	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			170			123		12				119
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		2445			3864			2201			709	
Travel Time (s)		37.0			58.5			33.3			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	163	1047	103	446	704	138	177	1055	175	347	957	191
Shared Lane Traffic (%)												
Lane Group Flow (vph)	163	1047	103	446	704	138	177	1230	0	347	957	191
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45	45	290		45	290	45
Trailing Detector (ft)	-6	284	-6	-6	284	-6	-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6	-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51	51	51		51	51	51
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		284			284			284			284	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Extend			Extend			Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8		7	4	5
Permitted Phases			2			6						4
Detector Phase	5	2	3	1	6	7	3	8		7	4	5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	10.0	4.0	4.0	10.0	4.0	4.0	10.0		4.0	10.0	4.0
Minimum Split (s)	11.0	34.5	11.0	11.0	37.5	11.0	11.0	41.0		11.0	41.0	11.0
Total Split (s)	21.0	51.0	22.0	29.0	59.0	26.0	22.0	54.0		26.0	58.0	21.0
Total Split (%)	13.1%	31.9%	13.8%	18.1%	36.9%	16.3%	13.8%	33.8%		16.3%	36.3%	13.1%
Maximum Green (s)	14.0	44.5	15.0	22.0	52.5	19.0	15.0	47.0		19.0	51.0	14.0
Yellow Time (s)	5.0	4.5	5.0	5.0	4.5	5.0	5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.0	6.5	7.0	7.0	6.5	7.0	7.0	7.0		7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag		Lead	Lead	Lead
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.3	3.0	3.0	4.3	3.0	3.0	3.9		3.0	3.9	3.0
Minimum Gap (s)	0.2	2.2	0.2	0.2	2.2	0.2	0.2	2.2		0.2	2.2	0.2
Time Before Reduce (s)	0.0	15.0	0.0	0.0	15.0	0.0	0.0	25.0		0.0	25.0	0.0
Time To Reduce (s)	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0		0.0	10.0	0.0
Recall Mode	None	Min	None	None	Min	None	None	Min		None	C-Min	None
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		23.0			26.0			29.0			29.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	12.4	44.5	64.2	22.0	54.1	79.2	20.2	47.4		18.6	45.8	58.2
Actuated g/C Ratio	0.08	0.28	0.40	0.14	0.34	0.50	0.13	0.30		0.12	0.29	0.36
v/c Ratio	0.62	1.06	0.14	0.94	0.59	0.16	0.41	1.19		0.87	0.95	0.29
Control Delay	81.6	101.2	0.4	97.3	46.4	5.0	69.0	141.8		91.2	62.2	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	81.6	101.2	0.4	97.3	46.4	5.0	69.0	141.8		91.2	62.2	6.6
LOS	F	F	A	F	D	A	E	F		F	E	A
Approach Delay		90.9			59.6			132.7			61.8	
Approach LOS		F			E			F			E	
Queue Length 50th (ft)	86	~633	0	242	322	8	90	~815		170	518	47
Queue Length 95th (ft)	127	#772	0	#351	396	47	136	#958		#274	478	88
Internal Link Dist (ft)		2365			3784			2121			629	
Turn Bay Length (ft)	440		250	325		375	350			250		150
Base Capacity (vph)	300	984	737	472	1197	849	433	1035		407	1128	665
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.54	1.06	0.14	0.94	0.59	0.16	0.41	1.19		0.85	0.85	0.29

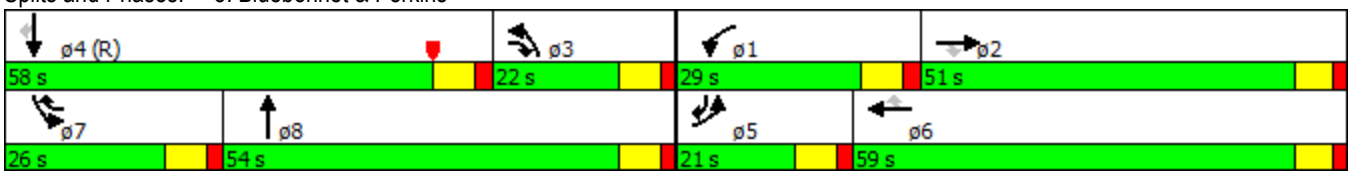
Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 160			
Offset: 145 (91%), Referenced to phase 4:SBT, Start of Yellow			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.19			
Intersection Signal Delay: 86.4		Intersection LOS: F	
Intersection Capacity Utilization 104.9%		ICU Level of Service G	

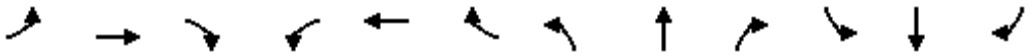
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

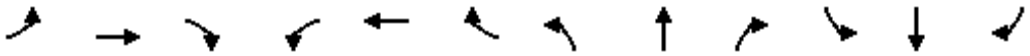
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Bluebonnet & Perkins





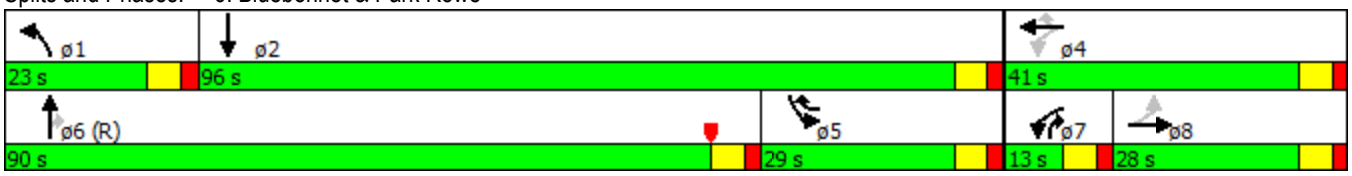
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	93	13	52	71	14	181	90	1047	152	304	1299	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		125	160		160	175		0
Storage Lanes	1		0	0		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.880				0.850			0.850		0.992	
Flt Protected	0.950				0.960		0.950			0.950		
Satd. Flow (prot)	1770	1639	0	0	1788	1583	1770	3539	1583	3433	3511	0
Flt Permitted	0.699				0.525		0.950			0.950		
Satd. Flow (perm)	1302	1639	0	0	978	1583	1770	3539	1583	3433	3511	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		55				66			107		6	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		511			1048			709			2556	
Travel Time (s)		11.6			23.8			10.7			38.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	98	14	55	75	15	191	95	1102	160	320	1367	78
Shared Lane Traffic (%)												
Lane Group Flow (vph)	98	69	0	0	90	191	95	1102	160	320	1445	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290	45	45	290	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284	-6	-6	284	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6	-6	-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	
Protected Phases		8		7	4	5	1	6	7	5	2	
Permitted Phases	8			4		4			6			
Detector Phase	8	8		7	4	5	1	6	7	5	2	

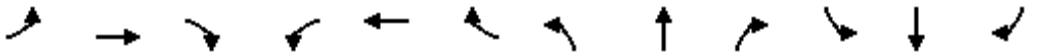


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		3.0	5.0	3.0	3.0	15.0	3.0	3.0	15.0	
Minimum Split (s)	11.0	11.0		9.0	11.0	9.0	9.0	21.0	9.0	9.0	21.0	
Total Split (s)	28.0	28.0		13.0	41.0	29.0	23.0	90.0	13.0	29.0	96.0	
Total Split (%)	17.5%	17.5%		8.1%	25.6%	18.1%	14.4%	56.3%	8.1%	18.1%	60.0%	
Maximum Green (s)	22.0	22.0		7.0	35.0	23.0	17.0	84.0	7.0	23.0	90.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lag	Lag		Lead		Lag	Lead	Lead	Lead	Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		1.5	2.0	1.5	1.5	4.0	1.5	1.5	4.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2	0.2	0.2	2.2	0.2	0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	25.0	0.0	0.0	25.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	15.0	0.0	0.0	15.0	
Recall Mode	None	None		None	None	None	None	C-Min	None	None	Min	
Act Effct Green (s)	16.6	16.6			28.2	57.9	12.6	90.1	95.8	23.6	101.2	
Actuated g/C Ratio	0.10	0.10			0.18	0.36	0.08	0.56	0.60	0.15	0.63	
v/c Ratio	0.73	0.32			0.45	0.31	0.69	0.55	0.16	0.63	0.65	
Control Delay	97.8	24.2			62.6	23.0	64.6	50.9	15.4	69.5	21.7	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.8	0.0	0.0	0.0	
Total Delay	97.8	24.2			62.6	23.0	64.6	51.7	15.4	69.5	21.7	
LOS	F	C			E	C	E	D	B	E	C	
Approach Delay		67.3			35.7			48.3			30.4	
Approach LOS		E			D			D			C	
Queue Length 50th (ft)	101	14			83	93	105	599	84	165	468	
Queue Length 95th (ft)	163	62			130	132	m106	m360	m59	208	698	
Internal Link Dist (ft)		431			968			629			2476	
Turn Bay Length (ft)	100					125	160		160	175		
Base Capacity (vph)	182	276			246	592	190	2039	1005	533	2238	
Starvation Cap Reductn	0	0			0	0	0	577	0	0	0	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	10	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.54	0.25			0.37	0.32	0.50	0.75	0.16	0.60	0.65	

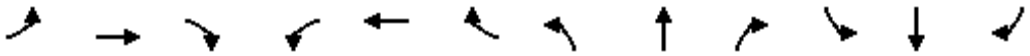
Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 160			
Offset: 18 (11%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 39.3		Intersection LOS: D	
Intersection Capacity Utilization 70.1%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Bluebonnet & Park Rowe





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	558	5	90	27	2	51	17	1294	11	19	1560	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	475		475	50		0	425		0	130		130
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.855			0.999				0.850
Flt Protected	0.950	0.953		0.950			0.950			0.950		
Satd. Flow (prot)	1681	1686	1583	1770	1593	0	1770	3536	0	1770	3539	1583
Flt Permitted	0.950	0.953		0.950			0.950			0.950		
Satd. Flow (perm)	1681	1686	1583	1770	1593	0	1770	3536	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			95		54			1				100
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1004			740			2556			469	
Travel Time (s)		22.8			16.8			38.7			7.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	587	5	95	28	2	54	18	1362	12	20	1642	135
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	293	299	95	28	56	0	18	1374	0	20	1642	135
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	45	45	45		45	290		45	290	45
Trailing Detector (ft)	-6	-6	-6	-6	-6		-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6		-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51		51	51		51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA		Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4		1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4		1	6		5	2	2 8



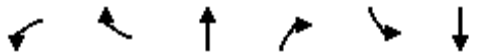
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.5	25.5		8.5	25.5	
Total Split (s)	39.0	39.0		13.0	13.0		11.0	86.0		12.0	87.0	
Total Split (%)	26.0%	26.0%		8.7%	8.7%		7.3%	57.3%		8.0%	58.0%	
Maximum Green (s)	34.0	34.0		8.0	8.0		5.5	80.5		6.5	81.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	6.0		3.0	6.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	32.1	32.1	43.2	7.9	7.9		5.7	88.1		8.0	85.9	118.5
Actuated g/C Ratio	0.21	0.21	0.29	0.05	0.05		0.04	0.59		0.05	0.57	0.79
v/c Ratio	0.82	0.83	0.18	0.30	0.41		0.27	0.66		0.21	0.81	0.11
Control Delay	74.3	75.8	7.6	77.0	26.8		80.6	25.2		56.1	18.1	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.1		0.0	0.1		0.0	0.5	0.0
Total Delay	74.3	75.8	7.6	77.0	26.8		80.6	25.3		56.1	18.6	0.6
LOS	E	E	A	E	C		F	C		E	B	A
Approach Delay		65.7			43.6			26.0			17.6	
Approach LOS		E			D			C			B	
Queue Length 50th (ft)	285	292	0	27	2		18	571		20	250	3
Queue Length 95th (ft)	#422	#433	44	63	49		46	608		m47	303	7
Internal Link Dist (ft)		924			660			2476			389	
Turn Bay Length (ft)	475		475	50			425			130		130
Base Capacity (vph)	381	382	516	94	136		66	2118		96	2025	1290
Starvation Cap Reductn	0	0	0	0	0		0	0		0	106	0
Spillback Cap Reductn	0	0	0	0	1		0	72		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.77	0.78	0.18	0.30	0.41		0.27	0.67		0.21	0.86	0.10

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 94 (63%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 29.5		Intersection LOS: C	
Intersection Capacity Utilization 74.1%		ICU Level of Service D	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Bluebonnet & Anselmo



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Lane Configurations									
Volume (vph)	295	95	1545	357	122	1412			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	0	100		150	350				
Storage Lanes	2	1		1	1				
Taper Length (ft)	25				25				
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.91			
Frt		0.850		0.850					
Flt Protected	0.950				0.950				
Satd. Flow (prot)	3433	1583	3539	1583	1770	5085			
Flt Permitted	0.950				0.950				
Satd. Flow (perm)	3433	1583	3539	1583	1770	5085			
Right Turn on Red		No		No					
Satd. Flow (RTOR)									
Link Speed (mph)	30		45			45			
Link Distance (ft)	352		390			974			
Travel Time (s)	8.0		5.9			14.8			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95			
Adj. Flow (vph)	311	100	1626	376	128	1486			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	311	100	1626	376	128	1486			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Right	Left	Left			
Median Width(ft)	35		20			20			
Link Offset(ft)	0		0			0			
Crosswalk Width(ft)	16		16			16			
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Turning Speed (mph)	15	9		9	15				
Number of Detectors	1	1	2	1	1	2			
Detector Template									
Leading Detector (ft)	45	45	290	45	45	290			
Trailing Detector (ft)	-6	-6	284	-6	-6	284			
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			
Detector 1 Size(ft)	51	51	51	51	51	51			
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call			
Detector 1 Channel									
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)			284			284			
Detector 2 Size(ft)			6			6			
Detector 2 Type			Extend			Extend			
Detector 2 Channel									
Detector 2 Extend (s)			0.0			0.0			
Turn Type	Prot	pt+ov	NA	pt+ov	Prot	NA			
Protected Phases	4	4 3	1	1 4	3	2	5	7	8
Permitted Phases									
Detector Phase	4	4 3	1	1 4	3	2			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Switch Phase									
Minimum Initial (s)	4.0		24.0		4.0	34.0	4.0	4.0	34.0
Minimum Split (s)	10.0		30.0		10.0	40.0	22.0	22.0	40.0
Total Split (s)	40.0		88.0		22.0	110.0	68.0	42.0	40.0
Total Split (%)	26.7%		58.7%		14.7%	73.3%	45%	28%	27%
Maximum Green (s)	35.0		82.0		16.0	104.0	62.0	36.0	34.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0			
Total Lost Time (s)	5.0		6.0		6.0	6.0			
Lead/Lag			Lag		Lead		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	
Vehicle Extension (s)	2.5		4.3		2.0	4.3	2.5	3.0	4.3
Minimum Gap (s)	0.2		2.2		0.2	2.2	0.2	3.0	2.2
Time Before Reduce (s)	0.0		20.0		0.0	30.0	0.0	0.0	30.0
Time To Reduce (s)	0.0		15.0		0.0	15.0	0.0	0.0	15.0
Recall Mode	None		Min		None	C-Min	Max	None	Min
Walk Time (s)							5.0	5.0	
Flash Dont Walk (s)							11.0	11.0	
Pedestrian Calls (#/hr)							0	0	
Act Effct Green (s)	35.0	55.5	83.5	123.5	14.5	104.0			
Actuated g/C Ratio	0.23	0.37	0.56	0.82	0.10	0.69			
v/c Ratio	0.39	0.17	0.83	0.29	0.75	0.42			
Control Delay	25.6	18.2	20.4	3.8	101.8	1.3			
Queue Delay	0.0	0.0	0.5	0.0	0.0	0.0			
Total Delay	25.6	18.2	20.9	3.8	101.8	1.3			
LOS	C	B	C	A	F	A			
Approach Delay	23.8		17.7			9.2			
Approach LOS	C		B			A			
Queue Length 50th (ft)	87	43	341	67	131	6			
Queue Length 95th (ft)	118	82	725	146	#211	32			
Internal Link Dist (ft)	272		310			894			
Turn Bay Length (ft)		100		150	350				
Base Capacity (vph)	801	605	1979	1294	193	3525			
Starvation Cap Reductn	0	0	86	0	0	0			
Spillback Cap Reductn	0	0	0	0	0	0			
Storage Cap Reductn	0	0	0	0	0	0			
Reduced v/c Ratio	0.39	0.17	0.86	0.29	0.66	0.42			

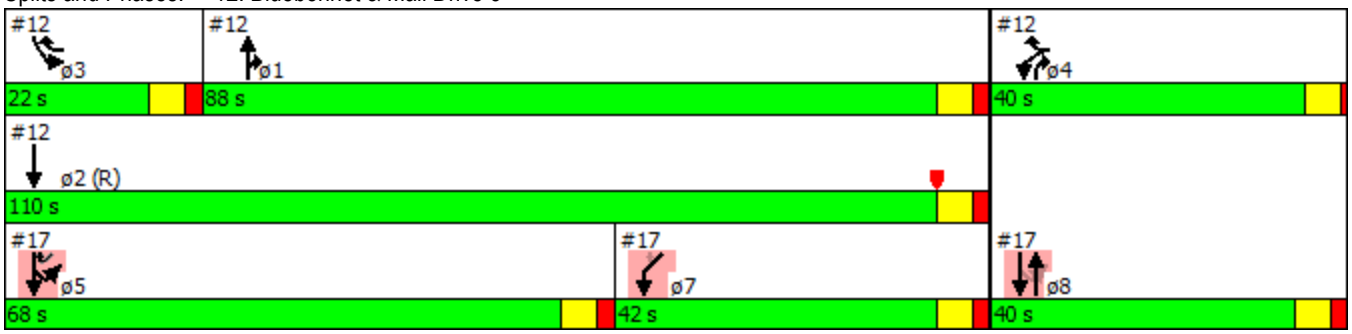
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 98 (65%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 105			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 14.9		Intersection LOS: B	
Intersection Capacity Utilization 72.0%		ICU Level of Service C	

Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.

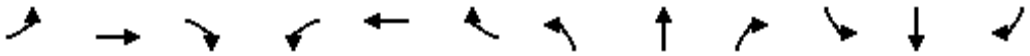
Queue shown is maximum after two cycles.

Splits and Phases: 12: Bluebonnet & Mall Drive 3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	601	258	200	68	52	72	58	1547	34	195	1264	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	140		140	200		200	200		160
Storage Lanes	2		0	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		0.934				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3306	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3306	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		133										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1050			403			974			1065	
Travel Time (s)		23.9			9.2			14.8			16.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	633	272	211	72	55	76	61	1628	36	205	1331	129
Shared Lane Traffic (%)												
Lane Group Flow (vph)	633	483	0	72	55	76	61	1628	36	205	1331	129
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			36			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pt+ov
Protected Phases	3	2		9	8	8 6	1	10	10 9	6	5	5 3
Permitted Phases												
Detector Phase	3	2		9	8	8 6	1	10	10 9	6	5	5 3

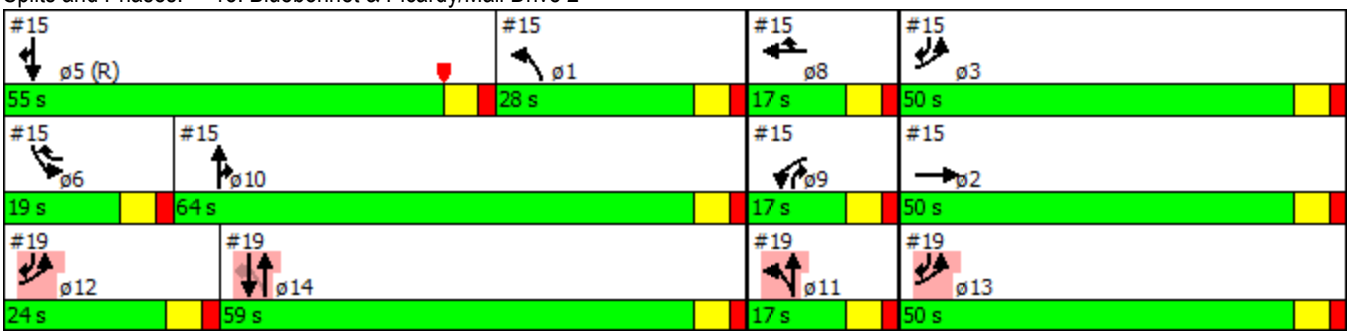
Lane Group	ø11	ø12	ø13	ø14
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	11	12	13	14
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	21.0		3.0	21.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		11.0	27.0		11.0	27.0	
Total Split (s)	50.0	50.0		17.0	17.0		28.0	64.0		19.0	55.0	
Total Split (%)	33.3%	33.3%		11.3%	11.3%		18.7%	42.7%		12.7%	36.7%	
Maximum Green (s)	44.0	44.0		11.0	11.0		22.0	58.0		13.0	49.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.0		1.0	1.0		3.0	4.3		1.0	4.3	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	28.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	15.0	
Recall Mode	None	None		None	None		None	None		None	C-Min	
Act Effct Green (s)	32.2	32.2		7.7	7.7	37.1	24.7	56.7	70.4	29.3	63.8	102.0
Actuated g/C Ratio	0.21	0.21		0.05	0.05	0.25	0.16	0.38	0.47	0.20	0.43	0.68
v/c Ratio	0.86	0.59		0.41	0.30	0.19	0.21	0.85	0.05	0.31	0.62	0.12
Control Delay	68.6	40.3		68.2	65.2	46.6	30.3	25.4	6.5	54.4	6.6	2.1
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.6	40.3		68.2	65.2	46.6	30.3	25.4	6.5	54.4	6.6	2.1
LOS	E	D		E	E	D	C	C	A	D	A	A
Approach Delay		56.4			59.3			25.2			12.1	
Approach LOS		E			E			C			B	
Queue Length 50th (ft)	310	164		38	30	53	49	563	15	51	45	5
Queue Length 95th (ft)	359	211		67	56	120	m57	423	m10	112	72	13
Internal Link Dist (ft)		970			323			894			985	
Turn Bay Length (ft)	150			140		140	200		200	200		160
Base Capacity (vph)	1007	1063		251	259	425	328	1977	767	671	2163	1073
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	1		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.45		0.29	0.21	0.18	0.19	0.82	0.05	0.31	0.62	0.12

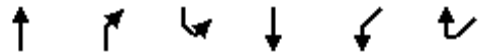
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 81 (54%), Referenced to phase 5:SBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 29.4		Intersection LOS: C	
Intersection Capacity Utilization 75.9%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 15: Bluebonnet & Picardy/Mall Drive 2

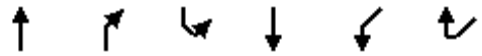


Lane Group	ø11	ø12	ø13	ø14
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	3.0
Minimum Split (s)	10.0	22.0	10.0	9.0
Total Split (s)	17.0	24.0	50.0	59.0
Total Split (%)	11%	16%	33%	39%
Maximum Green (s)	11.0	18.0	44.0	53.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	1.0
Minimum Gap (s)	3.0	3.0	3.0	0.2
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



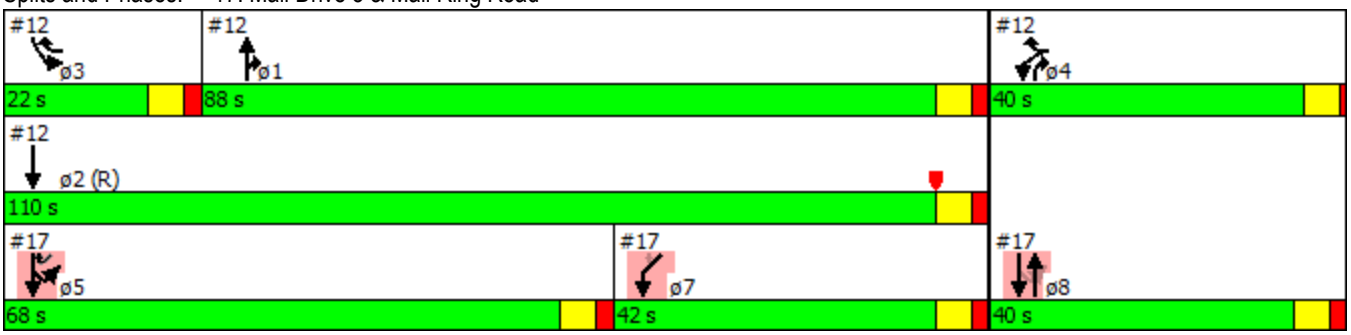
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Lane Configurations										
Volume (vph)	222	193	243	236	190	167				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00				
Frt	0.930					0.850				
Flt Protected			0.950		0.950					
Satd. Flow (prot)	3291	0	1770	1863	1770	1583				
Flt Permitted			0.324		0.950					
Satd. Flow (perm)	3291	0	604	1863	1770	1583				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)	136					182				
Link Speed (mph)	30			30	30					
Link Distance (ft)	797			352	1050					
Travel Time (s)	18.1			8.0	23.9					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Adj. Flow (vph)	241	210	264	257	207	182				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	451	0	264	257	207	182				
Enter Blocked Intersection	No	No	No	No	No	No				
Lane Alignment	Left	Right	Left	Left	Left	Right				
Median Width(ft)	0			12	12					
Link Offset(ft)	0			0	0					
Crosswalk Width(ft)	16			16	16					
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)		9	15		15	9				
Number of Detectors	2		1	2	1	1				
Detector Template	Thru		Left	Thru	Left	Right				
Leading Detector (ft)	100		20	100	20	20				
Trailing Detector (ft)	0		0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0				
Detector 1 Size(ft)	6		20	6	20	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel										
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0				
Detector 2 Position(ft)	94			94						
Detector 2 Size(ft)	6			6						
Detector 2 Type	Cl+Ex			Cl+Ex						
Detector 2 Channel										
Detector 2 Extend (s)	0.0			0.0						
Turn Type	NA		D.P+P	NA	Prot	pm+ov				
Protected Phases	8		5	5 8	7	5	1	2	3	4
Permitted Phases			8			7				
Detector Phase	8		5	5 8	7	5				
Switch Phase										
Minimum Initial (s)	34.0		4.0		4.0	4.0	24.0	34.0	4.0	4.0
Minimum Split (s)	40.0		22.0		22.0	22.0	30.0	40.0	10.0	10.0

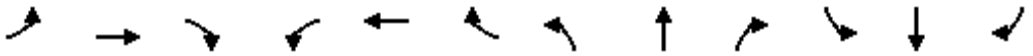


Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Total Split (s)	40.0		68.0		42.0	68.0	88.0	110.0	22.0	40.0
Total Split (%)	26.7%		45.3%		28.0%	45.3%	59%	73%	15%	27%
Maximum Green (s)	34.0		62.0		36.0	62.0	82.0	104.0	16.0	35.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0		2.0	2.0	2.0	2.0	2.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0				
Total Lost Time (s)	6.0		6.0		6.0	6.0				
Lead/Lag			Lead		Lag	Lead	Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	Yes				
Vehicle Extension (s)	4.3		2.5		3.0	2.5	4.3	4.3	2.0	2.5
Minimum Gap (s)	2.2		0.2		3.0	0.2	2.2	2.2	0.2	0.2
Time Before Reduce (s)	30.0		0.0		0.0	0.0	20.0	30.0	0.0	0.0
Time To Reduce (s)	15.0		0.0		0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	Min		Max		None	Max	Min	C-Min	None	None
Walk Time (s)			5.0		5.0	5.0				
Flash Dont Walk (s)			11.0		11.0	11.0				
Pedestrian Calls (#/hr)			0		0	0				
Act Effct Green (s)	34.0		106.7	112.7	25.3	104.0				
Actuated g/C Ratio	0.23		0.71	0.75	0.17	0.69				
v/c Ratio	0.53		0.27	0.18	0.69	0.16				
Control Delay	37.5		9.8	7.0	40.8	0.7				
Queue Delay	0.0		0.7	0.8	0.0	0.0				
Total Delay	37.5		10.5	7.8	40.8	0.7				
LOS	D		B	A	D	A				
Approach Delay	37.5			9.2	22.0					
Approach LOS	D			A	C					
Queue Length 50th (ft)	143		72	70	118	0				
Queue Length 95th (ft)	202		122	117	133	0				
Internal Link Dist (ft)	717			272	970					
Turn Bay Length (ft)										
Base Capacity (vph)	851		994	1399	424	1153				
Starvation Cap Reductn	0		444	846	0	0				
Spillback Cap Reductn	0		0	0	0	0				
Storage Cap Reductn	0		0	0	0	0				
Reduced v/c Ratio	0.53		0.48	0.46	0.49	0.16				

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 98 (65%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 105			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 22.2		Intersection LOS: C	
Intersection Capacity Utilization 67.3%		ICU Level of Service C	
Analysis Period (min) 15			

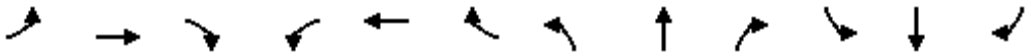
Splits and Phases: 17: Mall Drive 3 & Mall Ring Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	122	2064	35	203	1437	168	0	0	404	231	14	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		200	300		100	0		0	65		0
Storage Lanes	1		1	2		1	0		2	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.863	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1608	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1608	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109			22			302		103	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1065			834			318			371	
Travel Time (s)		16.1			12.6			7.2			8.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	128	2173	37	214	1513	177	0	0	425	243	15	153
Shared Lane Traffic (%)												
Lane Group Flow (vph)	128	2173	37	214	1513	177	0	0	425	243	168	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1			1	1	1	
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45			45	45	45	
Trailing Detector (ft)	-6	284	-6	-6	284	-6			-6	-6	-6	
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			-6	-6	-6	
Detector 1 Size(ft)	51	51	51	51	51	51			51	51	51	
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA	Perm	Prot	NA	custom			Over	Perm	NA	
Protected Phases	1	7		5	4	2			5		2	
Permitted Phases			7			4				2		
Detector Phase	1	7	7	5	4	2			5	2	2	

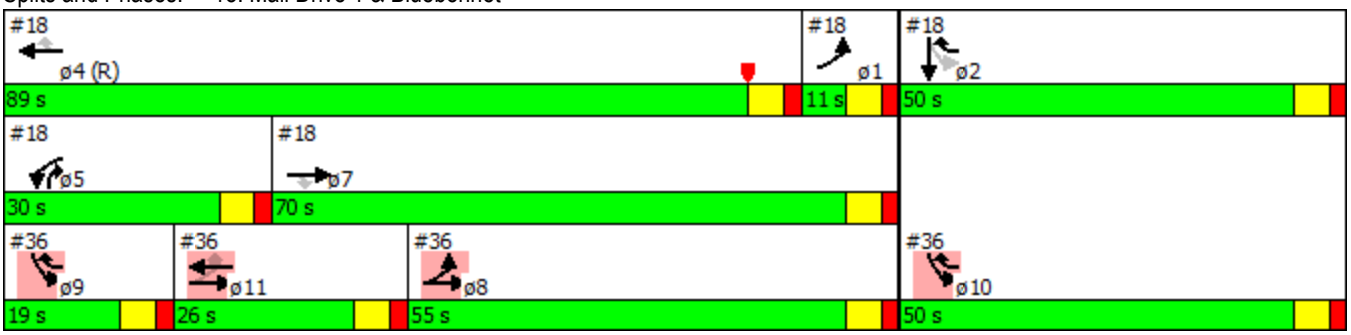
Lane Group	ø8	ø9	ø10	ø11
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	8	9	10	11
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	14.0	4.0	14.0	4.0			4.0	4.0	4.0	
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	10.0			10.0	10.0	10.0	
Total Split (s)	11.0	70.0	70.0	30.0	89.0	50.0			30.0	50.0	50.0	
Total Split (%)	7.3%	46.7%	46.7%	20.0%	59.3%	33.3%			20.0%	33.3%	33.3%	
Maximum Green (s)	5.0	64.0	64.0	24.0	83.0	44.0			24.0	44.0	44.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0			6.0	6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	4.3	4.3	2.5	4.3	2.0			2.5	2.0	2.0	
Minimum Gap (s)	0.2	2.2	2.2	0.2	2.2	0.2			0.2	0.2	0.2	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	34.0	0.0			0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	15.0	0.0			0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Min	None			None	None	None	
Act Effct Green (s)	42.9	91.4	91.4	15.1	63.6	95.1			15.1	25.6	25.6	
Actuated g/C Ratio	0.29	0.61	0.61	0.10	0.42	0.63			0.10	0.17	0.17	
v/c Ratio	0.25	0.70	0.04	0.62	0.70	0.17			0.77	0.81	0.47	
Control Delay	29.5	13.3	0.1	75.2	30.2	8.7			39.6	79.2	25.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			0.1	0.0	0.0	
Total Delay	29.5	13.3	0.1	75.2	30.2	8.7			39.7	79.2	25.3	
LOS	C	B	A	E	C	A			D	E	C	
Approach Delay		13.9			33.2						57.2	
Approach LOS		B			C						E	
Queue Length 50th (ft)	44	267	0	101	412	46			81	232	56	
Queue Length 95th (ft)	m113	360	m0	138	463	m57			139	311	122	
Internal Link Dist (ft)		985			754			238			291	
Turn Bay Length (ft)	140		200	300		100				65		
Base Capacity (vph)	505	3097	1006	549	2813	1012			699	519	544	
Starvation Cap Reductn	0	0	0	0	0	0			11	0	0	
Spillback Cap Reductn	0	0	0	0	0	0			0	0	0	
Storage Cap Reductn	0	0	0	0	0	0			0	0	0	
Reduced v/c Ratio	0.25	0.70	0.04	0.39	0.54	0.17			0.62	0.47	0.31	

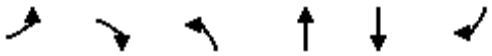
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 103 (69%), Referenced to phase 4:WBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 26.8		Intersection LOS: C	
Intersection Capacity Utilization 81.8%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 18: Mall Drive 1 & Bluebonnet



Lane Group	ø8	ø9	ø10	ø11
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	14.0
Minimum Split (s)	22.0	10.0	22.0	20.0
Total Split (s)	55.0	19.0	50.0	26.0
Total Split (%)	37%	13%	33%	17%
Maximum Green (s)	49.0	13.0	44.0	20.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	4.3
Minimum Gap (s)	3.0	3.0	3.0	2.2
Time Before Reduce (s)	0.0	0.0	0.0	34.0
Time To Reduce (s)	0.0	0.0	0.0	15.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Lane Configurations												
Volume (vph)	295	191	133	304	166	59						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Frt		0.850				0.850						
Flt Protected	0.950		0.950									
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583						
Flt Permitted	0.950		0.596									
Satd. Flow (perm)	1770	1583	1110	1863	1863	1583						
Right Turn on Red		Yes				Yes						
Satd. Flow (RTOR)		171				64						
Link Speed (mph)	30			30	30							
Link Distance (ft)	403			1050	819							
Travel Time (s)	9.2			23.9	18.6							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	321	208	145	330	180	64						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	321	208	145	330	180	64						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Right	Left	Left	Left	Right						
Median Width(ft)	36			12	0							
Link Offset(ft)	0			0	0							
Crosswalk Width(ft)	16			16	16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15	9	15			9						
Number of Detectors	1	1	1	2	2	1						
Detector Template	Left	Right	Left	Thru	Thru	Right						
Leading Detector (ft)	20	20	20	100	100	20						
Trailing Detector (ft)	0	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0	0						
Detector 1 Size(ft)	20	20	20	6	6	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)				94	94							
Detector 2 Size(ft)				6	6							
Detector 2 Type				Cl+Ex	Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)				0.0	0.0							
Turn Type	Prot	Free	D.P+P	NA	NA	pm+ov						
Protected Phases	12 13		11	11 14	14	12 13	1	2	3	5	6	8
Permitted Phases		Free	14			14						
Detector Phase	12 13		11	11 14	14	12 13						
Switch Phase												
Minimum Initial (s)			4.0		3.0		3.0	3.0	3.0	21.0	3.0	3.0
Minimum Split (s)			10.0		9.0		11.0	9.0	9.0	27.0	11.0	9.0

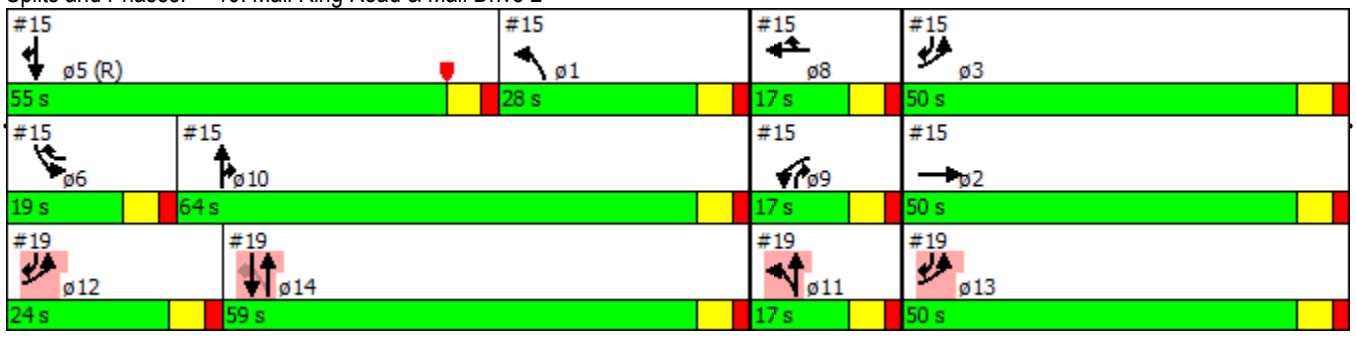
Lane Group	ø9	ø10	ø12	ø13
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	9	10	12	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	21.0	4.0	4.0
Minimum Split (s)	9.0	27.0	22.0	10.0

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Total Split (s)			17.0		59.0		28.0	50.0	50.0	55.0	19.0	17.0
Total Split (%)			11.3%		39.3%		19%	33%	33%	37%	13%	11%
Maximum Green (s)			11.0		53.0		22.0	44.0	44.0	49.0	13.0	11.0
Yellow Time (s)			4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)			2.0		2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0		0.0							
Total Lost Time (s)			6.0		6.0							
Lead/Lag					Lag		Lag			Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0		1.0		3.0	1.0	1.5	4.3	1.0	1.0
Minimum Gap (s)			3.0		0.2		0.2	0.2	0.2	2.2	0.2	0.2
Time Before Reduce (s)			0.0		0.0		0.0	0.0	0.0	28.0	0.0	0.0
Time To Reduce (s)			0.0		0.0		0.0	0.0	0.0	15.0	0.0	0.0
Recall Mode			None		None		None	None	None	C-Min	None	None
Act Effct Green (s)	67.8	150.0	64.2	70.2	56.4	130.3						
Actuated g/C Ratio	0.45	1.00	0.43	0.47	0.38	0.87						
v/c Ratio	0.40	0.13	0.29	0.38	0.26	0.05						
Control Delay	19.4	0.2	42.8	44.8	32.7	0.1						
Queue Delay	0.4	0.0	0.0	0.0	0.0	0.0						
Total Delay	19.8	0.2	42.8	44.8	32.7	0.1						
LOS	B	A	D	D	C	A						
Approach Delay	12.1			44.2	24.1							
Approach LOS	B			D	C							
Queue Length 50th (ft)	83	0	88	208	174	0						
Queue Length 95th (ft)	168	0	186	420	241	0						
Internal Link Dist (ft)	323			970	739							
Turn Bay Length (ft)												
Base Capacity (vph)	803	1583	547	911	717	1373						
Starvation Cap Reductn	170	0	0	0	0	0						
Spillback Cap Reductn	0	0	0	0	0	0						
Storage Cap Reductn	0	0	0	0	0	0						
Reduced v/c Ratio	0.51	0.13	0.27	0.36	0.25	0.05						

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 81 (54%), Referenced to phase 5:SBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 26.7 Intersection LOS: C
Intersection Capacity Utilization 47.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 19: Mall Ring Road & Mall Drive 2



Lane Group	ø9	ø10	ø12	ø13
Total Split (s)	17.0	64.0	24.0	50.0
Total Split (%)	11%	43%	16%	33%
Maximum Green (s)	11.0	58.0	18.0	44.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?			Yes	
Vehicle Extension (s)	1.0	4.3	3.0	3.0
Minimum Gap (s)	0.2	0.2	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

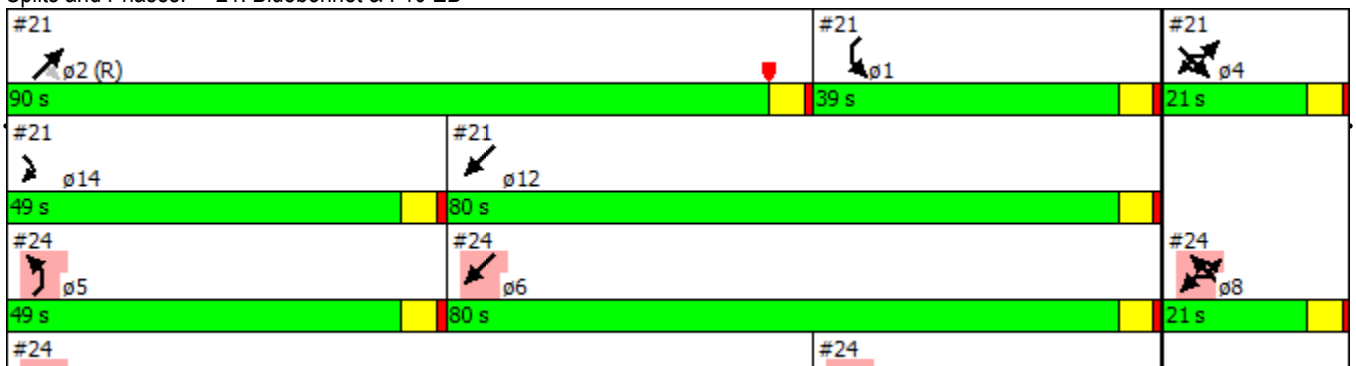
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	205	1	631	0	0	0	0	2176	521	609	1179	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		375	0		0	400		0	300		0
Storage Lanes	1		1	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.88	1.00	1.00	1.00	1.00	0.86	1.00	0.97	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950	0.953								0.950		
Satd. Flow (prot)	1681	1686	2787	0	0	0	0	6408	1583	3433	3539	0
Flt Permitted	0.950	0.953								0.950		
Satd. Flow (perm)	1681	1686	2787	0	0	0	0	6408	1583	3433	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			68						361			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1072			1024			834			410	
Travel Time (s)		24.4			23.3			12.6			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	216	1	664	0	0	0	0	2291	548	641	1241	0
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	108	109	664	0	0	0	0	2291	548	641	1241	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			37	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					2	1	1	2	
Detector Template												
Leading Detector (ft)	45	45	45					290	45	45	290	
Trailing Detector (ft)	-6	-6	-6					284	-6	-6	284	
Detector 1 Position(ft)	-6	-6	-6					-6	-6	-6	-6	
Detector 1 Size(ft)	51	51	51					51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	custom					NA	Perm	Prot	NA	
Protected Phases	4	4	4 14					2		1	12	
Permitted Phases									2			
Detector Phase	4	4	4 14					2	2	1	12	

Lane Group	ø5	ø6	ø8	ø14	ø16	ø18
Lane Configurations						
Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	5	6	8	14	16	18
Permitted Phases						
Detector Phase						

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)	3.0	3.0						10.0	10.0	3.0	10.0	
Minimum Split (s)	20.0	20.0						20.0	20.0	8.0	20.0	
Total Split (s)	21.0	21.0						90.0	90.0	39.0	80.0	
Total Split (%)	14.0%	14.0%						60.0%	60.0%	26.0%	53.3%	
Maximum Green (s)	16.0	16.0						85.0	85.0	34.0	75.0	
Yellow Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0	2.0	2.0	6.0	
Recall Mode	None	None						C-Max	C-Max	None	Max	
Act Effct Green (s)	16.0	16.0	65.0					85.0	85.0	34.0	75.0	
Actuated g/C Ratio	0.11	0.11	0.43					0.57	0.57	0.23	0.50	
v/c Ratio	0.60	0.61	0.53					0.63	0.52	0.82	0.70	
Control Delay	78.9	79.2	29.7					21.2	7.1	34.9	7.9	
Queue Delay	0.0	0.0	0.0					0.0	0.0	5.0	0.8	
Total Delay	78.9	79.2	29.7					21.2	7.1	39.9	8.7	
LOS	E	E	C					C	A	D	A	
Approach Delay		41.8						18.5			19.3	
Approach LOS		D						B			B	
Queue Length 50th (ft)	108	109	241					501	98	314	71	
Queue Length 95th (ft)	180	182	309					585	290	352	82	
Internal Link Dist (ft)		992			944			754			330	
Turn Bay Length (ft)	375		375							300		
Base Capacity (vph)	179	179	1246					3631	1053	778	1769	
Starvation Cap Reductn	0	0	0					0	0	88	239	
Spillback Cap Reductn	0	0	0					102	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.60	0.61	0.53					0.65	0.52	0.93	0.81	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 13 (9%), Referenced to phase 2:NET, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 22.4		Intersection LOS: C	
Intersection Capacity Utilization 77.3%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 21: Bluebonnet & I-10 EB



Lane Group	ø5	ø6	ø8	ø14	ø16	ø18
Switch Phase						
Minimum Initial (s)	3.0	10.0	3.0	3.0	10.0	4.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	49.0	80.0	21.0	49.0	90.0	39.0
Total Split (%)	33%	53%	14%	33%	60%	26%
Maximum Green (s)	44.0	75.0	16.0	44.0	85.0	34.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?						Yes
Vehicle Extension (s)	3.5	6.0	2.0	3.5	2.0	3.0
Recall Mode	Max	Max	None	Max	Max	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	0	0	154	4	384	746	1635	0	0	1634	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		525	300		0	575		575
Storage Lanes	0		0	1		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.95	1.00	1.00	0.91	0.91
Frt						0.850					0.977	
Flt Protected				0.950	0.955		0.950					
Satd. Flow (prot)	0	0	0	1681	1690	1583	3433	3539	0	0	4968	0
Flt Permitted				0.950	0.955		0.950					
Satd. Flow (perm)	0	0	0	1681	1690	1583	3433	3539	0	0	4968	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						51					35	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		894			1008			410			866	
Travel Time (s)		20.3			22.9			6.2			13.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	162	4	404	785	1721	0	0	1720	316
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	0	0	83	83	404	785	1721	0	0	2036	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			40			50	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			2	
Detector Template												
Leading Detector (ft)				45	45	45	45	290			290	
Trailing Detector (ft)				-6	-6	-6	-6	284			284	
Detector 1 Position(ft)				-6	-6	-6	-6	-6			-6	
Detector 1 Size(ft)				51	51	51	51	51			51	
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call			Call	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type				Split	NA	custom	Prot	NA			NA	
Protected Phases				8	8	8 18	5	16			6	
Permitted Phases												
Detector Phase				8	8	8 18	5	16			6	

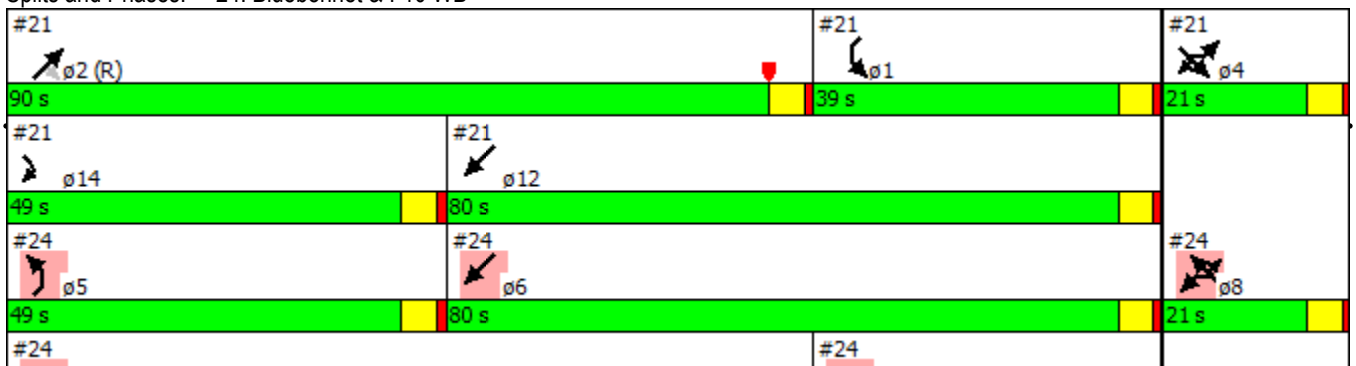
Lane Group	ø1	ø2	ø4	ø12	ø14	ø18
Lane Configurations						
Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	1	2	4	12	14	18
Permitted Phases						
Detector Phase						

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)				3.0	3.0		3.0	10.0			10.0	
Minimum Split (s)				20.0	20.0		8.0	20.0			20.0	
Total Split (s)				21.0	21.0		49.0	90.0			80.0	
Total Split (%)				14.0%	14.0%		32.7%	60.0%			53.3%	
Maximum Green (s)				16.0	16.0		44.0	85.0			75.0	
Yellow Time (s)				4.0	4.0		4.0	4.0			4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				5.0	5.0		5.0	5.0			5.0	
Lead/Lag							Lead	Lead			Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0		3.5	2.0			6.0	
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)				16.0	16.0	55.0	44.0	85.0			75.0	
Actuated g/C Ratio				0.11	0.11	0.37	0.29	0.57			0.50	
v/c Ratio				0.46	0.46	0.66	0.78	0.86			0.81	
Control Delay				72.1	72.0	40.5	34.1	11.6			40.8	
Queue Delay				0.0	0.0	0.0	4.3	0.7			0.8	
Total Delay				72.1	72.0	40.5	38.4	12.3			41.6	
LOS				E	E	D	D	B			D	
Approach Delay					49.7			20.5			41.6	
Approach LOS					D			C			D	
Queue Length 50th (ft)				82	82	290	152	855			707	
Queue Length 95th (ft)				143	143	414	302	960			764	
Internal Link Dist (ft)		814			928			330			786	
Turn Bay Length (ft)						525	300					
Base Capacity (vph)				179	180	612	1007	2005			2501	
Starvation Cap Reductn				0	0	0	153	0			197	
Spillback Cap Reductn				0	0	1	0	86			94	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.46	0.46	0.66	0.92	0.90			0.88	

Intersection Summary

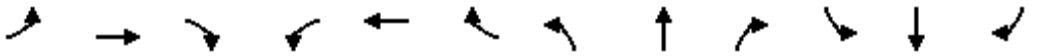
Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 13 (9%), Referenced to phase 2:NET, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 32.1 Intersection LOS: C
Intersection Capacity Utilization 77.3% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 24: Bluebonnet & I-10 WB

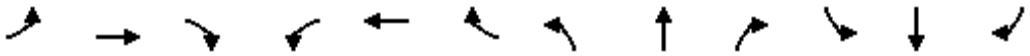


Lane Group	ø1	ø2	ø4	ø12	ø14	ø18
Switch Phase						
Minimum Initial (s)	3.0	10.0	3.0	10.0	3.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	8.0	20.0
Total Split (s)	39.0	90.0	21.0	80.0	49.0	39.0
Total Split (%)	26%	60%	14%	53%	33%	26%
Maximum Green (s)	34.0	85.0	16.0	75.0	44.0	34.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lead		Lag	Lead	Lag
Lead-Lag Optimize?						Yes
Vehicle Extension (s)	2.0	2.0	2.0	6.0	3.5	3.0
Recall Mode	None	C-Max	None	Max	Max	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	98	16	97	557	84	192	43	1783	192	39	1280	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		200	300		175	175		175
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.871			0.937	0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3083	0	3433	1658	1504	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.099			0.050		
Satd. Flow (perm)	1770	3083	0	3433	1658	1504	184	3539	1583	93	3539	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		92										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		475			1072			866			1049	
Travel Time (s)		10.8			24.4			13.1			15.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	103	17	102	586	88	202	45	1877	202	41	1347	14
Shared Lane Traffic (%)						31%						
Lane Group Flow (vph)	103	119	0	586	151	139	45	1877	202	41	1347	14
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		60			60			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4		3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases							2			6		
Detector Phase	7	4		3	8	8 1	5	2	2 3	1	6	6 7

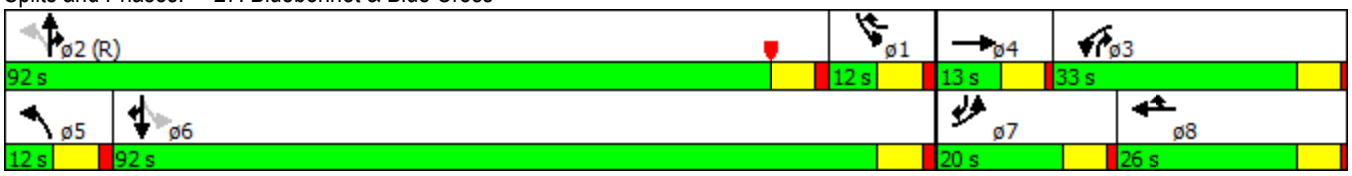


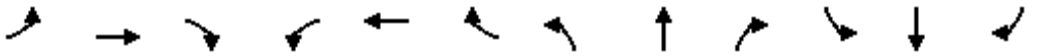
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	5.0		5.0	3.0		3.0	20.0		5.0	20.0	
Minimum Split (s)	8.9	10.9		10.9	8.9		9.6	26.6		11.6	26.6	
Total Split (s)	20.0	13.0		33.0	26.0		12.0	92.0		12.0	92.0	
Total Split (%)	13.3%	8.7%		22.0%	17.3%		8.0%	61.3%		8.0%	61.3%	
Maximum Green (s)	14.1	7.1		27.1	20.1		5.4	85.4		5.4	85.4	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	0.9	0.9		0.9	0.9		1.6	1.6		1.6	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.9	5.9		5.9	5.9		6.6	6.6		6.6	6.6	
Lead/Lag	Lead	Lead		Lag	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		2.5	1.5		1.5	5.0		1.5	5.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	11.8	5.9		27.7	21.8	28.4	85.5	85.5	119.1	88.5	88.5	106.2
Actuated g/C Ratio	0.08	0.04		0.18	0.15	0.19	0.57	0.57	0.79	0.59	0.59	0.71
v/c Ratio	0.74	0.57		0.93	0.63	0.49	0.28	0.93	0.16	0.34	0.65	0.01
Control Delay	96.9	31.7		81.2	73.3	51.9	10.5	17.7	2.0	39.5	21.4	5.9
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0
Total Delay	96.9	31.7		81.2	73.3	51.9	10.5	19.3	2.0	39.5	21.4	5.9
LOS	F	C		F	E	D	B	B	A	D	C	A
Approach Delay		62.0			75.2			17.5			21.8	
Approach LOS		E			E			B			C	
Queue Length 50th (ft)	100	13		291	148	103	9	254	17	16	483	3
Queue Length 95th (ft)	#167	48		#410	#238	165	m14	695	m34	32	575	m7
Internal Link Dist (ft)		395			992			786			969	
Turn Bay Length (ft)	75			200		200	300		175	175		175
Base Capacity (vph)	166	233		638	241	284	161	2016	1244	121	2086	1144
Starvation Cap Reductn	0	0		0	0	0	0	56	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	31	0	0	20	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.51		0.92	0.63	0.49	0.28	0.96	0.16	0.34	0.65	0.01

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 17 (11%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 120			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.93			
Intersection Signal Delay: 31.9		Intersection LOS: C	
Intersection Capacity Utilization 84.7%		ICU Level of Service E	
Analysis Period (min) 15			

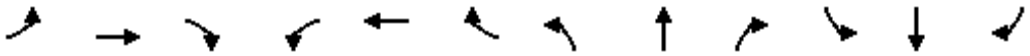
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 27: Bluebonnet & Blue Cross





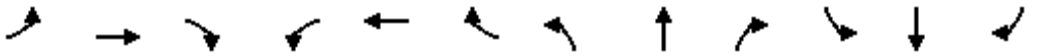
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	1	16	35	0	4	33	2024	16	2	1281	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		130	150		185
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.921			0.987				0.850			0.850
Flt Protected		0.981			0.957		0.950			0.950		
Satd. Flow (prot)	0	1683	0	0	1759	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.895			0.726		0.193			0.073		
Satd. Flow (perm)	0	1535	0	0	1335	0	360	3539	1583	136	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			22				22			22
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1129			1330			1049			1811	
Travel Time (s)		25.7			30.2			15.9			27.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	1	17	37	0	4	35	2131	17	2	1348	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	29	0	0	41	0	35	2131	17	2	1348	8
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



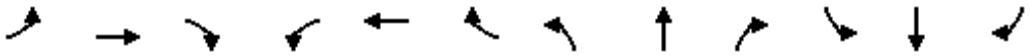
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	11.0	11.0		11.0	11.0		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	30.0	30.0		30.0	30.0		120.0	120.0	120.0	120.0	120.0	120.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		80.0%	80.0%	80.0%	80.0%	80.0%	80.0%
Maximum Green (s)	24.0	24.0		24.0	24.0		114.0	114.0	114.0	114.0	114.0	114.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		7.7			7.7		133.7	133.7	133.7	133.7	133.7	133.7
Actuated g/C Ratio		0.05			0.05		0.89	0.89	0.89	0.89	0.89	0.89
v/c Ratio		0.31			0.46		0.11	0.68	0.01	0.02	0.43	0.01
Control Delay		45.6			54.5		1.0	1.8	0.1	1.0	1.9	0.0
Queue Delay		0.0			0.0		0.0	0.3	0.0	0.0	0.0	0.0
Total Delay		45.6			54.5		1.0	2.1	0.1	1.0	1.9	0.0
LOS		D			D		A	A	A	A	A	A
Approach Delay		45.6			54.5			2.1			1.9	
Approach LOS		D			D			A			A	
Queue Length 50th (ft)		11			18		1	76	0	0	177	0
Queue Length 95th (ft)		46			60		m3	92	m0	m0	39	m0
Internal Link Dist (ft)		1049			1250			969			1731	
Turn Bay Length (ft)							150		130	150		185
Base Capacity (vph)		259			232		321	3155	1413	121	3155	1413
Starvation Cap Reductn		0			0		0	364	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.11			0.18		0.11	0.76	0.01	0.02	0.43	0.01

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 68 (45%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 2.9		Intersection LOS: A	
Intersection Capacity Utilization 70.6%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 30: Bluebonnet & Gail



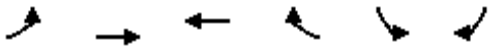
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	9	77	20	4	5	181	1765	92	11	1193	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.890			0.977				0.850			0.850
Flt Protected		0.995			0.966		0.950			0.950		
Satd. Flow (prot)	0	1650	0	0	1758	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.963			0.416		0.212			0.103		
Satd. Flow (perm)	0	1597	0	0	757	0	395	3539	1583	192	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		81			5				69			34
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1794			2049			1811			2409	
Travel Time (s)		40.8			46.6			27.4			36.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	9	9	81	21	4	5	191	1858	97	12	1256	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	99	0	0	30	0	191	1858	97	12	1256	34
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	9.2	9.2		9.2	9.2		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	30.0	30.0		30.0	30.0		120.0	120.0	120.0	120.0	120.0	120.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		80.0%	80.0%	80.0%	80.0%	80.0%	80.0%
Maximum Green (s)	23.8	23.8		23.8	23.8		114.0	114.0	114.0	114.0	114.0	114.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.2	1.2		1.2	1.2		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.2			6.2		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		8.3			8.3		129.5	129.5	129.5	129.5	129.5	129.5
Actuated g/C Ratio		0.06			0.06		0.86	0.86	0.86	0.86	0.86	0.86
v/c Ratio		0.60			0.65		0.56	0.61	0.07	0.07	0.41	0.02
Control Delay		34.6			113.8		11.4	7.9	1.6	2.9	2.7	0.6
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		34.6			113.8		11.4	7.9	1.6	2.9	2.7	0.6
LOS		C			F		B	A	A	A	A	A
Approach Delay		34.6			113.8			7.9			2.7	
Approach LOS		C			F			A			A	
Queue Length 50th (ft)		17			25		105	555	9	1	98	0
Queue Length 95th (ft)		77			62		86	294	m20	6	158	5
Internal Link Dist (ft)		1714			1969			1731			2329	
Turn Bay Length (ft)							150		150	150		150
Base Capacity (vph)		321			124		341	3056	1376	165	3056	1371
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.31			0.24		0.56	0.61	0.07	0.07	0.41	0.02

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 40 (27%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 7.7		Intersection LOS: A	
Intersection Capacity Utilization 96.2%		ICU Level of Service F	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

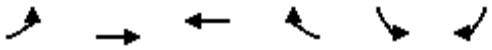
Splits and Phases: 33: Bluebonnet & Oliphant



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Lane Configurations												
Volume (vph)	144	455	124	260	151	100						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.95						
Frt				0.850	0.940							
Flt Protected	0.950				0.971							
Satd. Flow (prot)	1770	1863	1863	1583	3298	0						
Flt Permitted	0.573				0.971							
Satd. Flow (perm)	1067	1863	1863	1583	3298	0						
Right Turn on Red				Yes		Yes						
Satd. Flow (RTOR)				283	109							
Link Speed (mph)		30	30		30							
Link Distance (ft)		819	802		318							
Travel Time (s)		18.6	18.2		7.2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	157	495	135	283	164	109						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	157	495	135	283	273	0						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Right	Left	Right						
Median Width(ft)		12	0		36							
Link Offset(ft)		0	0		0							
Crosswalk Width(ft)		16	16		16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15			9	15	9						
Number of Detectors	1	2	2	1	1							
Detector Template	Left	Thru	Thru	Right	Left							
Leading Detector (ft)	20	100	100	20	20							
Trailing Detector (ft)	0	0	0	0	0							
Detector 1 Position(ft)	0	0	0	0	0							
Detector 1 Size(ft)	20	6	6	20	20							
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex							
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0							
Detector 2 Position(ft)		94	94									
Detector 2 Size(ft)		6	6									
Detector 2 Type		Cl+Ex	Cl+Ex									
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0									
Turn Type	D.P+P	NA	NA	pm+ov	Prot							
Protected Phases	8	8 11	11	9 10	9 10		1	2	4	5	7	9
Permitted Phases	11			11								
Detector Phase	8	8 11	11	9 10	9 10							
Switch Phase												
Minimum Initial (s)	4.0		14.0				4.0	4.0	14.0	4.0	14.0	4.0
Minimum Split (s)	22.0		20.0				10.0	10.0	20.0	10.0	20.0	10.0

Lane Group	ø10
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	10
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	22.0

Lanes, Volumes, Timings
36: Mall Ring Road & Mall Drive 1 **2017 Build PM** 5/18/2016

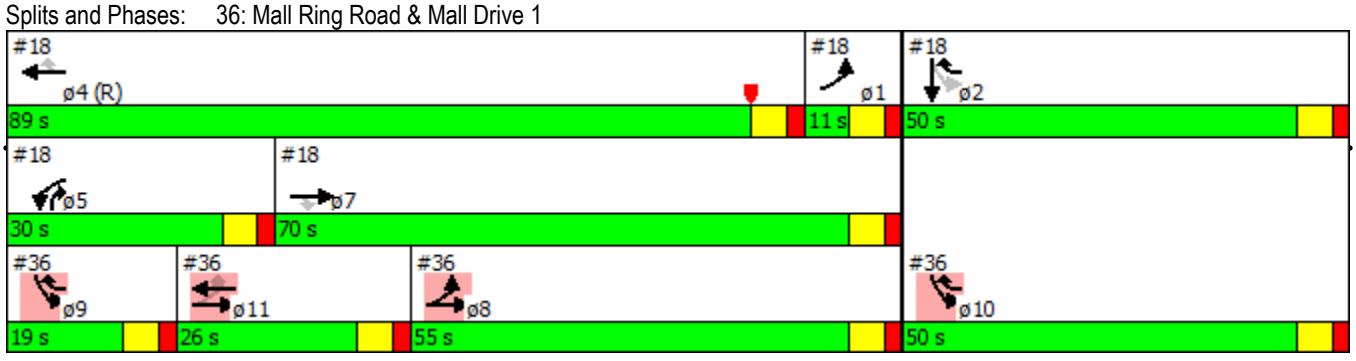


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Total Split (s)	55.0		26.0				11.0	50.0	89.0	30.0	70.0	19.0
Total Split (%)	36.7%		17.3%				7%	33%	59%	20%	47%	13%
Maximum Green (s)	49.0		20.0				5.0	44.0	83.0	24.0	64.0	13.0
Yellow Time (s)	4.0		4.0				4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0				2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0									
Total Lost Time (s)	6.0		6.0									
Lead/Lag			Lag				Lag		Lead	Lead	Lag	Lead
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0		4.3				2.5	2.0	4.3	2.5	4.3	3.0
Minimum Gap (s)	3.0		2.2				0.2	0.2	2.2	0.2	2.2	3.0
Time Before Reduce (s)	0.0		34.0				0.0	0.0	34.0	0.0	0.0	0.0
Time To Reduce (s)	0.0		15.0				0.0	0.0	15.0	0.0	0.0	0.0
Recall Mode	None		None				None	None	C-Min	None	None	None
Act Effct Green (s)	94.4	100.4	27.2	70.8	37.6							
Actuated g/C Ratio	0.63	0.67	0.18	0.47	0.25							
v/c Ratio	0.16	0.40	0.40	0.32	0.30							
Control Delay	6.3	8.0	56.1	2.5	76.7							
Queue Delay	0.0	0.0	0.0	0.0	0.0							
Total Delay	6.3	8.0	56.1	2.5	76.7							
LOS	A	A	E	A	E							
Approach Delay		7.6	19.8		76.7							
Approach LOS		A	B		E							
Queue Length 50th (ft)	52	225	118	0	112							
Queue Length 95th (ft)	82	254	175	38	151							
Internal Link Dist (ft)		739	722		238							
Turn Bay Length (ft)												
Base Capacity (vph)	986	1239	344	896	1103							
Starvation Cap Reductn	0	0	0	0	0							
Spillback Cap Reductn	0	0	0	0	0							
Storage Cap Reductn	0	0	0	0	0							
Reduced v/c Ratio	0.16	0.40	0.39	0.32	0.25							

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 103 (69%), Referenced to phase 4:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 25.4 Intersection LOS: C
Intersection Capacity Utilization 42.1% ICU Level of Service A
Analysis Period (min) 15

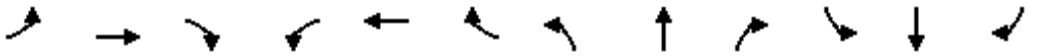
Splits and Phases: 36: Mall Ring Road & Mall Drive 1



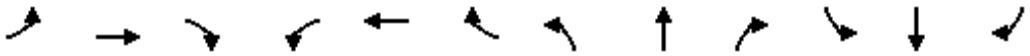
Lane Group	ø10
Total Split (s)	50.0
Total Split (%)	33%
Maximum Green (s)	44.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Minimum Gap (s)	3.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

M.24 2017 BUILD WEEKEND – BLUEBONNET BOULEVARD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	180	719	849	456	852	474	285	636	199	341	618	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		250	325		375	350		0	250		150
Storage Lanes	2		1	2		1	2		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Frt			0.850			0.850		0.964				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3412	0	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3412	0	3433	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								30				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		2445			3864			2201			709	
Travel Time (s)		37.0			58.5			33.3			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	189	757	894	480	897	499	300	669	209	359	651	146
Shared Lane Traffic (%)												
Lane Group Flow (vph)	189	757	894	480	897	499	300	878	0	359	651	146
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45	45	290		45	290	45
Trailing Detector (ft)	-6	284	-6	-6	284	-6	-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6	-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51	51	51		51	51	51
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		284			284			284			284	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Extend			Extend			Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8		7	4	4 5
Permitted Phases												
Detector Phase	5	2	2 3	1	6	6 7	3	8		7	4	4 5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	10.0		4.0	10.0	
Minimum Split (s)	11.0	34.5		11.0	37.5		11.0	41.0		11.0	41.0	
Total Split (s)	16.0	38.0		25.0	47.0		43.0	58.0		29.0	44.0	
Total Split (%)	10.7%	25.3%		16.7%	31.3%		28.7%	38.7%		19.3%	29.3%	
Maximum Green (s)	9.0	31.5		18.0	40.5		36.0	51.0		22.0	37.0	
Yellow Time (s)	5.0	4.5		5.0	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	6.5		7.0	6.5		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.3		3.0	4.3		3.0	3.9		3.0	3.9	
Minimum Gap (s)	0.2	2.2		0.2	2.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	15.0		0.0	15.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0		0.0	10.0		0.0	10.0	
Recall Mode	None	Min		None	Min		None	Min		None	C-Min	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		23.0			26.0			29.0			29.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	9.0	31.5	74.1	18.0	40.5	67.8	42.1	52.7		20.3	30.9	39.9
Actuated g/C Ratio	0.06	0.21	0.49	0.12	0.27	0.45	0.28	0.35		0.14	0.21	0.27
v/c Ratio	0.92	1.02	1.14	1.17	0.94	0.70	0.31	0.72		0.77	0.90	0.35
Control Delay	114.3	95.3	102.3	154.3	71.1	38.9	44.6	45.1		60.2	54.2	20.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1		0.0	0.0	0.0
Total Delay	114.3	95.3	102.3	154.3	71.1	38.9	44.6	45.2		60.2	54.2	20.7
LOS	F	F	F	F	E	D	D	D		E	D	C
Approach Delay		100.7			83.8			45.1			51.8	
Approach LOS		F			F			D			D	
Queue Length 50th (ft)	96	~411	~667	~286	454	378	119	386		176	333	103
Queue Length 95th (ft)	#174	#543	#1345	#402	#583	515	173	468		204	284	69
Internal Link Dist (ft)		2365			3784			2121			629	
Turn Bay Length (ft)	440		250	325		375	350			250		150
Base Capacity (vph)	205	743	782	411	955	733	964	1218		503	872	485
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	14		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.92	1.02	1.14	1.17	0.94	0.68	0.31	0.73		0.71	0.75	0.30

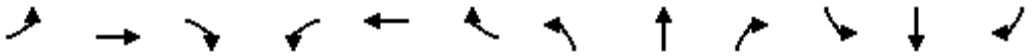
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 88 (59%), Referenced to phase 4:SBT, Start of Yellow			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.17			
Intersection Signal Delay: 75.3		Intersection LOS: E	
Intersection Capacity Utilization 99.7%		ICU Level of Service F	

Analysis Period (min) 15

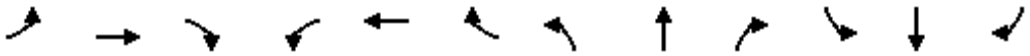
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Bluebonnet & Perkins



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	142	23	47	47	12	154	61	1157	71	371	1003	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		125	160		160	175		0
Storage Lanes	1		0	0		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.899				0.850			0.850		0.987	
Flt Protected	0.950				0.962		0.950			0.950		
Satd. Flow (prot)	1770	1675	0	0	1792	1583	1770	3539	1583	3433	3493	0
Flt Permitted	0.717				0.643		0.950			0.950		
Satd. Flow (perm)	1336	1675	0	0	1198	1583	1770	3539	1583	3433	3493	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		49									11	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		511			1048			709			2556	
Travel Time (s)		11.6			23.8			10.7			38.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	149	24	49	49	13	162	64	1218	75	391	1056	102
Shared Lane Traffic (%)												
Lane Group Flow (vph)	149	73	0	0	62	162	64	1218	75	391	1158	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290	45	45	290	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284	-6	-6	284	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6	-6	-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	
Protected Phases		8		7	4	4 5	1	6	6 7	5	2	
Permitted Phases	8			4								
Detector Phase	8	8		7	4	4 5	1	6	6 7	5	2	

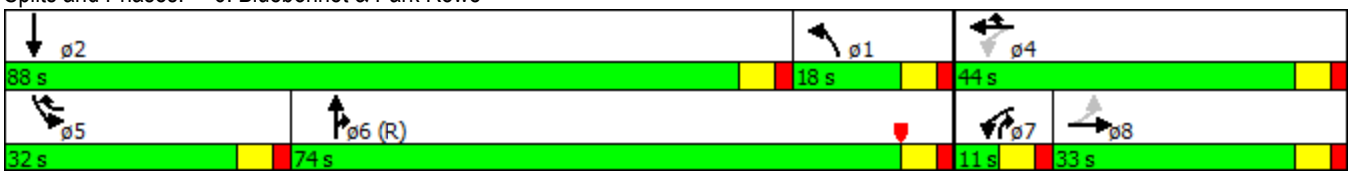


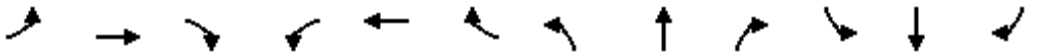
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		3.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	11.0	11.0		9.0	11.0		9.0	21.0		9.0	21.0	
Total Split (s)	33.0	33.0		11.0	44.0		18.0	74.0		32.0	88.0	
Total Split (%)	22.0%	22.0%		7.3%	29.3%		12.0%	49.3%		21.3%	58.7%	
Maximum Green (s)	27.0	27.0		5.0	38.0		12.0	68.0		26.0	82.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag		Lead			Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		1.5	2.0		1.5	4.0		1.5	4.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	21.2	21.2			31.5	58.6	18.7	79.4	89.8	21.1	84.0	
Actuated g/C Ratio	0.14	0.14			0.21	0.39	0.12	0.53	0.60	0.14	0.56	
v/c Ratio	0.79	0.26			0.23	0.26	0.29	0.65	0.08	0.81	0.59	
Control Delay	89.2	23.9			48.5	30.4	56.6	27.2	13.7	76.0	25.9	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.5	0.0	0.0	0.0	
Total Delay	89.2	23.9			48.5	30.4	56.6	27.6	13.7	76.0	25.9	
LOS	F	C			D	C	E	C	B	E	C	
Approach Delay		67.8			35.4			28.2			38.5	
Approach LOS		E			D			C			D	
Queue Length 50th (ft)	143	21			50	107	48	443	26	194	408	
Queue Length 95th (ft)	211	66			87	140	m71	m474	m50	243	555	
Internal Link Dist (ft)		431			968			629			2476	
Turn Bay Length (ft)	100					125	160		160	175		
Base Capacity (vph)	245	347			324	664	237	1885	946	596	2068	
Starvation Cap Reductn	0	0			0	0	0	261	0	0	0	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.61	0.21			0.19	0.24	0.27	0.75	0.08	0.66	0.56	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 138 (92%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 36.1 Intersection LOS: D
Intersection Capacity Utilization 72.1% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Bluebonnet & Park Rowe





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	203	1	77	0	0	2	63	1390	0	1	1393	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	475		475	50		0	425		0	130		130
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.850							0.850
Flt Protected	0.950	0.953					0.950			0.950		
Satd. Flow (prot)	1681	1686	1583	1863	1583	0	1770	3539	0	1770	3539	1583
Flt Permitted	0.950	0.953					0.950			0.950		
Satd. Flow (perm)	1681	1686	1583	1863	1583	0	1770	3539	0	1770	3539	1583
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)					168							
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1004			740			2556			469	
Travel Time (s)		22.8			16.8			38.7			7.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	214	1	81	0	0	2	66	1463	0	1	1466	154
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	107	108	81	0	2	0	66	1463	0	1	1466	154
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	45	45	45		45	290		45	290	45
Trailing Detector (ft)	-6	-6	-6	-6	-6		-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6		-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51		51	51		51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA		Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4		1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4		1	6		5	2	2 8

Lanes, Volumes, Timings
9: Bluebonnet & Anselmo

2017 Build Weekend

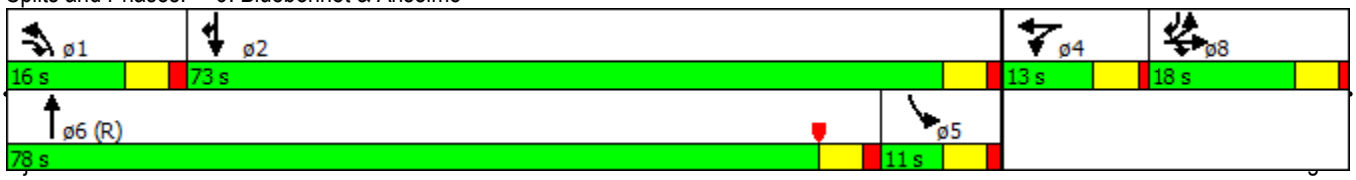
5/18/2016

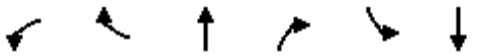
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.5	25.5		8.5	25.5	
Total Split (s)	18.0	18.0		13.0	13.0		16.0	78.0		11.0	73.0	
Total Split (%)	15.0%	15.0%		10.8%	10.8%		13.3%	65.0%		9.2%	60.8%	
Maximum Green (s)	13.0	13.0		8.0	8.0		10.5	72.5		5.5	67.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	6.0		3.0	6.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	14.2	14.2	29.0		7.7		9.3	90.6		5.6	77.9	96.0
Actuated g/C Ratio	0.12	0.12	0.24		0.06		0.08	0.76		0.05	0.65	0.80
v/c Ratio	0.54	0.54	0.21		0.01		0.48	0.55		0.01	0.64	0.12
Control Delay	59.9	60.1	36.8		0.0		64.4	8.7		60.0	8.8	1.7
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	59.9	60.1	36.8		0.0		64.4	8.7		60.0	8.8	1.7
LOS	E	E	D		A		E	A		E	A	A
Approach Delay		53.7			0.0			11.1			8.1	
Approach LOS		D			A			B			A	
Queue Length 50th (ft)	82	83	49		0		50	186		1	122	14
Queue Length 95th (ft)	148	150	95		0		97	457		m2	216	25
Internal Link Dist (ft)		924			660			2476			389	
Turn Bay Length (ft)	475		475				425			130		130
Base Capacity (vph)	207	207	395		262		157	2670		82	2298	1274
Starvation Cap Reductn	0	0	0		0		0	0		0	0	0
Spillback Cap Reductn	0	0	0		0		0	0		0	0	0
Storage Cap Reductn	0	0	0		0		0	0		0	0	0
Reduced v/c Ratio	0.52	0.52	0.21		0.01		0.42	0.55		0.01	0.64	0.12

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 91 (76%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 13.3 Intersection LOS: B
Intersection Capacity Utilization 67.6% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Bluebonnet & Anselmo





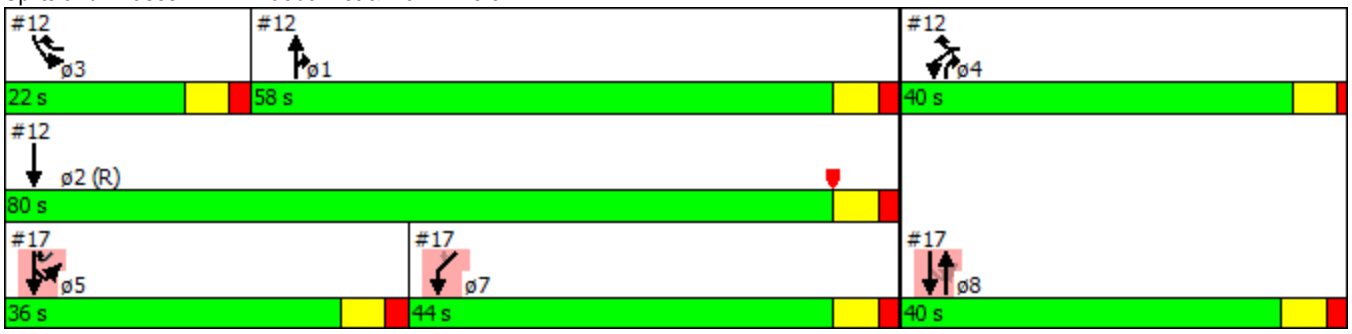
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Lane Configurations									
Volume (vph)	335	163	1016	580	119	1205			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	0	100		150	350				
Storage Lanes	2	1		1	1				
Taper Length (ft)	25				25				
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.91			
Frt		0.850		0.850					
Flt Protected	0.950				0.950				
Satd. Flow (prot)	3433	1583	3539	1583	1770	5085			
Flt Permitted	0.950				0.950				
Satd. Flow (perm)	3433	1583	3539	1583	1770	5085			
Right Turn on Red		No		No					
Satd. Flow (RTOR)									
Link Speed (mph)	30		45			45			
Link Distance (ft)	352		390			974			
Travel Time (s)	8.0		5.9			14.8			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95			
Adj. Flow (vph)	353	172	1069	611	125	1268			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	353	172	1069	611	125	1268			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Right	Left	Left			
Median Width(ft)	35		20			20			
Link Offset(ft)	0		0			0			
Crosswalk Width(ft)	16		16			16			
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Turning Speed (mph)	15	9		9	15				
Number of Detectors	1	1	2	1	1	2			
Detector Template									
Leading Detector (ft)	45	45	290	45	45	290			
Trailing Detector (ft)	-6	-6	284	-6	-6	284			
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			
Detector 1 Size(ft)	51	51	51	51	51	51			
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call			
Detector 1 Channel									
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)			284			284			
Detector 2 Size(ft)			6			6			
Detector 2 Type			Extend			Extend			
Detector 2 Channel									
Detector 2 Extend (s)			0.0			0.0			
Turn Type	Prot	pt+ov	NA	pt+ov	Prot	NA			
Protected Phases	4	4 3	1	1 4	3	2	5	7	8
Permitted Phases									
Detector Phase	4	4 3	1	1 4	3	2			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Switch Phase									
Minimum Initial (s)	4.0		24.0		4.0	34.0	4.0	4.0	34.0
Minimum Split (s)	10.0		30.0		10.0	40.0	10.0	22.0	40.0
Total Split (s)	40.0		58.0		22.0	80.0	36.0	44.0	40.0
Total Split (%)	33.3%		48.3%		18.3%	66.7%	30%	37%	33%
Maximum Green (s)	35.0		52.0		16.0	74.0	30.0	38.0	34.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0			
Total Lost Time (s)	5.0		6.0		6.0	6.0			
Lead/Lag			Lag		Lead		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	
Vehicle Extension (s)	2.5		4.3		2.0	4.3	2.5	3.0	4.3
Minimum Gap (s)	0.2		2.2		0.2	2.2	0.2	3.0	2.2
Time Before Reduce (s)	0.0		20.0		0.0	30.0	0.0	0.0	30.0
Time To Reduce (s)	0.0		15.0		0.0	15.0	0.0	0.0	15.0
Recall Mode	None		Min		None	C-Min	None	None	Min
Walk Time (s)								5.0	
Flash Dont Walk (s)								11.0	
Pedestrian Calls (#/hr)								0	
Act Effct Green (s)	35.2	53.7	55.3	95.5	12.5	73.8			
Actuated g/C Ratio	0.29	0.45	0.46	0.80	0.10	0.62			
v/c Ratio	0.35	0.24	0.66	0.49	0.68	0.41			
Control Delay	16.1	6.7	21.9	5.7	85.2	2.9			
Queue Delay	0.0	0.0	0.0	0.1	0.3	0.0			
Total Delay	16.1	6.7	21.9	5.8	85.5	2.9			
LOS	B	A	C	A	F	A			
Approach Delay	13.0		16.0			10.3			
Approach LOS	B		B			B			
Queue Length 50th (ft)	52	34	312	83	104	43			
Queue Length 95th (ft)	84	55	301	311	168	34			
Internal Link Dist (ft)	272		310			894			
Turn Bay Length (ft)		100		150	350				
Base Capacity (vph)	1006	753	1635	1245	236	3135			
Starvation Cap Reductn	0	0	0	0	0	0			
Spillback Cap Reductn	0	0	0	51	7	0			
Storage Cap Reductn	0	0	0	0	0	0			
Reduced v/c Ratio	0.35	0.23	0.65	0.51	0.55	0.40			

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 86 (72%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 13.4		Intersection LOS: B	
Intersection Capacity Utilization 58.4%		ICU Level of Service B	

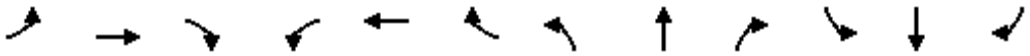
Analysis Period (min) 15

Splits and Phases: 12: Bluebonnet & Mall Drive 3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	103	47	56	97	44	235	58	1019	101	344	1170	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	140		140	200		200	200		160
Storage Lanes	2		0	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		0.918				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3249	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3249	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		59										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1050			403			974			1065	
Travel Time (s)		23.9			9.2			14.8			16.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	108	49	59	102	46	247	61	1073	106	362	1232	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	108	108	0	102	46	247	61	1073	106	362	1232	97
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			36			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pt+ov
Protected Phases	3	2		9	8	8 6	1	10	10 9	6	5	5 3
Permitted Phases												
Detector Phase	3	2		9	8	8 6	1	10	10 9	6	5	5 3

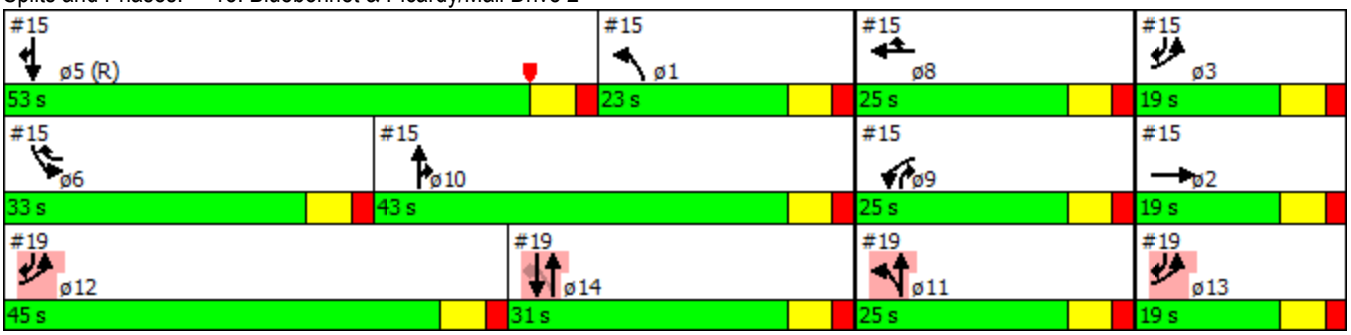
Lane Group	ø11	ø12	ø13	ø14
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	11	12	13	14
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	21.0		3.0	21.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		11.0	27.0		11.0	27.0	
Total Split (s)	19.0	19.0		25.0	25.0		23.0	43.0		33.0	53.0	
Total Split (%)	15.8%	15.8%		20.8%	20.8%		19.2%	35.8%		27.5%	44.2%	
Maximum Green (s)	13.0	13.0		19.0	19.0		17.0	37.0		27.0	47.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.0		1.0	1.0		3.0	4.3		1.0	4.3	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	28.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	15.0	
Recall Mode	None	None		None	None		None	None		None	C-Min	
Act Effct Green (s)	17.7	17.7		12.9	12.9	44.8	14.2	33.5	52.4	31.9	53.5	77.3
Actuated g/C Ratio	0.15	0.15		0.11	0.11	0.37	0.12	0.28	0.44	0.27	0.45	0.64
v/c Ratio	0.21	0.20		0.28	0.12	0.42	0.29	0.76	0.15	0.40	0.54	0.10
Control Delay	45.7	22.8		27.0	25.6	31.3	29.6	24.0	7.6	49.3	9.2	6.2
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.7	22.8		27.0	25.6	31.3	29.6	24.0	7.6	49.3	9.2	6.2
LOS	D	C		C	C	C	C	C	A	D	A	A
Approach Delay		34.2			29.5			22.9			17.6	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)	37	16		37	16	185	46	292	29	94	34	6
Queue Length 95th (ft)	69	46		54	m26	251	m46	90	m12	137	98	26
Internal Link Dist (ft)		970			323			894			985	
Turn Bay Length (ft)	150			140		140	200		200	200		160
Base Capacity (vph)	515	537		553	571	714	261	1598	754	996	2395	1046
Starvation Cap Reductn	0	0		0	0	19	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.20		0.18	0.08	0.36	0.23	0.67	0.14	0.36	0.51	0.09

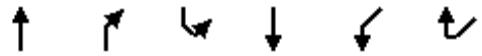
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 69 (58%), Referenced to phase 5:SBT, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 21.8		Intersection LOS: C	
Intersection Capacity Utilization 54.1%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 15: Bluebonnet & Picardy/Mall Drive 2

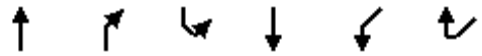


Lane Group	ø11	ø12	ø13	ø14
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	3.0
Minimum Split (s)	10.0	22.0	10.0	9.0
Total Split (s)	25.0	45.0	19.0	31.0
Total Split (%)	21%	38%	16%	26%
Maximum Green (s)	19.0	39.0	13.0	25.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	1.0
Minimum Gap (s)	3.0	3.0	3.0	0.2
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



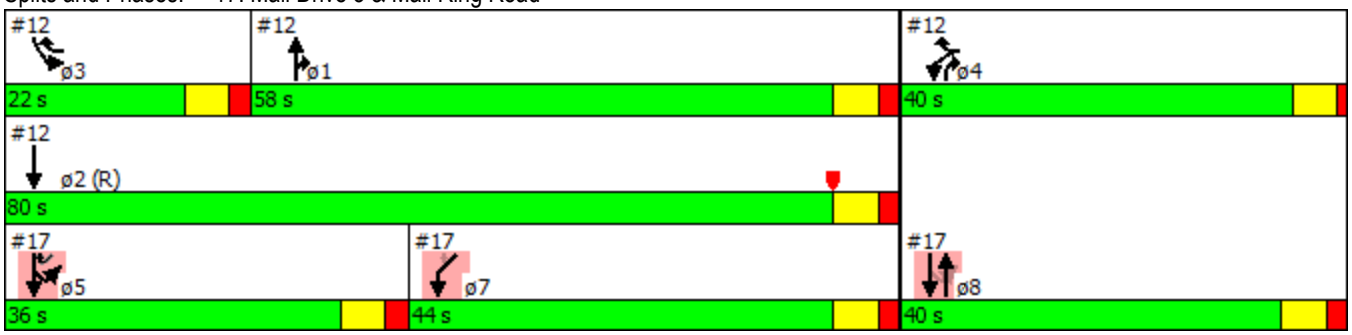
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Lane Configurations										
Volume (vph)	285	158	357	341	226	213				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00				
Frt	0.946					0.850				
Flt Protected			0.950		0.950					
Satd. Flow (prot)	3348	0	1770	1863	1770	1583				
Flt Permitted			0.364		0.950					
Satd. Flow (perm)	3348	0	678	1863	1770	1583				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)	88					232				
Link Speed (mph)	30			30	30					
Link Distance (ft)	797			352	1050					
Travel Time (s)	18.1			8.0	23.9					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Adj. Flow (vph)	310	172	388	371	246	232				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	482	0	388	371	246	232				
Enter Blocked Intersection	No	No	No	No	No	No				
Lane Alignment	Left	Right	Left	Left	Left	Right				
Median Width(ft)	0			12	12					
Link Offset(ft)	0			0	0					
Crosswalk Width(ft)	16			16	16					
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)		9	15		15	9				
Number of Detectors	2		1	2	1	1				
Detector Template	Thru		Left	Thru	Left	Right				
Leading Detector (ft)	100		20	100	20	20				
Trailing Detector (ft)	0		0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0				
Detector 1 Size(ft)	6		20	6	20	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel										
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0				
Detector 2 Position(ft)	94			94						
Detector 2 Size(ft)	6			6						
Detector 2 Type	Cl+Ex			Cl+Ex						
Detector 2 Channel										
Detector 2 Extend (s)	0.0			0.0						
Turn Type	NA		D.P+P	NA	Prot	pm+ov				
Protected Phases	8		5	5 8	7	5	1	2	3	4
Permitted Phases			8			7				
Detector Phase	8		5	5 8	7	5				
Switch Phase										
Minimum Initial (s)	34.0		4.0		4.0	4.0	24.0	34.0	4.0	4.0
Minimum Split (s)	40.0		10.0		22.0	10.0	30.0	40.0	10.0	10.0

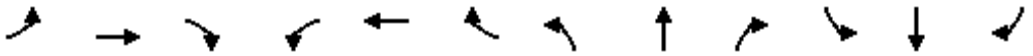


Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Total Split (s)	40.0		36.0		44.0	36.0	58.0	80.0	22.0	40.0
Total Split (%)	33.3%		30.0%		36.7%	30.0%	48%	67%	18%	33%
Maximum Green (s)	34.0		30.0		38.0	30.0	52.0	74.0	16.0	35.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0		2.0	2.0	2.0	2.0	2.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0				
Total Lost Time (s)	6.0		6.0		6.0	6.0				
Lead/Lag			Lead		Lag	Lead	Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	Yes				
Vehicle Extension (s)	4.3		2.5		3.0	2.5	4.3	4.3	2.0	2.5
Minimum Gap (s)	2.2		0.2		3.0	0.2	2.2	2.2	0.2	0.2
Time Before Reduce (s)	30.0		0.0		0.0	0.0	20.0	30.0	0.0	0.0
Time To Reduce (s)	15.0		0.0		0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	Min		None		None	None	Min	C-Min	None	None
Walk Time (s)					5.0					
Flash Dont Walk (s)					11.0					
Pedestrian Calls (#/hr)					0					
Act Effct Green (s)	34.2		53.8	59.8	48.2	73.8				
Actuated g/C Ratio	0.28		0.45	0.50	0.40	0.62				
v/c Ratio	0.47		0.80	0.40	0.35	0.22				
Control Delay	30.4		52.7	27.1	31.6	8.0				
Queue Delay	0.0		0.3	0.9	0.0	0.0				
Total Delay	30.4		53.0	28.0	31.6	8.0				
LOS	C		D	C	C	A				
Approach Delay	30.4			40.8	20.2					
Approach LOS	C			D	C					
Queue Length 50th (ft)	132		208	195	84	36				
Queue Length 95th (ft)	183		338	334	138	79				
Internal Link Dist (ft)	717			272	970					
Turn Bay Length (ft)										
Base Capacity (vph)	1015		635	1089	713	1061				
Starvation Cap Reductn	0		39	443	0	0				
Spillback Cap Reductn	0		0	0	0	0				
Storage Cap Reductn	0		0	0	0	0				
Reduced v/c Ratio	0.47		0.65	0.57	0.35	0.22				

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 86 (72%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 32.1		Intersection LOS: C	
Intersection Capacity Utilization 75.6%		ICU Level of Service D	
Analysis Period (min) 15			

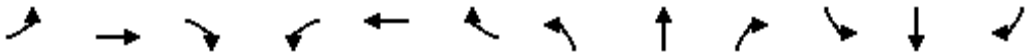
Splits and Phases: 17: Mall Drive 3 & Mall Ring Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	143	1140	74	295	1481	175	0	0	487	148	18	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		200	300		100	0		0	65		0
Storage Lanes	1		1	2		1	0		2	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.869	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1619	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1619	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82			33			191		131	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1065			834			318			371	
Travel Time (s)		16.1			12.6			7.2			8.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	151	1200	78	311	1559	184	0	0	513	156	19	131
Shared Lane Traffic (%)												
Lane Group Flow (vph)	151	1200	78	311	1559	184	0	0	513	156	150	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1			1	1	1	
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45			45	45	45	
Trailing Detector (ft)	-6	284	-6	-6	284	-6			-6	-6	-6	
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			-6	-6	-6	
Detector 1 Size(ft)	51	51	51	51	51	51			51	51	51	
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA	Perm	Prot	NA	custom			Over	Perm	NA	
Protected Phases	1	7		5	4	2			5		2	
Permitted Phases			7			4				2		
Detector Phase	1	7	7	5	4	2			5	2	2	

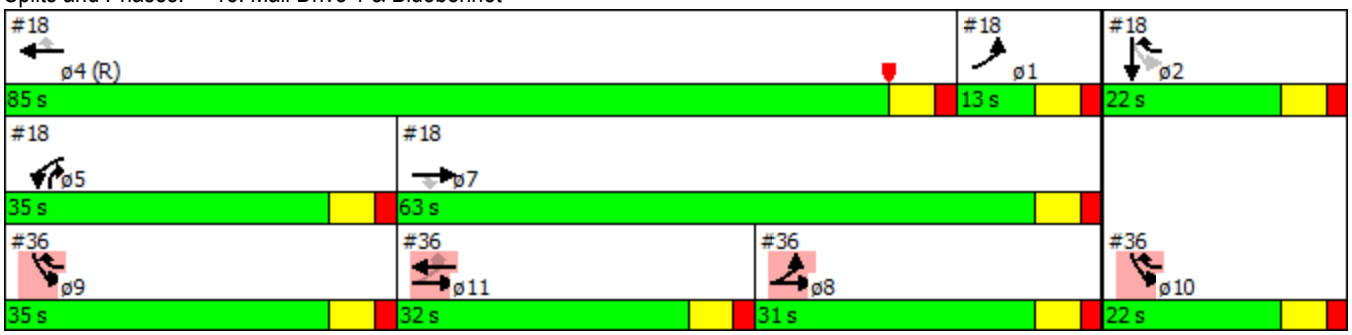
Lane Group	ø8	ø9	ø10	ø11
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	8	9	10	11
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	14.0	4.0	14.0	4.0			4.0	4.0	4.0	
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	10.0			10.0	10.0	10.0	
Total Split (s)	13.0	63.0	63.0	35.0	85.0	22.0			35.0	22.0	22.0	
Total Split (%)	10.8%	52.5%	52.5%	29.2%	70.8%	18.3%			29.2%	18.3%	18.3%	
Maximum Green (s)	7.0	57.0	57.0	29.0	79.0	16.0			29.0	16.0	16.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0			6.0	6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	4.3	4.3	2.5	4.3	2.0			2.5	2.0	2.0	
Minimum Gap (s)	0.2	2.2	2.2	0.2	2.2	0.2			0.2	0.2	0.2	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	34.0	0.0			0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	15.0	0.0			0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Min	None			None	None	None	
Act Effct Green (s)	40.2	66.0	66.0	20.8	46.7	67.8			20.8	15.1	15.1	
Actuated g/C Ratio	0.34	0.55	0.55	0.17	0.39	0.56			0.17	0.13	0.13	
v/c Ratio	0.26	0.43	0.09	0.52	0.79	0.20			0.80	0.70	0.47	
Control Delay	16.4	9.5	1.3	40.9	28.9	7.9			46.1	66.3	15.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			0.1	0.0	0.0	
Total Delay	16.4	9.5	1.3	40.9	28.9	7.9			46.2	66.3	15.6	
LOS	B	A	A	D	C	A			D	E	B	
Approach Delay		9.8			28.8						41.4	
Approach LOS		A			C						D	
Queue Length 50th (ft)	31	87	0	96	376	32			150	117	13	
Queue Length 95th (ft)	m66	141	m3	m122	463	m48			191	182	72	
Internal Link Dist (ft)		985			754			238			291	
Turn Bay Length (ft)	140		200	300		100				65		
Base Capacity (vph)	592	2834	918	829	3347	888			818	254	345	
Starvation Cap Reductn	0	0	0	0	0	0			22	0	0	
Spillback Cap Reductn	0	0	0	0	0	0			0	0	0	
Storage Cap Reductn	0	0	0	0	0	0			0	0	0	
Reduced v/c Ratio	0.26	0.42	0.08	0.38	0.47	0.21			0.64	0.61	0.43	

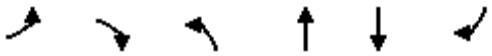
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 91 (76%), Referenced to phase 4:WBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 25.5		Intersection LOS: C	
Intersection Capacity Utilization 62.3%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 18: Mall Drive 1 & Bluebonnet



Lane Group	ø8	ø9	ø10	ø11
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	14.0
Minimum Split (s)	22.0	10.0	22.0	20.0
Total Split (s)	31.0	35.0	22.0	32.0
Total Split (%)	26%	29%	18%	27%
Maximum Green (s)	25.0	29.0	16.0	26.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	4.3
Minimum Gap (s)	3.0	3.0	3.0	2.2
Time Before Reduce (s)	0.0	0.0	0.0	34.0
Time To Reduce (s)	0.0	0.0	0.0	15.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Lane Configurations												
Volume (vph)	298	193	261	254	246	115						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Frt		0.850				0.850						
Flt Protected	0.950		0.950									
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583						
Flt Permitted	0.950		0.456									
Satd. Flow (perm)	1770	1583	849	1863	1863	1583						
Right Turn on Red		Yes				Yes						
Satd. Flow (RTOR)		210				125						
Link Speed (mph)	30			30	30							
Link Distance (ft)	403			1050	819							
Travel Time (s)	9.2			23.9	18.6							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	324	210	284	276	267	125						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	324	210	284	276	267	125						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Right	Left	Left	Left	Right						
Median Width(ft)	36			12	0							
Link Offset(ft)	0			0	0							
Crosswalk Width(ft)	16			16	16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15	9	15			9						
Number of Detectors	1	1	1	2	2	1						
Detector Template	Left	Right	Left	Thru	Thru	Right						
Leading Detector (ft)	20	20	20	100	100	20						
Trailing Detector (ft)	0	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0	0						
Detector 1 Size(ft)	20	20	20	6	6	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)				94	94							
Detector 2 Size(ft)				6	6							
Detector 2 Type				Cl+Ex	Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)				0.0	0.0							
Turn Type	Prot	Free	D.P+P	NA	NA	pm+ov						
Protected Phases	12 13		11	11 14	14	12 13	1	2	3	5	6	8
Permitted Phases		Free	14			14						
Detector Phase	12 13		11	11 14	14	12 13						
Switch Phase												
Minimum Initial (s)			4.0		3.0		3.0	3.0	3.0	21.0	3.0	3.0
Minimum Split (s)			10.0		9.0		11.0	9.0	9.0	27.0	11.0	9.0

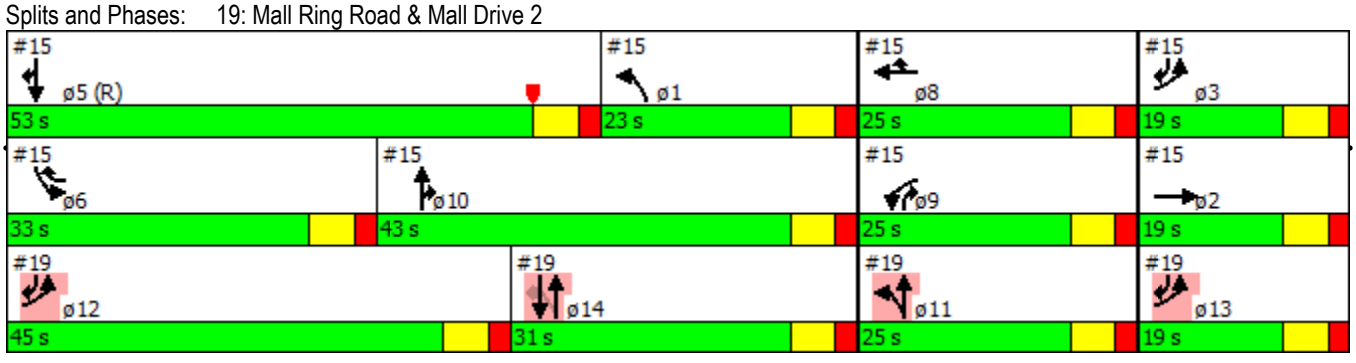
Lane Group	ø9	ø10	ø12	ø13
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	9	10	12	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	21.0	4.0	4.0
Minimum Split (s)	9.0	27.0	22.0	10.0

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Total Split (s)			25.0		31.0		23.0	19.0	19.0	53.0	33.0	25.0
Total Split (%)			20.8%		25.8%		19%	16%	16%	44%	28%	21%
Maximum Green (s)			19.0		25.0		17.0	13.0	13.0	47.0	27.0	19.0
Yellow Time (s)			4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)			2.0		2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0		0.0							
Total Lost Time (s)			6.0		6.0							
Lead/Lag					Lag		Lag			Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0		1.0		3.0	1.0	1.5	4.3	1.0	1.0
Minimum Gap (s)			3.0		0.2		0.2	0.2	0.2	2.2	0.2	0.2
Time Before Reduce (s)			0.0		0.0		0.0	0.0	0.0	28.0	0.0	0.0
Time To Reduce (s)			0.0		0.0		0.0	0.0	0.0	15.0	0.0	0.0
Recall Mode			None		None		None	None	None	C-Min	None	None
Act Effct Green (s)	53.7	120.0	48.3	54.3	35.4	95.1						
Actuated g/C Ratio	0.45	1.00	0.40	0.45	0.30	0.79						
v/c Ratio	0.41	0.13	0.65	0.33	0.49	0.10						
Control Delay	36.1	0.2	57.5	40.6	22.9	0.1						
Queue Delay	0.1	0.0	0.0	0.0	0.0	0.0						
Total Delay	36.2	0.2	57.5	40.6	22.9	0.1						
LOS	D	A	E	D	C	A						
Approach Delay	22.0			49.1	15.6							
Approach LOS	C			D	B							
Queue Length 50th (ft)	135	0	232	226	111	0						
Queue Length 95th (ft)	154	0	278	305	292	0						
Internal Link Dist (ft)	323			970	739							
Turn Bay Length (ft)												
Base Capacity (vph)	952	1583	535	927	552	1256						
Starvation Cap Reductn	124	0	0	0	0	0						
Spillback Cap Reductn	0	0	0	0	0	0						
Storage Cap Reductn	0	0	0	0	0	0						
Reduced v/c Ratio	0.39	0.13	0.53	0.30	0.48	0.10						

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 69 (58%), Referenced to phase 5:SBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 30.6 Intersection LOS: C
Intersection Capacity Utilization 58.9% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 19: Mall Ring Road & Mall Drive 2



Lane Group	ø9	ø10	ø12	ø13
Total Split (s)	25.0	43.0	45.0	19.0
Total Split (%)	21%	36%	38%	16%
Maximum Green (s)	19.0	37.0	39.0	13.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?			Yes	
Vehicle Extension (s)	1.0	4.3	3.0	3.0
Minimum Gap (s)	0.2	0.2	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	98	33	596	0	0	0	0	1604	174	240	1355	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		375	0		0	400		0	300		0
Storage Lanes	1		1	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.88	1.00	1.00	1.00	1.00	0.86	1.00	0.97	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950	0.976								0.950		
Satd. Flow (prot)	1681	1727	2787	0	0	0	0	6408	1583	3433	3539	0
Flt Permitted	0.950	0.976								0.950		
Satd. Flow (perm)	1681	1727	2787	0	0	0	0	6408	1583	3433	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			64						183			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1072			1024			834			410	
Travel Time (s)		24.4			23.3			12.6			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	103	35	627	0	0	0	0	1688	183	253	1426	0
Shared Lane Traffic (%)	34%											
Lane Group Flow (vph)	68	70	627	0	0	0	0	1688	183	253	1426	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			37	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					2	1	1	2	
Detector Template												
Leading Detector (ft)	45	45	45					290	45	45	290	
Trailing Detector (ft)	-6	-6	-6					284	-6	-6	284	
Detector 1 Position(ft)	-6	-6	-6					-6	-6	-6	-6	
Detector 1 Size(ft)	51	51	51					51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	custom					NA	Perm	Prot	NA	
Protected Phases	4	4	4 14					2		1	12	
Permitted Phases									2			
Detector Phase	4	4	4 14					2	2	1	12	

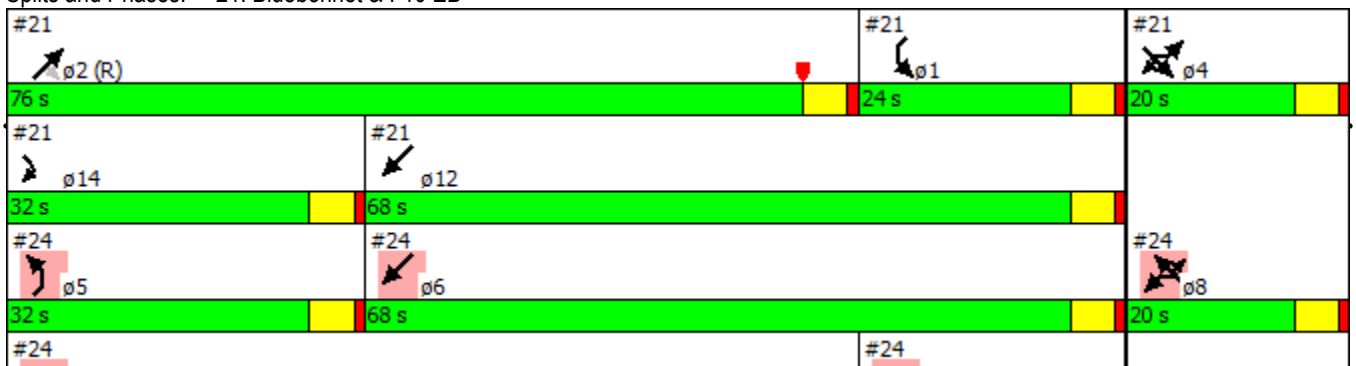
Lane Group	ø5	ø6	ø8	ø14	ø16	ø18
Lane Configurations						
Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	5	6	8	14	16	18
Permitted Phases						
Detector Phase						

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)	3.0	3.0						10.0	10.0	3.0	10.0	
Minimum Split (s)	20.0	20.0						20.0	20.0	8.0	20.0	
Total Split (s)	20.0	20.0						76.0	76.0	24.0	68.0	
Total Split (%)	16.7%	16.7%						63.3%	63.3%	20.0%	56.7%	
Maximum Green (s)	15.0	15.0						71.0	71.0	19.0	63.0	
Yellow Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0	2.0	2.0	6.0	
Recall Mode	None	None						C-Max	C-Max	None	Max	
Act Effct Green (s)	15.0	15.0	47.0					71.0	71.0	19.0	63.0	
Actuated g/C Ratio	0.12	0.12	0.39					0.59	0.59	0.16	0.52	
v/c Ratio	0.32	0.33	0.55					0.45	0.18	0.47	0.77	
Control Delay	52.6	52.5	27.5					12.6	2.3	32.9	10.6	
Queue Delay	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Total Delay	52.6	52.5	27.5					12.6	2.3	32.9	10.6	
LOS	D	D	C					B	A	C	B	
Approach Delay		32.0						11.6			14.0	
Approach LOS		C						B			B	
Queue Length 50th (ft)	51	52	190					206	4	105	63	
Queue Length 95th (ft)	100	103	254					221	25	136	98	
Internal Link Dist (ft)		992			944			754			330	
Turn Bay Length (ft)	375		375							300		
Base Capacity (vph)	210	215	1130					3791	1011	543	1857	
Starvation Cap Reductn	0	0	0					0	0	0	0	
Spillback Cap Reductn	0	0	0					0	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.32	0.33	0.55					0.45	0.18	0.47	0.77	

Intersection Summary

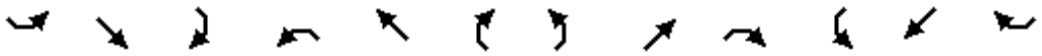
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 20 (17%), Referenced to phase 2:NET, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 16.1 — Intersection LOS: B
Intersection Capacity Utilization 66.6% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 21: Bluebonnet & I-10 EB



Lane Group	ø5	ø6	ø8	ø14	ø16	ø18
Switch Phase						
Minimum Initial (s)	3.0	10.0	3.0	3.0	10.0	4.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	32.0	68.0	20.0	32.0	76.0	24.0
Total Split (%)	27%	57%	17%	27%	63%	20%
Maximum Green (s)	27.0	63.0	15.0	27.0	71.0	19.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?						Yes
Vehicle Extension (s)	3.5	6.0	2.0	3.5	2.0	3.0
Recall Mode	Max	Max	None	Max	Max	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	0	0	150	3	279	543	1159	0	0	1445	169
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		525	300		0	575		575
Storage Lanes	0		0	1		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.95	1.00	1.00	0.91	0.91
Frt						0.850					0.984	
Flt Protected				0.950	0.954		0.950					
Satd. Flow (prot)	0	0	0	1681	1688	1583	3433	3539	0	0	5004	0
Flt Permitted				0.950	0.954		0.950					
Satd. Flow (perm)	0	0	0	1681	1688	1583	3433	3539	0	0	5004	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						70					25	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		894			1008			410			866	
Travel Time (s)		20.3			22.9			6.2			13.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	158	3	294	572	1220	0	0	1521	178
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	0	0	81	80	294	572	1220	0	0	1699	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			40			50	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			2	
Detector Template												
Leading Detector (ft)				45	45	45	45	290			290	
Trailing Detector (ft)				-6	-6	-6	-6	284			284	
Detector 1 Position(ft)				-6	-6	-6	-6	-6			-6	
Detector 1 Size(ft)				51	51	51	51	51			51	
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call			Call	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type				Split	NA	custom	Prot	NA			NA	
Protected Phases				8	8	8 18	5	16			6	
Permitted Phases												
Detector Phase				8	8	8 18	5	16			6	

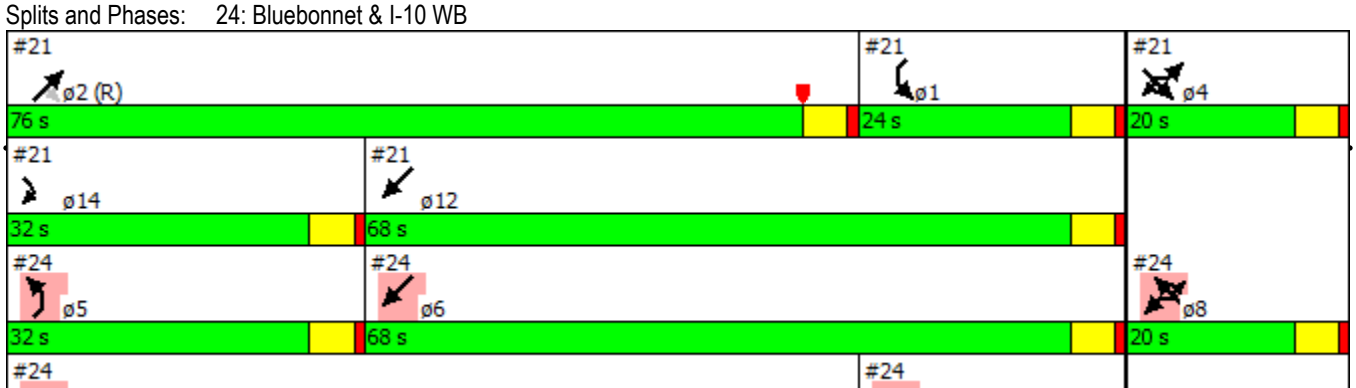
Lane Group	ø1	ø2	ø4	ø12	ø14	ø18
Lane Configurations						
Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	1	2	4	12	14	18
Permitted Phases						
Detector Phase						

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)				3.0	3.0		3.0	10.0			10.0	
Minimum Split (s)				20.0	20.0		8.0	20.0			20.0	
Total Split (s)				20.0	20.0		32.0	76.0			68.0	
Total Split (%)				16.7%	16.7%		26.7%	63.3%			56.7%	
Maximum Green (s)				15.0	15.0		27.0	71.0			63.0	
Yellow Time (s)				4.0	4.0		4.0	4.0			4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				5.0	5.0		5.0	5.0			5.0	
Lead/Lag							Lead	Lead			Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0		3.5	2.0			6.0	
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)				15.0	15.0	39.0	27.0	71.0			63.0	
Actuated g/C Ratio				0.12	0.12	0.32	0.22	0.59			0.52	
v/c Ratio				0.39	0.38	0.52	0.74	0.58			0.64	
Control Delay				54.3	54.1	28.6	34.7	5.4			15.0	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay				54.3	54.1	28.6	34.7	5.4			15.0	
LOS				D	D	C	C	A			B	
Approach Delay					37.6			14.7			15.0	
Approach LOS					D			B			B	
Queue Length 50th (ft)				62	61	140	93	78			457	
Queue Length 95th (ft)				115	114	229	142	68			176	
Internal Link Dist (ft)		814			928			330			786	
Turn Bay Length (ft)						525	300					
Base Capacity (vph)				210	211	561	772	2093			2638	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			23	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.39	0.38	0.52	0.74	0.58			0.65	

Intersection Summary

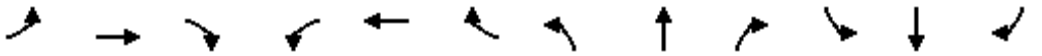
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 20 (17%), Referenced to phase 2:NET, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 17.5 Intersection LOS: B
Intersection Capacity Utilization 66.6% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 24: Bluebonnet & I-10 WB



Lane Group	ø1	ø2	ø4	ø12	ø14	ø18
Switch Phase						
Minimum Initial (s)	3.0	10.0	3.0	10.0	3.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	8.0	20.0
Total Split (s)	24.0	76.0	20.0	68.0	32.0	24.0
Total Split (%)	20%	63%	17%	57%	27%	20%
Maximum Green (s)	19.0	71.0	15.0	63.0	27.0	19.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lead		Lag	Lead	Lag
Lead-Lag Optimize?						Yes
Vehicle Extension (s)	2.0	2.0	2.0	6.0	3.5	3.0
Recall Mode	None	C-Max	None	Max	Max	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	1	28	126	4	7	31	1316	91	10	1462	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		200	300		175	175		175
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.855			0.950	0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3026	0	3433	1681	1504	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.107			0.141		
Satd. Flow (perm)	1770	3026	0	3433	1681	1504	199	3539	1583	263	3539	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		107										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		475			1072			866			1049	
Travel Time (s)		10.8			24.4			13.1			15.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	39	1	29	133	4	7	33	1385	96	11	1539	8
Shared Lane Traffic (%)						26%						
Lane Group Flow (vph)	39	30	0	133	6	5	33	1385	96	11	1539	8
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		60			60			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4		3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases							2			6		
Detector Phase	7	4		3	8	8 1	5	2	2 3	1	6	6 7

Lanes, Volumes, Timings
27: Bluebonnet & Blue Cross

2017 Build Weekend

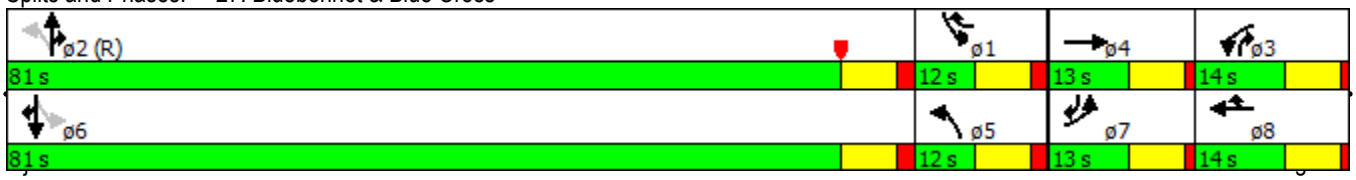
5/18/2016

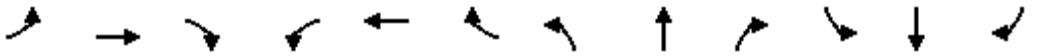
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	5.0		5.0	3.0		3.0	20.0		5.0	20.0	
Minimum Split (s)	8.9	10.9		10.9	8.9		9.6	26.6		11.6	26.6	
Total Split (s)	13.0	13.0		14.0	14.0		12.0	81.0		12.0	81.0	
Total Split (%)	10.8%	10.8%		11.7%	11.7%		10.0%	67.5%		10.0%	67.5%	
Maximum Green (s)	7.1	7.1		8.1	8.1		5.4	74.4		5.4	74.4	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	0.9	0.9		0.9	0.9		1.6	1.6		1.6	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.9	5.9		5.9	5.9		6.6	6.6		6.6	6.6	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		2.5	1.5		1.5	5.0		1.5	5.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	9.1	5.0		9.3	7.2	12.7	90.2	86.6	104.5	89.3	84.9	97.3
Actuated g/C Ratio	0.08	0.04		0.08	0.06	0.11	0.75	0.72	0.87	0.74	0.71	0.81
v/c Ratio	0.29	0.13		0.50	0.06	0.03	0.16	0.54	0.07	0.04	0.61	0.01
Control Delay	57.8	1.2		59.6	54.3	32.8	4.5	5.2	1.5	7.0	11.3	1.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.8	1.2		59.6	54.3	32.8	4.5	5.2	1.5	7.0	11.3	1.6
LOS	E	A		E	D	C	A	A	A	A	B	A
Approach Delay		33.2			58.5			5.0			11.2	
Approach LOS		C			E			A			B	
Queue Length 50th (ft)	26	0		51	5	3	4	89	2	3	433	1
Queue Length 95th (ft)	67	0		84	20	13	m6	154	m19	m5	526	m2
Internal Link Dist (ft)		395			992			786			969	
Turn Bay Length (ft)	75			200		200	300		175	175		175
Base Capacity (vph)	147	279		272	114	173	221	2566	1369	266	2504	1295
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.11		0.49	0.05	0.03	0.15	0.54	0.07	0.04	0.61	0.01

Intersection Summary

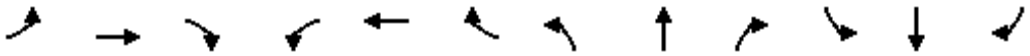
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 35 (29%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 10.9 Intersection LOS: B
Intersection Capacity Utilization 61.1% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 27: Bluebonnet & Blue Cross





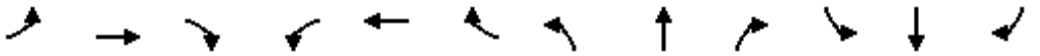
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	0	22	16	0	2	13	1343	4	0	1441	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		130	150		185
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.900			0.986				0.850			0.850
Flt Protected		0.987			0.957		0.950					
Satd. Flow (prot)	0	1655	0	0	1758	0	1770	3539	1583	1863	3539	1583
Flt Permitted		0.906			0.924		0.159					
Satd. Flow (perm)	0	1519	0	0	1697	0	296	3539	1583	1863	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			27				27			27
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1129			1330			1049			1811	
Travel Time (s)		25.7			30.2			15.9			27.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	8	0	23	17	0	2	14	1414	4	0	1517	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	31	0	0	19	0	14	1414	4	0	1517	4
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



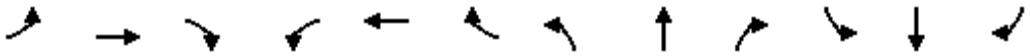
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	11.0	11.0		11.0	11.0		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.0	24.0		24.0	24.0		84.0	84.0	84.0	84.0	84.0	84.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		6.2			6.2		108.7	108.7	108.7		108.7	108.7
Actuated g/C Ratio		0.05			0.05		0.91	0.91	0.91		0.91	0.91
v/c Ratio		0.30			0.17		0.05	0.44	0.00		0.47	0.00
Control Delay		29.3			17.0		0.5	0.6	0.0		2.8	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0		0.0	0.0
Total Delay		29.3			17.0		0.5	0.6	0.0		2.8	0.0
LOS		C			B		A	A	A		A	A
Approach Delay		29.3			17.0			0.6			2.8	
Approach LOS		C			B			A			A	
Queue Length 50th (ft)		3			0		0	45	0		111	0
Queue Length 95th (ft)		35			19		m0	0	m0		234	m0
Internal Link Dist (ft)		1049			1250			969			1731	
Turn Bay Length (ft)							150		130			185
Base Capacity (vph)		325			361		268	3205	1436		3205	1436
Starvation Cap Reductn		0			0		0	0	0		0	0
Spillback Cap Reductn		0			0		0	0	0		0	0
Storage Cap Reductn		0			0		0	0	0		0	0
Reduced v/c Ratio		0.10			0.05		0.05	0.44	0.00		0.47	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 81 (68%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.47			
Intersection Signal Delay: 2.1		Intersection LOS: A	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 30: Bluebonnet & Gail



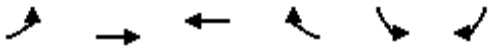
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	1	23	14	0	14	24	1301	30	19	1408	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.895			0.932				0.850			0.850
Flt Protected		0.990			0.976		0.950			0.950		
Satd. Flow (prot)	0	1650	0	0	1694	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.925			0.826		0.165			0.189		
Satd. Flow (perm)	0	1542	0	0	1434	0	307	3539	1583	352	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			27				31			29
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1794			2049			1811			2409	
Travel Time (s)		40.8			46.6			27.4			36.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	6	1	24	15	0	15	25	1369	32	20	1482	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	31	0	0	30	0	25	1369	32	20	1482	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	9.2	9.2		9.2	9.2		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	23.8	23.8		23.8	23.8		84.0	84.0	84.0	84.0	84.0	84.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.2	1.2		1.2	1.2		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.2			6.2		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		6.3			6.3		108.4	108.4	108.4	108.4	108.4	108.4
Actuated g/C Ratio		0.05			0.05		0.90	0.90	0.90	0.90	0.90	0.90
v/c Ratio		0.30			0.30		0.09	0.43	0.02	0.06	0.46	0.01
Control Delay		32.3			28.9		0.8	1.3	0.1	2.1	2.4	0.1
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		32.3			28.9		0.8	1.3	0.1	2.1	2.4	0.1
LOS		C			C		A	A	A	A	A	A
Approach Delay		32.3			28.9			1.2			2.4	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		5			2		0	2	1	2	111	0
Queue Length 95th (ft)		37			33		m0	1	m0	7	166	1
Internal Link Dist (ft)		1714			1969			1731			2329	
Turn Bay Length (ft)							150		150	150		150
Base Capacity (vph)		325			306		277	3198	1433	318	3198	1433
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.10			0.10		0.09	0.43	0.02	0.06	0.46	0.01

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 18 (15%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.46			
Intersection Signal Delay: 2.4		Intersection LOS: A	
Intersection Capacity Utilization 68.5%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 33: Bluebonnet & Oliphant



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Lane Configurations												
Volume (vph)	174	379	207	314	233	155						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.95						
Frt				0.850	0.940							
Flt Protected	0.950				0.971							
Satd. Flow (prot)	1770	1863	1863	1583	3298	0						
Flt Permitted	0.414				0.971							
Satd. Flow (perm)	771	1863	1863	1583	3298	0						
Right Turn on Red				Yes		Yes						
Satd. Flow (RTOR)				341	168							
Link Speed (mph)		30	30		30							
Link Distance (ft)		819	802		318							
Travel Time (s)		18.6	18.2		7.2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	189	412	225	341	253	168						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	189	412	225	341	421	0						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Right	Left	Right						
Median Width(ft)		12	0		36							
Link Offset(ft)		0	0		0							
Crosswalk Width(ft)		16	16		16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15			9	15	9						
Number of Detectors	1	2	2	1	1							
Detector Template	Left	Thru	Thru	Right	Left							
Leading Detector (ft)	20	100	100	20	20							
Trailing Detector (ft)	0	0	0	0	0							
Detector 1 Position(ft)	0	0	0	0	0							
Detector 1 Size(ft)	20	6	6	20	20							
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex							
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0							
Detector 2 Position(ft)		94	94									
Detector 2 Size(ft)		6	6									
Detector 2 Type		Cl+Ex	Cl+Ex									
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0									
Turn Type	D.P+P	NA	NA	pm+ov	Prot							
Protected Phases	8	8 11	11	9 10	9 10		1	2	4	5	7	9
Permitted Phases	11			11								
Detector Phase	8	8 11	11	9 10	9 10							
Switch Phase												
Minimum Initial (s)	4.0		14.0				4.0	4.0	14.0	4.0	14.0	4.0
Minimum Split (s)	22.0		20.0				10.0	10.0	20.0	10.0	20.0	10.0

Lane Group	ø10
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	10
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	22.0

Lanes, Volumes, Timings
36: Mall Ring Road & Mall Drive 1

2017 Build Weekend

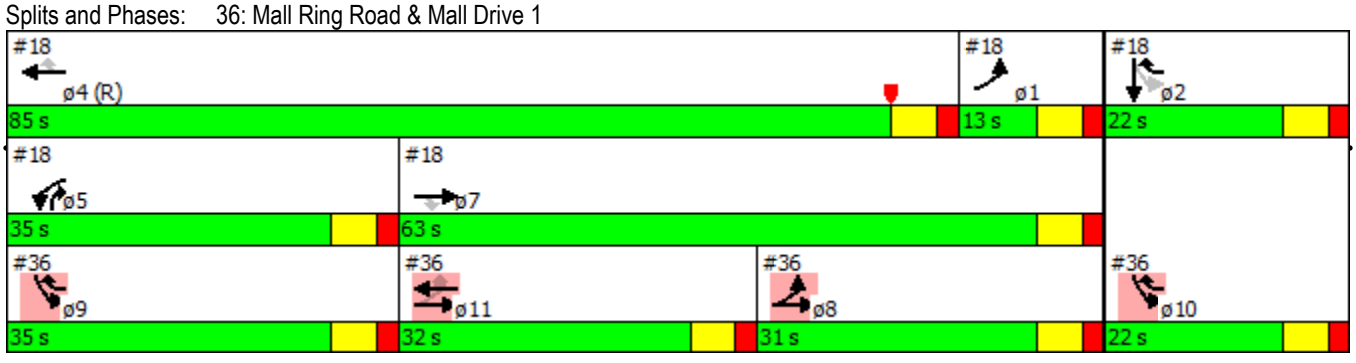
5/18/2016

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Total Split (s)	31.0		32.0				13.0	22.0	85.0	35.0	63.0	35.0
Total Split (%)	25.8%		26.7%				11%	18%	71%	29%	53%	29%
Maximum Green (s)	25.0		26.0				7.0	16.0	79.0	29.0	57.0	29.0
Yellow Time (s)	4.0		4.0				4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0				2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0									
Total Lost Time (s)	6.0		6.0									
Lead/Lag			Lag				Lag		Lead	Lead	Lag	Lead
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0		4.3				2.5	2.0	4.3	2.5	4.3	3.0
Minimum Gap (s)	3.0		2.2				0.2	0.2	2.2	0.2	2.2	3.0
Time Before Reduce (s)	0.0		34.0				0.0	0.0	34.0	0.0	0.0	0.0
Time To Reduce (s)	0.0		15.0				0.0	0.0	15.0	0.0	0.0	0.0
Recall Mode	None		None				None	None	C-Min	None	None	None
Act Effct Green (s)	74.1	80.1	23.6	57.5	27.9							
Actuated g/C Ratio	0.62	0.67	0.20	0.48	0.23							
v/c Ratio	0.21	0.33	0.61	0.36	0.47							
Control Delay	5.2	5.1	50.4	2.3	59.0							
Queue Delay	0.0	0.0	0.0	0.0	0.1							
Total Delay	5.2	5.1	50.4	2.3	59.1							
LOS	A	A	D	A	E							
Approach Delay		5.1	21.4		59.1							
Approach LOS		A	C		E							
Queue Length 50th (ft)	47	103	161	0	125							
Queue Length 95th (ft)	5	9	222	35	158							
Internal Link Dist (ft)		739	722		238							
Turn Bay Length (ft)												
Base Capacity (vph)	896	1232	426	923	1433							
Starvation Cap Reductn	0	0	0	0	290							
Spillback Cap Reductn	0	0	0	0	0							
Storage Cap Reductn	0	0	0	0	0							
Reduced v/c Ratio	0.21	0.33	0.53	0.37	0.37							

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 91 (76%), Referenced to phase 4:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 25.3 Intersection LOS: C
Intersection Capacity Utilization 47.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 36: Mall Ring Road & Mall Drive 1

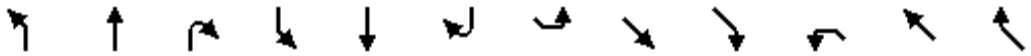


Lane Group	ø10
Total Split (s)	22.0
Total Split (%)	18%
Maximum Green (s)	16.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Minimum Gap (s)	3.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

M.25 2037 NO BUILD AM – ESSEN LANE

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	306	767	45	253	560	470	584	546	38	82	1063	278
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	800		0	300		0	150		0
Storage Lanes	1		0	1		1	2		0	1		0
Taper Length (ft)	150			25			200			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Frt		0.992				0.850		0.990			0.969	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3511	0	1770	3539	1583	3433	3504	0	1770	3429	0
Flt Permitted	0.146			0.120			0.950			0.950		
Satd. Flow (perm)	272	3511	0	224	3539	1583	3433	3504	0	1770	3429	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3				239		5			23	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1877			1475			2128			1788	
Travel Time (s)		28.4			22.3			32.2			27.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	322	807	47	266	589	495	615	575	40	86	1119	293
Shared Lane Traffic (%)												
Lane Group Flow (vph)	322	854	0	266	589	495	615	615	0	86	1412	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	0	1	1		1	1	
Detector Template												
Leading Detector (ft)	45	162		45	162	0	45	45		45	45	
Trailing Detector (ft)	0	156		0	156	0	0	0		0	0	
Detector 1 Position(ft)	0	-6		0	-6	0	0	0		0	0	
Detector 1 Size(ft)	45	51		45	51	50	45	45		45	45	
Detector 1 Type	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2		2						
Detector Phase	1	6		5	2	2	3	8		7	4	



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	5.0	10.0		3.0	10.0	
Minimum Split (s)	8.8	15.8		8.8	15.8	15.8	11.5	16.5		9.5	16.5	
Total Split (s)	27.0	43.0		23.0	39.0	39.0	31.0	72.1		21.9	63.0	
Total Split (%)	16.9%	26.9%		14.4%	24.4%	24.4%	19.4%	45.1%		13.7%	39.4%	
Maximum Green (s)	21.2	37.2		17.2	33.2	33.2	24.5	65.6		15.4	56.5	
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8	5.5	5.5		5.5	5.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8		5.8	5.8	5.8	6.5	6.5		6.5	6.5	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	6.0		2.0	6.0	6.0	2.0	6.0		2.0	6.0	
Minimum Gap (s)	0.2	4.0		0.2	4.0	4.0	0.2	4.0		0.2	4.0	
Time Before Reduce (s)	0.0	20.0		0.0	20.0	20.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	
Act Effct Green (s)	58.4	37.2		50.4	33.2	33.2	24.5	69.2		11.8	56.5	
Actuated g/C Ratio	0.36	0.23		0.32	0.21	0.21	0.15	0.43		0.07	0.35	
v/c Ratio	1.08	1.04		1.13	0.80	0.96	1.17	0.41		0.66	1.15	
Control Delay	116.3	101.4		139.1	69.7	62.0	152.5	32.4		95.2	123.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	116.3	101.4		139.1	69.7	62.0	152.5	32.4		95.2	123.4	
LOS	F	F		F	E	E	F	C		F	F	
Approach Delay		105.5			80.5			92.4			121.8	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~306	~506		~269	312	298	~393	230		89	~905	
Queue Length 95th (ft)	#512	#645		#462	385	#535	#519	294		149	#1047	
Internal Link Dist (ft)		1797			1395			2048			1708	
Turn Bay Length (ft)	250			800			300			150		
Base Capacity (vph)	297	818		236	734	517	525	1518		170	1225	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	1.08	1.04		1.13	0.80	0.96	1.17	0.41		0.51	1.15	

Intersection Summary

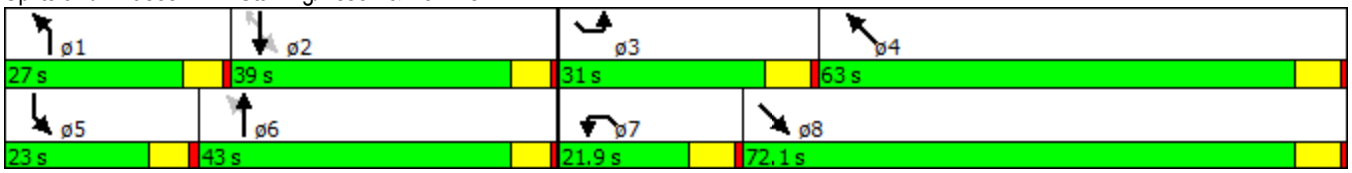
Area Type: Other
Cycle Length: 160
Actuated Cycle Length: 160
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.17
Intersection Signal Delay: 100.7 Intersection LOS: F
Intersection Capacity Utilization 112.1% ICU Level of Service H
Analysis Period (min) 15

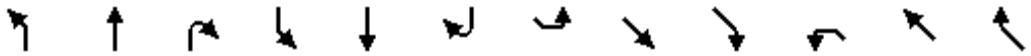
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Starring/Essen & Perkins





Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	0	1441	278	137	1654	0	57	0	1614	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		0	0		800	0		0
Storage Lanes	1		0	2		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.86	0.86	0.97	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt		0.976							0.850			
Flt Protected				0.950			0.950	0.950				
Satd. Flow (prot)	0	6254	0	3433	3539	0	1681	1681	1583	0	0	0
Flt Permitted				0.950			0.950	0.950				
Satd. Flow (perm)	0	6254	0	3433	3539	0	1681	1681	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		76							245			
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		721			409			1012			1106	
Travel Time (s)		10.9			6.2			23.0			25.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1517	293	144	1741	0	60	0	1699	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	0	1810	0	144	1741	0	30	30	1699	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2		1	1	0			
Detector Template							Left					
Leading Detector (ft)		162		45	162		20	45	0			
Trailing Detector (ft)		156		0	156		0	0	0			
Detector 1 Position(ft)		-6		0	-6		0	0	0			
Detector 1 Size(ft)		51		45	51		20	45	20			
Detector 1 Type		Call		Cl+Ex	Call		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Queue (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Delay (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA		Prot	NA		Perm	NA	Free			
Protected Phases		6		5	5 6			8				
Permitted Phases							8		Free			
Detector Phase		6		5	5 6		8	8				

Lane Group	ø1	ø2	ø4
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	1	2	4
Permitted Phases			
Detector Phase			

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)		10.0		3.0			3.0	3.0				
Minimum Split (s)		16.0		9.0			9.0	9.0				
Total Split (s)		80.0		21.0			19.0	19.0				
Total Split (%)		66.7%		17.5%			15.8%	15.8%				
Maximum Green (s)		74.0		15.0			13.0	13.0				
Yellow Time (s)		5.0		5.0			5.0	5.0				
All-Red Time (s)		1.0		1.0			1.0	1.0				
Lost Time Adjust (s)		0.0		0.0			0.0	0.0				
Total Lost Time (s)		6.0		6.0			6.0	6.0				
Lead/Lag		Lag					Lead	Lead				
Lead-Lag Optimize?		Yes					Yes	Yes				
Vehicle Extension (s)		4.0		2.5			2.0	2.0				
Minimum Gap (s)		2.0		0.2			0.2	0.2				
Time Before Reduce (s)		10.0		0.0			0.0	0.0				
Time To Reduce (s)		20.0		0.0			0.0	0.0				
Recall Mode		None		C-Max			Min	Min				
Act Effct Green (s)		68.4		26.9	101.3		6.7	6.7	120.0			
Actuated g/C Ratio		0.57		0.22	0.84		0.06	0.06	1.00			
v/c Ratio		0.50		0.19	0.58		0.32	0.32	1.07			
Control Delay		10.6		31.3	9.9		62.9	62.9	50.1			
Queue Delay		0.0		0.0	1.6		0.0	0.0	11.3			
Total Delay		10.7		31.3	11.5		62.9	62.9	61.4			
LOS		B		C	B		E	E	E			
Approach Delay		10.7			13.0			61.4				
Approach LOS		B			B			E				
Queue Length 50th (ft)		189		49	201		24	24	~187			
Queue Length 95th (ft)		0		73	393		56	56	#451			
Internal Link Dist (ft)		641			329			932			1026	
Turn Bay Length (ft)									800			
Base Capacity (vph)		3967		769	2969		182	182	1583			
Starvation Cap Reductn		0		0	980		0	0	0			
Spillback Cap Reductn		409		0	39		0	0	71			
Storage Cap Reductn		0		0	0		0	0	0			
Reduced v/c Ratio		0.51		0.19	0.88		0.16	0.16	1.12			

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 30 (25%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.07			
Intersection Signal Delay: 27.8		Intersection LOS: C	
Intersection Capacity Utilization 62.0%		ICU Level of Service B	
Analysis Period (min) 15			

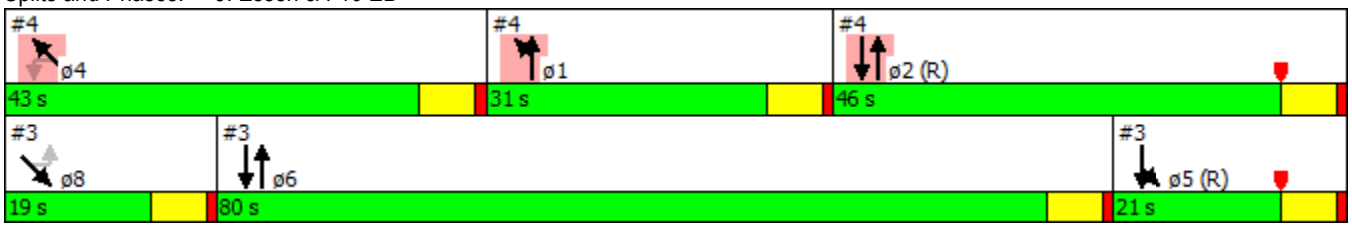
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

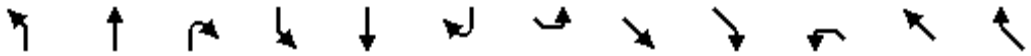
Lane Group	ø1	ø2	ø4
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	31.0	46.0	43.0
Total Split (%)	26%	38%	36%
Maximum Green (s)	25.0	40.0	37.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes
Vehicle Extension (s)	2.5	4.0	4.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	None	C-Max	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

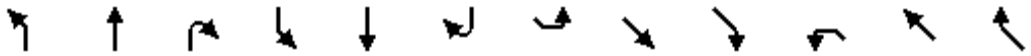
Splits and Phases: 3: Essen & I-10 EB





Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	463	1035	0	0	1261	49	0	0	0	530	0	821
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	550		200	0		0	750		0
Storage Lanes	2		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.86	0.86	1.00	1.00	1.00	0.95	0.95	1.00
Frt					0.994							0.850
Flt Protected	0.950									0.950	0.950	
Satd. Flow (prot)	3433	3539	0	0	6369	0	0	0	0	1681	1681	1583
Flt Permitted	0.950									0.950	0.950	
Satd. Flow (perm)	3433	3539	0	0	6369	0	0	0	0	1681	1681	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7							438
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		409			805			936			1390	
Travel Time (s)		6.2			12.2			21.3			31.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	487	1089	0	0	1327	52	0	0	0	558	0	864
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	487	1089	0	0	1379	0	0	0	0	279	279	864
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			20			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2					1	1	0
Detector Template										Left		
Leading Detector (ft)	45	162			162					20	45	0
Trailing Detector (ft)	0	156			156					0	0	0
Detector 1 Position(ft)	0	-6			-6					0	0	0
Detector 1 Size(ft)	45	51			51					20	45	20
Detector 1 Type	Cl+Ex	Call			Call					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA			NA					Perm	NA	Free
Protected Phases	1	1 2			2						4	
Permitted Phases										4		Free
Detector Phase	1	1 2			2					4	4	

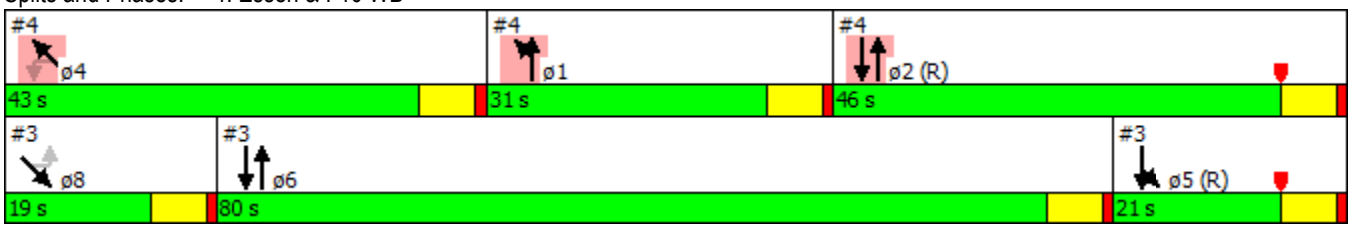
Lane Group	ø5	ø6	ø8
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	5	6	8
Permitted Phases			
Detector Phase			



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0				10.0					3.0	3.0	
Minimum Split (s)	9.0				16.0					9.0	9.0	
Total Split (s)	31.0				46.0					43.0	43.0	
Total Split (%)	25.8%				38.3%					35.8%	35.8%	
Maximum Green (s)	25.0				40.0					37.0	37.0	
Yellow Time (s)	5.0				5.0					5.0	5.0	
All-Red Time (s)	1.0				1.0					1.0	1.0	
Lost Time Adjust (s)	0.0				0.0					0.0	0.0	
Total Lost Time (s)	6.0				6.0					6.0	6.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?	Yes									Yes	Yes	
Vehicle Extension (s)	2.5				4.0					4.0	4.0	
Minimum Gap (s)	0.2				2.0					0.2	0.2	
Time Before Reduce (s)	0.0				10.0					0.0	0.0	
Time To Reduce (s)	0.0				20.0					0.0	0.0	
Recall Mode	None				C-Max					None	None	
Act Effct Green (s)	23.3	81.3			52.0					26.7	26.7	120.0
Actuated g/C Ratio	0.19	0.68			0.43					0.22	0.22	1.00
v/c Ratio	0.73	0.45			0.50					0.75	0.75	0.55
Control Delay	23.0	14.1			28.5					55.4	55.4	1.4
Queue Delay	0.0	0.3			0.0					0.4	0.4	0.0
Total Delay	23.0	14.5			28.5					55.8	55.8	1.4
LOS	C	B			C					E	E	A
Approach Delay		17.1			28.5						22.7	
Approach LOS		B			C						C	
Queue Length 50th (ft)	135	456			236					212	212	0
Queue Length 95th (ft)	181	512			307					287	287	0
Internal Link Dist (ft)		329			725			856			1310	
Turn Bay Length (ft)										750		
Base Capacity (vph)	743	2356			2763					518	518	1583
Starvation Cap Reductn	0	635			0					0	0	0
Spillback Cap Reductn	0	73			0					44	44	32
Storage Cap Reductn	0	0			0					0	0	0
Reduced v/c Ratio	0.66	0.63			0.50					0.59	0.59	0.56

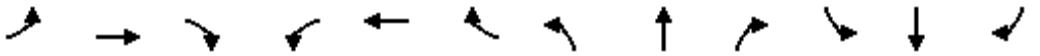
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 30 (25%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.07			
Intersection Signal Delay: 22.5		Intersection LOS: C	
Intersection Capacity Utilization 62.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 4: Essen & I-10 WB

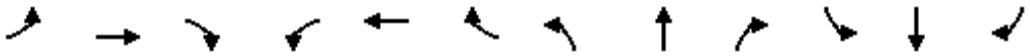


Lane Group	ø5	ø6	ø8
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	21.0	80.0	19.0
Total Split (%)	18%	67%	16%
Maximum Green (s)	15.0	74.0	13.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lead
Lead-Lag Optimize?		Yes	Yes
Vehicle Extension (s)	2.5	4.0	2.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	C-Max	None	Min
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary



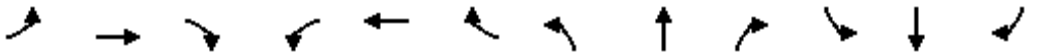
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	0	24	14	0	71	23	1718	53	215	2883	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	300		0	150		200	200		0
Storage Lanes	1		0	0		1	1		1	1		0
Taper Length (ft)	25			25			100			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Frt		0.850				0.850			0.850		0.996	
Flt Protected	0.950				0.950		0.950			0.950		
Satd. Flow (prot)	1770	1583	0	0	1770	1583	1770	5085	1583	1770	5065	0
Flt Permitted	0.748				0.741		0.950			0.950		
Satd. Flow (perm)	1393	1583	0	0	1380	1583	1770	5085	1583	1770	5065	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		136							82		7	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		484			896			836			246	
Travel Time (s)		11.0			20.4			12.7			3.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	21	0	25	15	0	75	24	1808	56	226	3035	81
Shared Lane Traffic (%)												
Lane Group Flow (vph)	21	25	0	0	15	75	24	1808	56	226	3116	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left		Right			Right			
Leading Detector (ft)	45	45		20	45	20	45	162	20	45	162	
Trailing Detector (ft)	0	0		0	0	0	0	156	0	0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6	0	0	-6	
Detector 1 Size(ft)	45	45		20	45	20	45	51	20	45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA	pt+ov	Prot	NA	Perm	Prot	NA	
Protected Phases		8			4	4 5	1	6		5	2	
Permitted Phases	8			4					6			
Detector Phase	8	8		4	4	4 5	1	6	6	5	2	



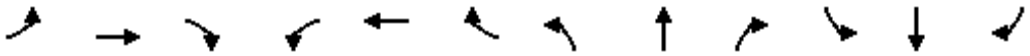
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	15.0	15.0	3.0	15.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	21.0	21.0	11.0	21.0	
Total Split (s)	24.0	24.0		24.0	24.0		11.0	63.0	63.0	33.0	85.0	
Total Split (%)	20.0%	20.0%		20.0%	20.0%		9.2%	52.5%	52.5%	27.5%	70.8%	
Maximum Green (s)	18.0	18.0		18.0	18.0		5.0	57.0	57.0	27.0	79.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0	6.0	6.0	6.0	
Lead/Lag							Lag	Lag	Lag	Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.5	2.5	2.0	2.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0	2.0	0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0	10.0	0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0	20.0	0.0	20.0	
Recall Mode	None	None		None	None		None	Min	Min	None	C-Min	
Act Effct Green (s)	8.3	8.3			8.4	31.7	4.9	76.3	76.3	19.6	96.5	
Actuated g/C Ratio	0.07	0.07			0.07	0.26	0.04	0.64	0.64	0.16	0.80	
v/c Ratio	0.22	0.11			0.16	0.18	0.33	0.56	0.05	0.78	0.77	
Control Delay	56.9	0.9			54.8	31.3	57.7	9.8	1.7	71.1	7.2	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.5	
Total Delay	56.9	0.9			54.8	31.3	57.7	9.8	1.7	71.1	7.8	
LOS	E	A			D	C	E	A	A	E	A	
Approach Delay		26.5			35.2			10.1			12.0	
Approach LOS		C			D			B			B	
Queue Length 50th (ft)	16	0			11	44	19	206	1	185	284	
Queue Length 95th (ft)	42	0			33	73	m31	m188	m4	m227	279	
Internal Link Dist (ft)		404			816			756			166	
Turn Bay Length (ft)	200						150		200	200		
Base Capacity (vph)	208	353			207	516	73	3231	1035	398	4073	
Starvation Cap Reductn	0	0			0	0	0	0	0	0	106	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	472	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.10	0.07			0.07	0.15	0.33	0.56	0.05	0.57	0.87	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 82 (68%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 11.9		Intersection LOS: B	
Intersection Capacity Utilization 83.5%		ICU Level of Service E	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Essen & Margaret Ann



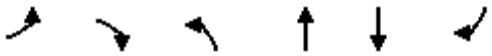
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	6	97	6	46	1	1674	116	190	3054	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	100		0	350		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			150		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.865				0.850		0.990			0.999	
Flt Protected					0.955		0.950			0.950		
Satd. Flow (prot)	0	1611	0	0	1779	1583	1770	5034	0	1770	5080	0
Flt Permitted					0.734		0.950			0.950		
Satd. Flow (perm)	0	1611	0	0	1367	1583	1770	5034	0	1770	5080	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		136						13			2	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		496			1336			489			721	
Travel Time (s)		11.3			30.4			7.4			10.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	6	102	6	48	1	1762	122	200	3215	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	6	0	0	108	48	1	1884	0	200	3240	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45	45	45	144		45	162	
Trailing Detector (ft)	0	0		0	0	0	0	138		0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	20	45		20	45	45	45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								138			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type		NA		Perm	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases		8			4	4 5	1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4	4 5	1	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		4.0	15.0		3.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	21.0		9.0	21.0	
Total Split (s)	25.0	25.0		25.0	25.0		11.0	66.0		29.0	84.0	
Total Split (%)	20.8%	20.8%		20.8%	20.8%		9.2%	55.0%		24.2%	70.0%	
Maximum Green (s)	19.0	19.0		19.0	19.0		5.0	60.0		23.0	78.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		3.0	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)		13.6			13.6	37.1	5.3	70.9		17.6	92.2	
Actuated g/C Ratio		0.11			0.11	0.31	0.04	0.59		0.15	0.77	
v/c Ratio		0.02			0.70	0.10	0.01	0.63		0.77	0.83	
Control Delay		0.2			73.7	26.5	46.0	6.0		63.1	8.3	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	1.0	
Total Delay		0.2			73.7	26.5	46.0	6.0		63.1	9.4	
LOS		A			E	C	D	A		E	A	
Approach Delay		0.2			59.1			6.0			12.5	
Approach LOS		A			E			A			B	
Queue Length 50th (ft)		0			82	26	1	48		142	118	
Queue Length 95th (ft)		0			139	48	m2	45		m165	m627	
Internal Link Dist (ft)		416			1256			409			641	
Turn Bay Length (ft)						100	100			350		
Base Capacity (vph)		369			216	550	78	2977		339	3904	
Starvation Cap Reductn		0			0	0	0	0		0	387	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.02			0.50	0.09	0.01	0.63		0.59	0.92	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 102 (85%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 11.6		Intersection LOS: B	
Intersection Capacity Utilization 90.2%		ICU Level of Service E	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 9: Essen & Essen Park



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	42	19	1790	3133	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	50			0
Storage Lanes	0	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91
Frt		0.865			0.999	
Flt Protected			0.950			
Satd. Flow (prot)	0	1611	1770	5085	5080	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	1611	1770	5085	5080	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	519			246	489	
Travel Time (s)	11.8			3.7	7.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	46	21	1946	3405	25
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	46	21	1946	3430	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 71.0%		ICU Level of Service C	
Analysis Period (min) 15			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	192	192	1671	737	370	1118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		0	150	
Storage Lanes	2	1		0	1	
Taper Length (ft)	25				100	
Lane Util. Factor	0.97	1.00	0.91	0.91	1.00	0.95
Frt		0.850	0.954			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	4851	0	1770	3539
Flt Permitted	0.950				0.055	
Satd. Flow (perm)	3433	1583	4851	0	102	3539
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			142			
Link Speed (mph)	30		45			45
Link Distance (ft)	1306		805			993
Travel Time (s)	29.7		12.2			15.0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	202	202	1759	776	389	1177
Shared Lane Traffic (%)						
Lane Group Flow (vph)	202	202	2535	0	389	1177
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	52		20			25
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2		1	2
Detector Template						
Leading Detector (ft)	45	45	162		45	162
Trailing Detector (ft)	0	0	156		0	156
Detector 1 Position(ft)	0	0	-6		0	-6
Detector 1 Size(ft)	45	45	51		45	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			156			156
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm	pt+ov	NA		pm+pt	NA
Protected Phases		5 8	6		5	2
Permitted Phases	8				2	
Detector Phase	8	5 8	6		5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	4.0		15.0		5.0	15.0
Minimum Split (s)	20.0		21.0		11.0	21.0
Total Split (s)	20.0		70.0		30.0	100.0
Total Split (%)	16.7%		58.3%		25.0%	83.3%
Maximum Green (s)	16.0		64.0		24.0	94.0
Yellow Time (s)	3.5		5.0		5.0	5.0
All-Red Time (s)	0.5		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.0		6.0		6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		5.0		2.0	5.0
Minimum Gap (s)	3.0		3.0		0.2	3.0
Time Before Reduce (s)	0.0		15.0		0.0	15.0
Time To Reduce (s)	0.0		15.0		0.0	15.0
Recall Mode	None		C-Min		None	Min
Walk Time (s)	5.0					
Flash Dont Walk (s)	11.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	14.6	41.9	66.1		95.4	95.4
Actuated g/C Ratio	0.12	0.35	0.55		0.80	0.80
v/c Ratio	0.48	0.37	0.93		0.96	0.42
Control Delay	52.9	30.8	19.6		75.8	5.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	52.9	30.8	19.6		75.8	5.1
LOS	D	C	B		E	A
Approach Delay	41.9		19.6			22.6
Approach LOS	D		B			C
Queue Length 50th (ft)	75	113	700		232	157
Queue Length 95th (ft)	113	178	#284		#455	154
Internal Link Dist (ft)	1226		725			913
Turn Bay Length (ft)		100			150	
Base Capacity (vph)	457	548	2736		414	2813
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.44	0.37	0.93		0.94	0.42

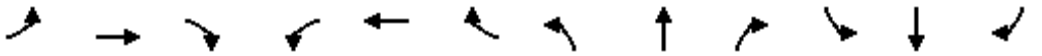
Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 14 (12%), Referenced to phase 6:NBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 22.6	Intersection LOS: C
Intersection Capacity Utilization 88.1%	ICU Level of Service E

Analysis Period (min) 15

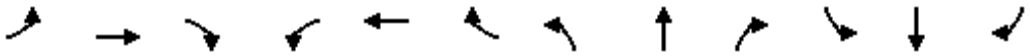
\# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 17: Essen & United Plaza South



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	339	33	22	67	132	214	115	1241	64	227	1424	1270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	425		50	280		280	150		0	550		300
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	100			200			25			100		
Lane Util. Factor	0.91	0.91	1.00	0.95	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Frt			0.850			0.850		0.993				0.850
Flt Protected	0.950	0.965		0.950	0.998		0.950			0.950		
Satd. Flow (prot)	3221	1636	1583	1681	1766	1583	1770	5050	0	1770	5085	1583
Flt Permitted	0.950	0.965		0.950	0.998		0.950			0.950		
Satd. Flow (perm)	3221	1636	1583	1681	1766	1583	1770	5050	0	1770	5085	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								8				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1908			1396			1335			836	
Travel Time (s)		43.4			31.7			20.2			12.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	357	35	23	71	139	225	121	1306	67	239	1499	1337
Shared Lane Traffic (%)	27%			10%								
Lane Group Flow (vph)	261	131	23	64	146	225	121	1373	0	239	1499	1337
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		45			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	0	1	1	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	0	45	45	45	45	162		45	162	0
Trailing Detector (ft)	0	0	0	0	0	0	0	156		0	156	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	-6		0	-6	-6
Detector 1 Size(ft)	45	45	20	45	45	45	45	51		45	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Call
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4	4 5	1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4	4 5	1	6		5	2	2 8

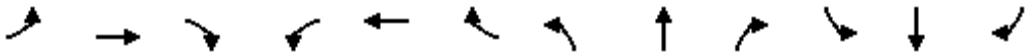


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.5	14.5		14.5	14.5		9.0	21.0		9.0	21.0	
Total Split (s)	17.0	17.0		17.0	17.0		14.0	54.0		32.0	72.0	
Total Split (%)	14.2%	14.2%		14.2%	14.2%		11.7%	45.0%		26.7%	60.0%	
Maximum Green (s)	10.5	10.5		10.5	10.5		8.0	48.0		26.0	66.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	10.5	10.5	18.0	10.5	10.5	36.6	8.0	53.9		20.1	66.0	83.0
Actuated g/C Ratio	0.09	0.09	0.15	0.09	0.09	0.30	0.07	0.45		0.17	0.55	0.69
v/c Ratio	0.93	0.92	0.10	0.44	0.95	0.47	1.03	0.60		0.80	0.54	1.22
Control Delay	92.8	110.4	29.5	61.8	114.8	36.4	153.2	15.9		66.4	11.9	127.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.7
Total Delay	92.8	110.4	29.5	61.8	114.8	36.4	153.2	15.9		66.4	11.9	128.3
LOS	F	F	C	E	F	D	F	B		E	B	F
Approach Delay		94.9			66.4			27.0			66.7	
Approach LOS		F			E			C			E	
Queue Length 50th (ft)	112	112	12	50	120	140	~101	301		166	205	~1315
Queue Length 95th (ft)	#199	#247	31	100	#258	202	m#231	376		m215	158	#1575
Internal Link Dist (ft)		1828			1316			1255			756	
Turn Bay Length (ft)	425		50	280		280	150			550		300
Base Capacity (vph)	281	143	237	147	154	560	118	2270		383	2796	1094
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	143
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.93	0.92	0.10	0.44	0.95	0.40	1.03	0.60		0.62	0.54	1.41

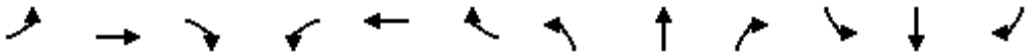
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 81 (68%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.22			
Intersection Signal Delay: 57.9		Intersection LOS: E	
Intersection Capacity Utilization 107.4%		ICU Level of Service G	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Essen & Hennessy/Summa



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	76	51	71	57	206	26	210	1319	100	77	1154	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	150		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.913			0.983			0.989			0.971	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1701	0	1770	1831	0	1770	5029	0	1770	4938	0
Flt Permitted	0.291			0.585			0.950			0.950		
Satd. Flow (perm)	542	1701	0	1090	1831	0	1770	5029	0	1770	4938	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		54			5			16			61	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1062			1416			1475			1335	
Travel Time (s)		24.1			32.2			22.3			20.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	80	54	75	60	217	27	221	1388	105	81	1215	295
Shared Lane Traffic (%)												
Lane Group Flow (vph)	80	129	0	60	244	0	221	1493	0	81	1510	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template												
Leading Detector (ft)	45	45		45	45		45	162		45	162	
Trailing Detector (ft)	0	0		0	0		0	156		0	156	
Detector 1 Position(ft)	0	0		0	0		0	-6		0	-6	
Detector 1 Size(ft)	45	45		45	45		45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4		1	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		2.0	15.0		3.0	15.0	
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	21.0		9.0	21.0	
Total Split (s)	33.0	33.0		33.0	33.0		29.0	73.0		14.0	58.0	
Total Split (%)	27.5%	27.5%		27.5%	27.5%		24.2%	60.8%		11.7%	48.3%	
Maximum Green (s)	28.0	28.0		28.0	28.0		23.0	67.0		8.0	52.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Act Effct Green (s)	20.4	20.4		20.4	20.4		19.0	74.6		8.0	63.6	
Actuated g/C Ratio	0.17	0.17		0.17	0.17		0.16	0.62		0.07	0.53	
v/c Ratio	0.87	0.39		0.32	0.77		0.79	0.48		0.69	0.57	
Control Delay	111.7	27.7		46.6	62.5		68.4	13.3		63.9	6.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	111.7	27.7		46.6	62.5		68.4	13.3		63.9	6.5	
LOS	F	C		D	E		E	B		E	A	
Approach Delay		59.9			59.4			20.4			9.5	
Approach LOS		E			E			C			A	
Queue Length 50th (ft)	61	51		41	179		166	210		64	36	
Queue Length 95th (ft)	#134	103		79	254		247	289		#141	309	
Internal Link Dist (ft)		982			1336			1395			1255	
Turn Bay Length (ft)	225			150			150			150		
Base Capacity (vph)	126	438		254	431		339	3130		118	2645	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.63	0.29		0.24	0.57		0.65	0.48		0.69	0.57	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 76 (63%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 21.1		Intersection LOS: C	
Intersection Capacity Utilization 75.1%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 22: Essen & Picardy

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	26	31	1997	201	397	1510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	125		125	125	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.88	0.91	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2787	5085	1583	1770	3539
Flt Permitted	0.950				0.054	
Satd. Flow (perm)	1770	2787	5085	1583	101	3539
Right Turn on Red		Yes		No		
Satd. Flow (RTOR)		33				
Link Speed (mph)	30		45			45
Link Distance (ft)	1179		993			571
Travel Time (s)	26.8		15.0			8.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	27	33	2102	212	418	1589
Shared Lane Traffic (%)						
Lane Group Flow (vph)	27	33	2102	212	418	1589
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	42		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template						
Leading Detector (ft)	45	45	290	45	45	290
Trailing Detector (ft)	-6	-6	284	-6	-6	284
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			284			284
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	pt+ov	pm+pt	NA
Protected Phases	4		6	6 4	5	2
Permitted Phases		4			2	
Detector Phase	4	4	6	6 4	5	2

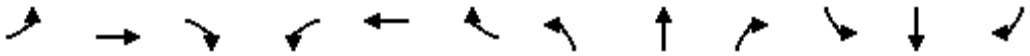
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	5.0	5.0	15.0		3.0	15.0
Minimum Split (s)	11.0	11.0	21.0		9.0	21.0
Total Split (s)	17.0	17.0	62.0		41.0	103.0
Total Split (%)	14.2%	14.2%	51.7%		34.2%	85.8%
Maximum Green (s)	11.0	11.0	56.0		35.0	97.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0
Recall Mode	None	None	C-Min		None	Min
Act Effct Green (s)	6.6	6.6	68.1	80.7	101.4	101.4
Actuated g/C Ratio	0.06	0.06	0.57	0.67	0.84	0.84
v/c Ratio	0.28	0.18	0.73	0.20	0.90	0.53
Control Delay	61.0	19.5	11.6	4.3	55.2	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	61.0	19.5	11.6	4.3	55.2	1.5
LOS	E	B	B	A	E	A
Approach Delay	38.2		11.0			12.7
Approach LOS	D		B			B
Queue Length 50th (ft)	20	0	137	24	251	100
Queue Length 95th (ft)	51	18	450	m31	303	0
Internal Link Dist (ft)	1099		913			491
Turn Bay Length (ft)		125		125	125	
Base Capacity (vph)	162	285	2885	1122	578	2989
Starvation Cap Reductn	0	0	0	0	0	400
Spillback Cap Reductn	0	0	31	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.12	0.74	0.19	0.72	0.61

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 23 (19%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 12.1 Intersection LOS: B
Intersection Capacity Utilization 79.7% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 28: Essen & United Plaza North

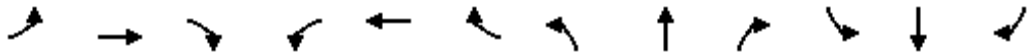
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	2	22	30	0	34	18	1886	125	385	1855	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		100	175		0	150		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	0.95
Frt		0.862				0.850		0.991			0.998	
Flt Protected	0.950				0.950		0.950			0.950		
Satd. Flow (prot)	1770	1606	0	0	1770	1583	1770	5040	0	1770	3532	0
Flt Permitted	0.736				0.741		0.101			0.062		
Satd. Flow (perm)	1371	1606	0	0	1380	1583	188	5040	0	115	3532	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		23						11			2	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		757			843			571			472	
Travel Time (s)		17.2			19.2			8.7			7.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	47	2	23	32	0	36	19	1985	132	405	1953	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	25	0	0	32	36	19	2117	0	405	1976	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290		45	390	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284		-6	384	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6		-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51		51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			384	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		8		7	4	4 5	1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4	4 5	1	6		5	2	



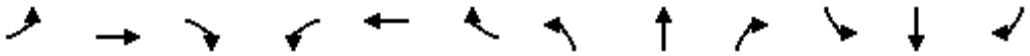
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	31.0		11.0	31.0	
Total Split (s)	14.0	14.0		11.0	25.0		11.0	59.0		36.0	84.0	
Total Split (%)	11.7%	11.7%		9.2%	20.8%		9.2%	49.2%		30.0%	70.0%	
Maximum Green (s)	8.0	8.0		5.0	19.0		5.0	53.0		30.0	78.0	
Yellow Time (s)	4.5	4.5		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		2.0	2.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lead		Lag			Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	3.0		0.2	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	7.9	7.9			7.9	37.5	70.7	70.5		94.8	96.0	
Actuated g/C Ratio	0.07	0.07			0.07	0.31	0.59	0.59		0.79	0.80	
v/c Ratio	0.52	0.20			0.35	0.07	0.09	0.71		0.91	0.70	
Control Delay	73.6	24.3			63.4	23.6	7.1	7.5		53.9	8.6	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		1.1	0.6	
Total Delay	73.6	24.3			63.4	23.6	7.1	7.5		54.9	9.2	
LOS	E	C			E	C	A	A		D	A	
Approach Delay		56.5			42.3			7.5			16.9	
Approach LOS		E			D			A			B	
Queue Length 50th (ft)	36	2			24	19	1	59		271	83	
Queue Length 95th (ft)	76	29			57	36	m3	88		m314	361	
Internal Link Dist (ft)		677			763			491			392	
Turn Bay Length (ft)	75					100	175			150		
Base Capacity (vph)	99	138			218	573	216	2966		528	2852	
Starvation Cap Reductn	0	0			0	0	0	0		27	444	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.47	0.18			0.15	0.06	0.09	0.71		0.81	0.82	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 14 (12%), Referenced to phase 2:SBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 13.6		Intersection LOS: B	
Intersection Capacity Utilization 84.7%		ICU Level of Service E	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 29: Essen & Sholar/Archives



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	401	0	313	0	0	0	0	1330	634	0	1949	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.867							0.850			
Flt Protected	0.950	0.994										
Satd. Flow (prot)	1681	1525	0	0	0	0	0	3539	1583	0	3539	0
Flt Permitted	0.950	0.994										
Satd. Flow (perm)	1681	1525	0	0	0	0	0	3539	1583	0	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36							299			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		995			508			472			1384	
Travel Time (s)		22.6			11.5			7.2			21.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	422	0	329	0	0	0	0	1400	667	0	2052	0
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	380	371	0	0	0	0	0	1400	667	0	2052	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1						2	1		2	
Detector Template												
Leading Detector (ft)	45	45						290	45		290	
Trailing Detector (ft)	-6	-6						284	-6		284	
Detector 1 Position(ft)	-6	-6						-6	-6		-6	
Detector 1 Size(ft)	51	51						51	51		51	
Detector 1 Type	Cl+Ex	Cl+Ex						Call	Cl+Ex		Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0		0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA						NA	Free		NA	
Protected Phases		8						6			2	
Permitted Phases	8								Free			
Detector Phase	8	8						6			2	

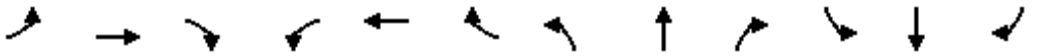


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	10.0	10.0						25.0			25.0	
Minimum Split (s)	17.0	17.0						32.0			32.0	
Total Split (s)	38.0	38.0						82.0			82.0	
Total Split (%)	31.7%	31.7%						68.3%			68.3%	
Maximum Green (s)	31.0	31.0						75.0			75.0	
Yellow Time (s)	5.0	5.0						5.0			5.0	
All-Red Time (s)	2.0	2.0						2.0			2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	7.0	7.0						7.0			7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5						5.0			5.0	
Minimum Gap (s)	0.2	0.2						3.0			3.0	
Time Before Reduce (s)	0.0	0.0						15.0			15.0	
Time To Reduce (s)	0.0	0.0						15.0			15.0	
Recall Mode	None	None						C-Max			Max	
Act Effct Green (s)	29.4	29.4						76.6	120.0		76.6	
Actuated g/C Ratio	0.24	0.24						0.64	1.00		0.64	
v/c Ratio	0.92	0.93						0.62	0.42		0.91	
Control Delay	72.9	69.8						4.4	1.4		26.6	
Queue Delay	0.0	9.4						0.1	0.0		0.0	
Total Delay	72.9	79.2						4.5	1.4		26.6	
LOS	E	E						A	A		C	
Approach Delay		76.0						3.5			26.6	
Approach LOS		E						A			C	
Queue Length 50th (ft)	297	266						42	0		696	
Queue Length 95th (ft)	#480	#454						53	11		#845	
Internal Link Dist (ft)		915			428			392			1304	
Turn Bay Length (ft)	400											
Base Capacity (vph)	434	420						2257	1583		2257	
Starvation Cap Reductn	0	0						114	0		0	
Spillback Cap Reductn	0	35						0	0		0	
Storage Cap Reductn	0	0						0	0		0	
Reduced v/c Ratio	0.88	0.96						0.65	0.42		0.91	

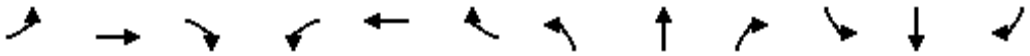
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 30 (25%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.93			
Intersection Signal Delay: 24.4		Intersection LOS: C	
Intersection Capacity Utilization 86.2%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 32: Essen & I-12 EB

M.26 2037 NO BUILD AM – BLUEBONNET BOULEVARD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	148	748	40	355	849	152	227	1261	239	212	901	239
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		250	325		375	350		0	250		150
Storage Lanes	2		1	2		1	2		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Frt			0.850			0.850		0.976				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3454	0	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3454	0	3433	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								17				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		2445			3864			2201			709	
Travel Time (s)		37.0			58.5			33.3			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	156	787	42	374	894	160	239	1327	252	223	948	252
Shared Lane Traffic (%)												
Lane Group Flow (vph)	156	787	42	374	894	160	239	1579	0	223	948	252
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45	45	290		45	290	45
Trailing Detector (ft)	-6	284	-6	-6	284	-6	-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6	-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51	51	51		51	51	51
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		284			284			284			284	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Extend			Extend			Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8		7	4	4 5
Permitted Phases												
Detector Phase	5	2	2 3	1	6	6 7	3	8		7	4	4 5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	10.0		4.0	10.0	
Minimum Split (s)	11.0	34.5		11.0	37.5		11.0	41.0		11.0	41.0	
Total Split (s)	15.0	44.2		25.0	54.2		24.0	82.8		18.0	76.8	
Total Split (%)	8.8%	26.0%		14.7%	31.9%		14.1%	48.7%		10.6%	45.2%	
Maximum Green (s)	8.0	37.7		18.0	47.7		17.0	75.8		11.0	69.8	
Yellow Time (s)	5.0	4.5		5.0	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	6.5		7.0	6.5		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.3		3.0	4.3		3.0	3.9		3.0	3.9	
Minimum Gap (s)	0.2	2.2		0.2	2.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	15.0		0.0	15.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0		0.0	10.0		0.0	10.0	
Recall Mode	None	Min		None	Min		None	Min		None	C-Min	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		23.0			26.0			29.0			29.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	8.0	37.7	72.9	18.0	47.7	65.7	34.7	75.8		11.0	52.1	60.1
Actuated g/C Ratio	0.05	0.22	0.43	0.11	0.28	0.39	0.20	0.45		0.06	0.31	0.35
v/c Ratio	0.97	1.00	0.06	1.03	0.90	0.26	0.34	1.02		1.00	0.88	0.45
Control Delay	141.2	97.7	18.1	126.9	71.6	37.1	61.1	73.2		140.3	58.5	26.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.1	0.0
Total Delay	141.2	97.7	18.1	126.9	71.6	37.1	61.1	73.2		140.3	58.6	26.0
LOS	F	F	B	F	E	D	E	E		F	E	C
Approach Delay		101.2			82.2			71.6			65.6	
Approach LOS		F			F			E			E	
Queue Length 50th (ft)	91	~468	18	~228	508	122	119	~971		~124	532	86
Queue Length 95th (ft)	#172	#614	41	#340	#621	184	175	#1109		#232	472	193
Internal Link Dist (ft)		2365			3784			2121			629	
Turn Bay Length (ft)	440		250	325		375	350			250		150
Base Capacity (vph)	161	784	679	363	993	611	701	1549		222	1453	724
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	33	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.97	1.00	0.06	1.03	0.90	0.26	0.34	1.02		1.00	0.67	0.35

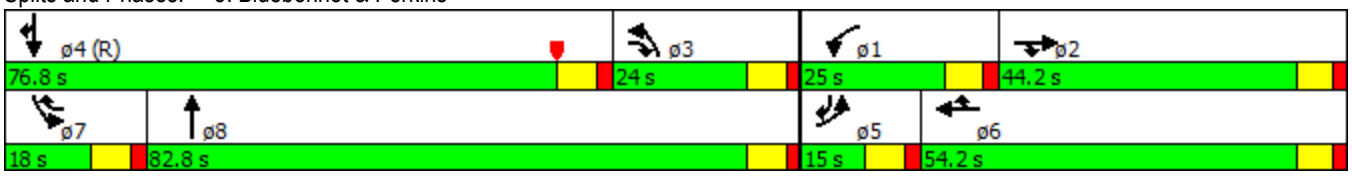
Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 50 (29%), Referenced to phase 4:SBT, Start of Yellow			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.03			
Intersection Signal Delay: 77.9		Intersection LOS: E	
Intersection Capacity Utilization 102.2%		ICU Level of Service G	

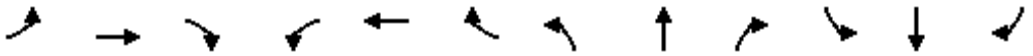
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

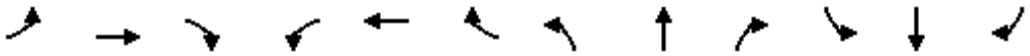
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Bluebonnet & Perkins





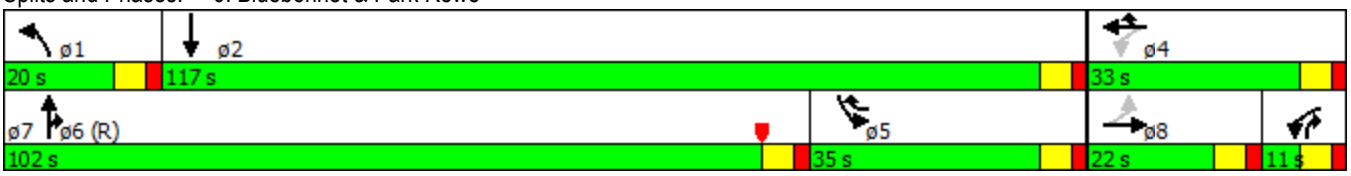
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	66	17	26	26	3	24	44	1439	78	371	1300	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		125	160		160	175		0
Storage Lanes	1		0	0		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.910				0.850			0.850		0.993	
Flt Protected	0.950				0.957		0.950			0.950		
Satd. Flow (prot)	1770	1695	0	0	1783	1583	1770	3539	1583	3433	3514	0
Flt Permitted	0.738				0.762		0.950			0.950		
Satd. Flow (perm)	1375	1695	0	0	1419	1583	1770	3539	1583	3433	3514	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		27									6	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		511			1048			709			2556	
Travel Time (s)		11.6			23.8			10.7			38.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	69	18	27	27	3	25	46	1515	82	391	1368	67
Shared Lane Traffic (%)												
Lane Group Flow (vph)	69	45	0	0	30	25	46	1515	82	391	1435	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290	45	45	290	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284	-6	-6	284	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6	-6	-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	
Protected Phases		8		7	4	4 5	1	6	6 7	5	2	
Permitted Phases	8			4								
Detector Phase	8	8		7	4	4 5	1	6	6 7	5	2	

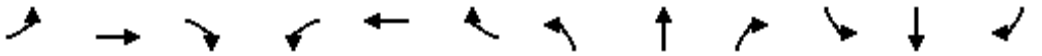


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		3.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	11.0	11.0		9.0	11.0		9.0	21.0		9.0	21.0	
Total Split (s)	22.0	22.0		11.0	33.0		20.0	102.0		35.0	117.0	
Total Split (%)	12.9%	12.9%		6.5%	19.4%		11.8%	60.0%		20.6%	68.8%	
Maximum Green (s)	16.0	16.0		5.0	27.0		14.0	96.0		29.0	111.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lead		Lag			Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		1.5	2.0		1.5	4.0		1.5	4.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	12.5	12.5			24.7	54.0	8.4	104.0	116.2	23.4	121.0	
Actuated g/C Ratio	0.07	0.07			0.15	0.32	0.05	0.61	0.68	0.14	0.71	
v/c Ratio	0.69	0.30			0.14	0.05	0.53	0.70	0.08	0.83	0.57	
Control Delay	108.6	41.1			63.3	37.1	89.6	28.4	13.0	86.4	14.2	
Queue Delay	0.0	0.0			0.0	0.0	0.0	1.1	0.0	0.0	0.0	
Total Delay	108.6	41.1			63.3	37.1	89.6	29.5	13.0	86.4	14.2	
LOS	F	D			E	D	F	C	B	F	B	
Approach Delay		81.9			51.4			30.4			29.7	
Approach LOS		F			D			C			C	
Queue Length 50th (ft)	76	19			29	19	52	566	48	222	410	
Queue Length 95th (ft)	134	63			63	42	m57	m181	m18	274	516	
Internal Link Dist (ft)		431			968			629			2476	
Turn Bay Length (ft)	100					125	160		160	175		
Base Capacity (vph)	129	183			243	524	145	2164	1070	585	2503	
Starvation Cap Reductn	0	0			0	0	0	385	0	0	0	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.53	0.25			0.12	0.05	0.32	0.85	0.08	0.67	0.57	

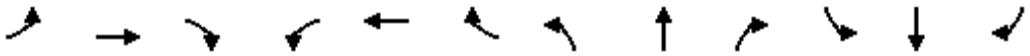
Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 85 (50%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 32.0		Intersection LOS: C	
Intersection Capacity Utilization 75.7%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Bluebonnet & Park Rowe





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	162	8	42	17	4	28	65	1457	7	63	1676	447
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	475		475	50		0	425		0	130		130
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.868			0.999				0.850
Flt Protected	0.950	0.956		0.950			0.950			0.950		
Satd. Flow (prot)	1681	1692	1583	1770	1617	0	1770	3536	0	1770	3539	1583
Flt Permitted	0.950	0.956		0.950			0.950			0.950		
Satd. Flow (perm)	1681	1692	1583	1770	1617	0	1770	3536	0	1770	3539	1583
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)					29			1				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1004			740			2556			469	
Travel Time (s)		22.8			16.8			38.7			7.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	171	8	44	18	4	29	68	1534	7	66	1764	471
Shared Lane Traffic (%)	48%											
Lane Group Flow (vph)	89	90	44	18	33	0	68	1541	0	66	1764	471
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	45	45	45		45	290		45	290	45
Trailing Detector (ft)	-6	-6	-6	-6	-6		-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6		-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51		51	51		51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA		Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4		1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4		1	6		5	2	2 8



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.5	25.5		8.5	25.5	
Total Split (s)	16.0	16.0		12.0	12.0		12.0	72.0		15.0	75.0	
Total Split (%)	13.9%	13.9%		10.4%	10.4%		10.4%	62.6%		13.0%	65.2%	
Maximum Green (s)	11.0	11.0		7.0	7.0		6.5	66.5		9.5	69.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	6.0		3.0	6.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	11.1	11.1	23.7	7.1	7.1		7.0	72.0		11.0	76.1	90.0
Actuated g/C Ratio	0.10	0.10	0.21	0.06	0.06		0.06	0.63		0.10	0.66	0.78
v/c Ratio	0.55	0.55	0.14	0.17	0.26		0.63	0.70		0.39	0.75	0.38
Control Delay	62.9	62.9	38.8	54.9	25.9		78.6	18.4		45.1	10.0	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.3	0.0
Total Delay	62.9	62.9	38.8	54.9	25.9		78.6	18.4		45.1	10.3	3.6
LOS	E	E	D	D	C		E	B		D	B	A
Approach Delay		58.2			36.1			20.9			9.9	
Approach LOS		E			D			C			A	
Queue Length 50th (ft)	67	68	27	13	3		50	431		49	169	45
Queue Length 95th (ft)	125	125	60	37	35		#123	515		m79	233	114
Internal Link Dist (ft)		924			660			2476			389	
Turn Bay Length (ft)	475		475	50			425			130		130
Base Capacity (vph)	168	169	317	109	127		108	2223		179	2341	1229
Starvation Cap Reductn	0	0	0	0	0		0	0		0	149	0
Spillback Cap Reductn	0	0	0	0	0		0	21		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.53	0.53	0.14	0.17	0.26		0.63	0.70		0.37	0.80	0.38

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 115

Offset: 81 (70%), Referenced to phase 6:NBT, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 17.1 Intersection LOS: B

Intersection Capacity Utilization 74.1% ICU Level of Service D

Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Bluebonnet & Anselmo

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Lane Configurations									
Volume (vph)	150	48	1568	79	58	2036			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	0	100		150	350				
Storage Lanes	2	1		1	1				
Taper Length (ft)	25				25				
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.91			
Frt		0.850		0.850					
Flt Protected	0.950				0.950				
Satd. Flow (prot)	3433	1583	3539	1583	1770	5085			
Flt Permitted	0.950				0.950				
Satd. Flow (perm)	3433	1583	3539	1583	1770	5085			
Right Turn on Red		No		No					
Satd. Flow (RTOR)									
Link Speed (mph)	30		45			45			
Link Distance (ft)	352		390			974			
Travel Time (s)	8.0		5.9			14.8			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95			
Adj. Flow (vph)	158	51	1651	83	61	2143			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	158	51	1651	83	61	2143			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Right	Left	Left			
Median Width(ft)	35		20			20			
Link Offset(ft)	0		0			0			
Crosswalk Width(ft)	16		16			16			
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Turning Speed (mph)	15	9		9	15				
Number of Detectors	1	1	2	1	1	2			
Detector Template									
Leading Detector (ft)	45	45	290	45	45	290			
Trailing Detector (ft)	-6	-6	284	-6	-6	284			
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			
Detector 1 Size(ft)	51	51	51	51	51	51			
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call			
Detector 1 Channel									
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)			284			284			
Detector 2 Size(ft)			6			6			
Detector 2 Type			Extend			Extend			
Detector 2 Channel									
Detector 2 Extend (s)			0.0			0.0			
Turn Type	Prot	pt+ov	NA	pt+ov	Prot	NA			
Protected Phases	4	4 3	1	1 4	3	2	5	7	8
Permitted Phases									
Detector Phase	4	4 3	1	1 4	3	2			

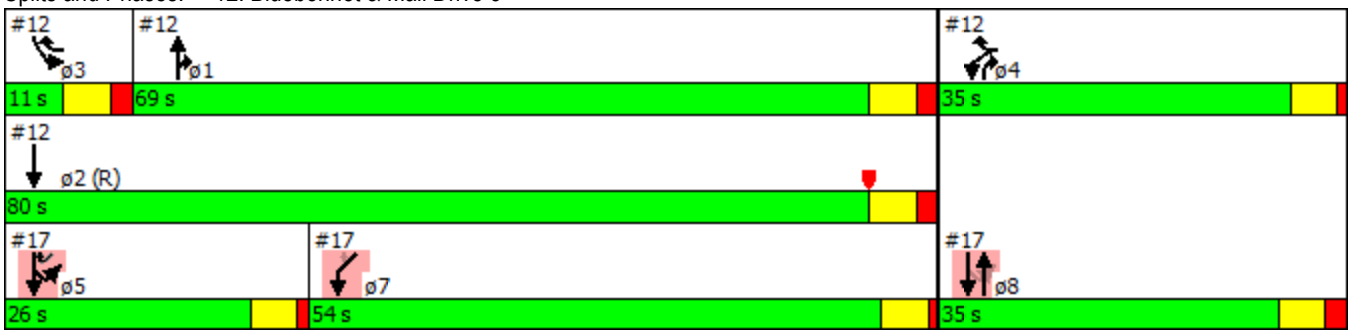
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Switch Phase									
Minimum Initial (s)	4.0		24.0		4.0	34.0	4.0	4.0	29.0
Minimum Split (s)	10.0		30.0		10.0	40.0	10.0	21.0	35.0
Total Split (s)	35.0		69.0		11.0	80.0	26.0	54.0	35.0
Total Split (%)	30.4%		60.0%		9.6%	69.6%	23%	47%	30%
Maximum Green (s)	30.0		63.0		5.0	74.0	21.0	49.0	29.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		2.0		2.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0			
Total Lost Time (s)	5.0		6.0		6.0	6.0			
Lead/Lag			Lag		Lead		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	
Vehicle Extension (s)	2.5		4.3		2.0	4.3	2.5	3.0	4.3
Minimum Gap (s)	0.2		2.2		0.2	2.2	0.2	3.0	2.2
Time Before Reduce (s)	0.0		20.0		0.0	30.0	0.0	0.0	30.0
Time To Reduce (s)	0.0		15.0		0.0	15.0	0.0	0.0	15.0
Recall Mode	None		Min		None	C-Min	None	None	Min
Walk Time (s)								5.0	
Flash Dont Walk (s)								11.0	
Pedestrian Calls (#/hr)								0	
Act Effct Green (s)	30.0	42.6	61.4	96.4	6.6	74.0			
Actuated g/C Ratio	0.26	0.37	0.53	0.84	0.06	0.64			
v/c Ratio	0.18	0.09	0.87	0.06	0.60	0.65			
Control Delay	18.7	11.6	17.4	0.2	68.9	11.8			
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay	18.7	11.6	17.4	0.2	68.9	11.9			
LOS	B	B	B	A	E	B			
Approach Delay	17.0		16.6			13.4			
Approach LOS	B		B			B			
Queue Length 50th (ft)	41	23	226	0	48	132			
Queue Length 95th (ft)	56	42	290	m1	m57	m87			
Internal Link Dist (ft)	272		310			894			
Turn Bay Length (ft)		100		150	350				
Base Capacity (vph)	895	587	1938	1299	101	3272			
Starvation Cap Reductn	0	0	0	0	0	0			
Spillback Cap Reductn	14	0	0	0	0	20			
Storage Cap Reductn	0	0	0	0	0	0			
Reduced v/c Ratio	0.18	0.09	0.85	0.06	0.60	0.66			

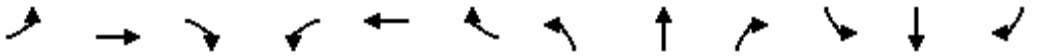
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 69 (60%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 14.9		Intersection LOS: B	
Intersection Capacity Utilization 61.6%		ICU Level of Service B	

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

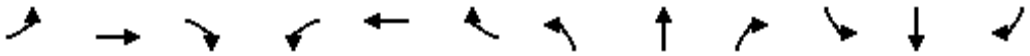
Splits and Phases: 12: Bluebonnet & Mall Drive 3





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	391	8	275	64	152	2	242	1370	4	45	1754	971
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	140		140	200		200	200		160
Storage Lanes	2		0	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		0.854				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3022	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3022	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		289										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1050			403			974			1065	
Travel Time (s)		23.9			9.2			14.8			16.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	412	8	289	67	160	2	255	1442	4	47	1846	1022
Shared Lane Traffic (%)												
Lane Group Flow (vph)	412	297	0	67	160	2	255	1442	4	47	1846	1022
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			36			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pt+ov
Protected Phases	3	2		9	8	8 6	1	10	10 9	6	5	5 3
Permitted Phases												
Detector Phase	3	2		9	8	8 6	1	10	10 9	6	5	5 3

Lane Group	ø11	ø12	ø13	ø14
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	11	12	13	14
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	21.0		3.0	21.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		11.0	27.0		11.0	27.0	
Total Split (s)	33.0	33.0		11.0	11.0		22.0	47.0		24.0	49.0	
Total Split (%)	28.7%	28.7%		9.6%	9.6%		19.1%	40.9%		20.9%	42.6%	
Maximum Green (s)	27.0	27.0		5.0	5.0		16.0	41.0		18.0	43.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.0		1.0	1.0		3.0	4.3		1.0	4.3	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	28.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	15.0	
Recall Mode	None	None		None	None		None	None		None	C-Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	27.0	27.0		4.8	5.0	27.7	16.0	45.9	56.7	23.7	43.0	76.0
Actuated g/C Ratio	0.23	0.23		0.04	0.04	0.24	0.14	0.40	0.49	0.21	0.37	0.66
v/c Ratio	0.51	0.32		0.47	1.05	0.01	1.04	0.71	0.01	0.07	0.97	0.98
Control Delay	40.9	5.6		59.2	135.2	43.0	85.0	14.6	1.5	66.4	35.8	33.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.9	5.6		59.2	135.2	43.0	85.0	14.6	1.5	66.4	35.8	33.4
LOS	D	A		E	F	D	F	B	A	E	D	C
Approach Delay		26.1			112.1			25.1			35.5	
Approach LOS		C			F			C			D	
Queue Length 50th (ft)	137	2		27	~69	1	~187	19	0	16	376	254
Queue Length 95th (ft)	187	37		52	#143	m7	m#270	112	m1	m25	#592	#1005
Internal Link Dist (ft)		970			323			894			985	
Turn Bay Length (ft)	150			140		140	200		200	200		160
Base Capacity (vph)	806	930		149	153	517	246	2251	821	1002	1901	1046
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.32		0.45	1.05	0.00	1.04	0.64	0.00	0.05	0.97	0.98

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 57 (50%), Referenced to phase 5:SBT, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.05			
Intersection Signal Delay: 34.3		Intersection LOS: C	
Intersection Capacity Utilization 92.7%		ICU Level of Service F	

Lane Group	ø11	ø12	ø13	ø14
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	3.0
Minimum Split (s)	10.0	20.0	8.0	9.0
Total Split (s)	11.0	34.0	33.0	37.0
Total Split (%)	10%	30%	29%	32%
Maximum Green (s)	5.0	30.0	29.0	31.0
Yellow Time (s)	4.0	3.5	3.5	4.0
All-Red Time (s)	2.0	0.5	0.5	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	1.0
Minimum Gap (s)	3.0	3.0	3.0	0.2
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Walk Time (s)		5.0		
Flash Dont Walk (s)		11.0		
Pedestrian Calls (#/hr)		0		
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

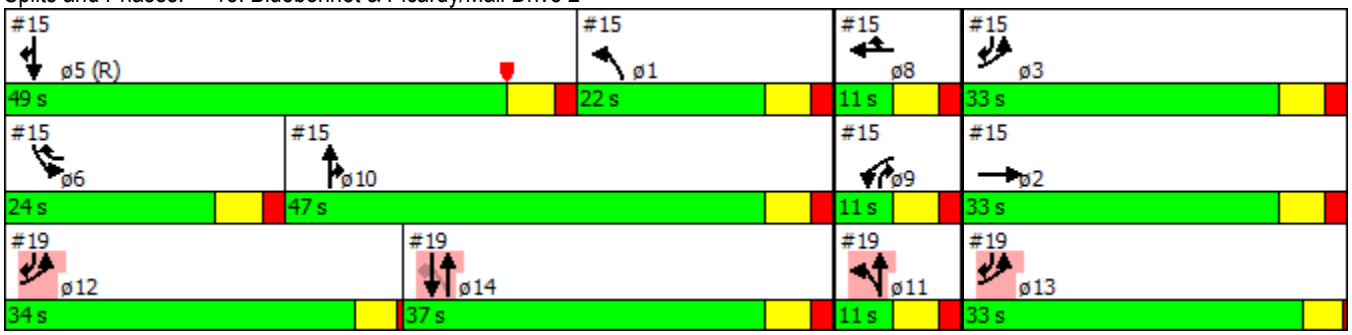
Analysis Period (min) 15

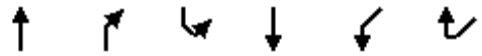
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

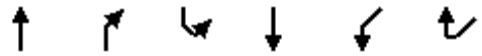
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 15: Bluebonnet & Picardy/Mall Drive 2





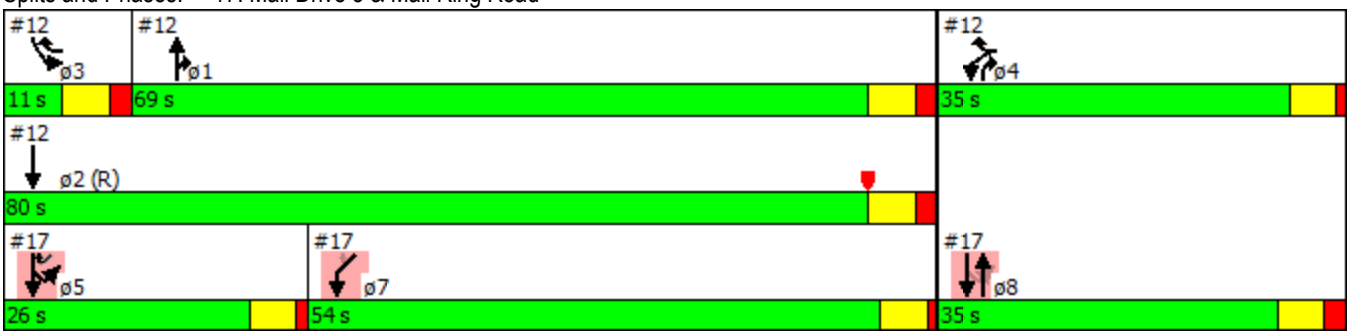
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Lane Configurations										
Volume (vph)	114	106	69	68	88	84				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00				
Frt	0.928					0.850				
Flt Protected			0.950		0.950					
Satd. Flow (prot)	3284	0	1770	1863	1770	1583				
Flt Permitted			0.594		0.950					
Satd. Flow (perm)	3284	0	1106	1863	1770	1583				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)	115					91				
Link Speed (mph)	30			30	30					
Link Distance (ft)	797			352	1050					
Travel Time (s)	18.1			8.0	23.9					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Adj. Flow (vph)	124	115	75	74	96	91				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	239	0	75	74	96	91				
Enter Blocked Intersection	No	No	No	No	No	No				
Lane Alignment	Left	Right	Left	Left	Left	Right				
Median Width(ft)	0			12	12					
Link Offset(ft)	0			0	0					
Crosswalk Width(ft)	16			16	16					
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)		9	15		15	9				
Number of Detectors	2		1	2	1	1				
Detector Template	Thru		Left	Thru	Left	Right				
Leading Detector (ft)	100		20	100	20	20				
Trailing Detector (ft)	0		0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0				
Detector 1 Size(ft)	6		20	6	20	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel										
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0				
Detector 2 Position(ft)	94			94						
Detector 2 Size(ft)	6			6						
Detector 2 Type	Cl+Ex			Cl+Ex						
Detector 2 Channel										
Detector 2 Extend (s)	0.0			0.0						
Turn Type	NA		D.P+P	NA	Prot	pm+ov				
Protected Phases	8		5	5 8	7	5	1	2	3	4
Permitted Phases			8			7				
Detector Phase	8		5	5 8	7	5				
Switch Phase										
Minimum Initial (s)	29.0		4.0		4.0	4.0	24.0	34.0	4.0	4.0
Minimum Split (s)	35.0		10.0		21.0	10.0	30.0	40.0	10.0	10.0

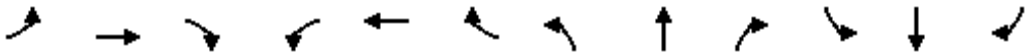


Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Total Split (s)	35.0		26.0		54.0	26.0	69.0	80.0	11.0	35.0
Total Split (%)	30.4%		22.6%		47.0%	22.6%	60%	70%	10%	30%
Maximum Green (s)	29.0		21.0		49.0	21.0	63.0	74.0	5.0	30.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		1.0		1.0	1.0	2.0	2.0	2.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0				
Total Lost Time (s)	6.0		5.0		5.0	5.0				
Lead/Lag			Lead		Lag	Lead	Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	Yes				
Vehicle Extension (s)	4.3		2.5		3.0	2.5	4.3	4.3	2.0	2.5
Minimum Gap (s)	2.2		0.2		3.0	0.2	2.2	2.2	0.2	0.2
Time Before Reduce (s)	30.0		0.0		0.0	0.0	20.0	30.0	0.0	0.0
Time To Reduce (s)	15.0		0.0		0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	Min		None		None	None	Min	C-Min	None	None
Walk Time (s)					5.0					
Flash Dont Walk (s)					11.0					
Pedestrian Calls (#/hr)					0					
Act Effct Green (s)	29.0		35.6	40.6	64.4	75.0				
Actuated g/C Ratio	0.25		0.31	0.35	0.56	0.65				
v/c Ratio	0.26		0.20	0.11	0.10	0.09				
Control Delay	18.3		44.7	42.1	1.8	0.2				
Queue Delay	0.0		0.0	0.0	0.0	0.0				
Total Delay	18.3		44.7	42.1	1.8	0.2				
LOS	B		D	D	A	A				
Approach Delay	18.3			43.4	1.0					
Approach LOS	B			D	A					
Queue Length 50th (ft)	37		50	49	2	0				
Queue Length 95th (ft)	71		m90	m89	6	0				
Internal Link Dist (ft)	717			272	970					
Turn Bay Length (ft)										
Base Capacity (vph)	914		611	907	991	1064				
Starvation Cap Reductn	0		0	0	0	0				
Spillback Cap Reductn	0		0	0	0	0				
Storage Cap Reductn	0		0	0	0	0				
Reduced v/c Ratio	0.26		0.12	0.08	0.10	0.09				

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 69 (60%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 19.2		Intersection LOS: B	
Intersection Capacity Utilization 46.2%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

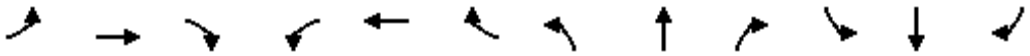
Splits and Phases: 17: Mall Drive 3 & Mall Ring Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1750	13	34	2744	4	0	0	50	31	0	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		200	300		100	0		0	65		0
Storage Lanes	1		1	2		1	0		2	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.850	
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	5085	1583	3433	5085	1583	0	0	2787	1770	1583	0
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	1863	5085	1583	3433	5085	1583	0	0	2787	1770	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			85			28			289		237	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1065			834			318			371	
Travel Time (s)		16.1			12.6			7.2			8.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1842	14	36	2888	4	0	0	53	33	0	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1842	14	36	2888	4	0	0	53	33	27	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1			1	1	1	
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45			45	45	45	
Trailing Detector (ft)	-6	284	-6	-6	284	-6			-6	-6	-6	
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			-6	-6	-6	
Detector 1 Size(ft)	51	51	51	51	51	51			51	51	51	
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA	Perm	Prot	NA	custom			Over	Perm	NA	
Protected Phases	1	7		5	4	2			5		2	
Permitted Phases			7			4				2		
Detector Phase	1	7	7	5	4	2			5	2	2	

Lane Group	ø8	ø9	ø10	ø11
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	8	9	10	11
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	14.0	4.0	14.0	4.0			4.0	4.0	4.0	
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	10.0			10.0	10.0	10.0	
Total Split (s)	10.0	85.0	85.0	10.0	85.0	20.0			10.0	20.0	20.0	
Total Split (%)	8.7%	73.9%	73.9%	8.7%	73.9%	17.4%			8.7%	17.4%	17.4%	
Maximum Green (s)	4.0	79.0	79.0	4.0	79.0	14.0			4.0	14.0	14.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0			6.0	6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	4.3	4.3	2.5	4.3	2.0			2.5	2.0	2.0	
Minimum Gap (s)	0.2	2.2	2.2	0.2	2.2	0.2			0.2	0.2	0.2	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	34.0	0.0			0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	15.0	0.0			0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Min	None			None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		89.3	89.3	6.4	99.5	115.0			6.4	6.9	6.9	
Actuated g/C Ratio		0.78	0.78	0.06	0.87	1.00			0.06	0.06	0.06	
v/c Ratio		0.47	0.01	0.19	0.66	0.00			0.12	0.31	0.09	
Control Delay		4.6	0.0	58.1	9.4	0.0			1.5	58.8	0.5	
Queue Delay		0.0	0.0	0.0	0.6	0.0			0.0	0.0	0.0	
Total Delay		4.6	0.0	58.1	10.0	0.0			1.5	58.8	0.5	
LOS		A	A	E	A	A			A	E	A	
Approach Delay		4.6			10.6						32.6	
Approach LOS		A			B						C	
Queue Length 50th (ft)		171	0	12	710	0			0	24	0	
Queue Length 95th (ft)		167	m0	m14	m755	m0			0	56	0	
Internal Link Dist (ft)		985			754			238			291	
Turn Bay Length (ft)			200	300		100				65		
Base Capacity (vph)		3950	1248	189	4397	1579			426	215	400	
Starvation Cap Reductn		0	0	0	978	0			0	0	0	
Spillback Cap Reductn		0	0	0	0	0			0	0	0	
Storage Cap Reductn		0	0	0	0	0			0	0	0	
Reduced v/c Ratio		0.47	0.01	0.19	0.84	0.00			0.12	0.15	0.07	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 95 (83%), Referenced to phase 4:WBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 8.5		Intersection LOS: A	
Intersection Capacity Utilization 66.4%		ICU Level of Service C	

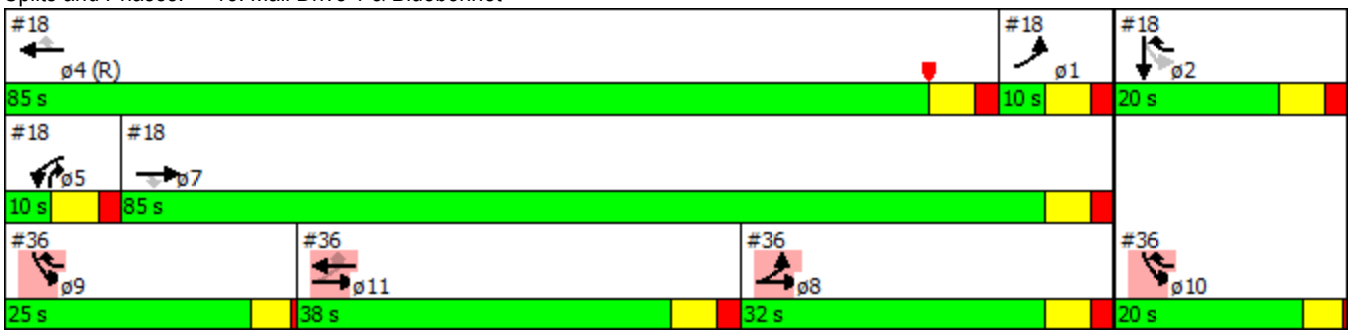
Lane Group	ø8	ø9	ø10	ø11
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	14.0
Minimum Split (s)	22.0	8.0	20.0	20.0
Total Split (s)	32.0	25.0	20.0	38.0
Total Split (%)	28%	22%	17%	33%
Maximum Green (s)	26.0	21.0	16.0	32.0
Yellow Time (s)	4.0	3.5	3.5	4.0
All-Red Time (s)	2.0	0.5	0.5	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	4.3
Minimum Gap (s)	3.0	3.0	3.0	2.2
Time Before Reduce (s)	0.0	0.0	0.0	34.0
Time To Reduce (s)	0.0	0.0	0.0	15.0
Recall Mode	None	None	None	Min
Walk Time (s)	5.0		5.0	
Flash Dont Walk (s)	11.0		11.0	
Pedestrian Calls (#/hr)	0		0	
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

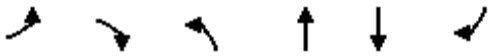
Intersection Summary

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

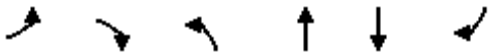
Splits and Phases: 18: Mall Drive 1 & Bluebonnet





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Lane Configurations												
Volume (vph)	35	22	151	24	150	67						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Frt		0.850				0.850						
Flt Protected	0.950		0.950									
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583						
Flt Permitted	0.950		0.645									
Satd. Flow (perm)	1770	1583	1201	1863	1863	1583						
Right Turn on Red		Yes				Yes						
Satd. Flow (RTOR)		24				73						
Link Speed (mph)	30			30	30							
Link Distance (ft)	403			1050	819							
Travel Time (s)	9.2			23.9	18.6							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	38	24	164	26	163	73						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	24	164	26	163	73						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Right	Left	Left	Left	Right						
Median Width(ft)	36			12	0							
Link Offset(ft)	0			0	0							
Crosswalk Width(ft)	16			16	16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15	9	15			9						
Number of Detectors	1	1	1	2	2	1						
Detector Template	Left	Right	Left	Thru	Thru	Right						
Leading Detector (ft)	20	20	20	100	100	20						
Trailing Detector (ft)	0	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0	0						
Detector 1 Size(ft)	20	20	20	6	6	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)				94	94							
Detector 2 Size(ft)				6	6							
Detector 2 Type				Cl+Ex	Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)				0.0	0.0							
Turn Type	Prot	Free	D.P+P	NA	NA	pm+ov						
Protected Phases	12 13		11	11 14	14	12 13	1	2	3	5	6	8
Permitted Phases		Free	14			14						
Detector Phase	12 13		11	11 14	14	12 13						
Switch Phase												
Minimum Initial (s)			4.0		3.0		3.0	3.0	3.0	21.0	3.0	3.0
Minimum Split (s)			10.0		9.0		11.0	9.0	9.0	27.0	11.0	9.0

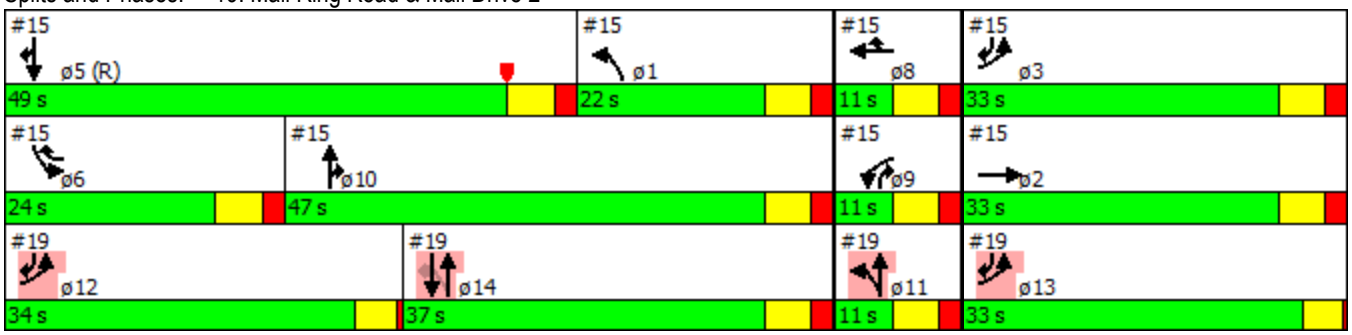
Lane Group	ø9	ø10	ø12	ø13
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	9	10	12	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	21.0	4.0	4.0
Minimum Split (s)	9.0	27.0	20.0	8.0



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Total Split (s)			11.0		37.0		22.0	33.0	33.0	49.0	24.0	11.0
Total Split (%)			9.6%		32.2%		19%	29%	29%	43%	21%	10%
Maximum Green (s)			5.0		31.0		16.0	27.0	27.0	43.0	18.0	5.0
Yellow Time (s)			4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)			2.0		2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0		0.0							
Total Lost Time (s)			6.0		6.0							
Lead/Lag					Lag		Lag			Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0		1.0		3.0	1.0	1.5	4.3	1.0	1.0
Minimum Gap (s)			3.0		0.2		0.2	0.2	0.2	2.2	0.2	0.2
Time Before Reduce (s)			0.0		0.0		0.0	0.0	0.0	28.0	0.0	0.0
Time To Reduce (s)			0.0		0.0		0.0	0.0	0.0	15.0	0.0	0.0
Recall Mode			None		None		None	None	None	C-Min	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	49.5	115.0	52.6	58.6	47.6	98.7						
Actuated g/C Ratio	0.43	1.00	0.46	0.51	0.41	0.86						
v/c Ratio	0.05	0.02	0.29	0.03	0.21	0.05						
Control Delay	62.4	0.0	32.8	28.2	13.1	0.1						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	62.4	0.0	32.8	28.2	13.1	0.1						
LOS	E	A	C	C	B	A						
Approach Delay	38.3			32.2	9.1							
Approach LOS	D			C	A							
Queue Length 50th (ft)	29	0	111	17	22	0						
Queue Length 95th (ft)	63	0	183	46	16	0						
Internal Link Dist (ft)	323			970	739							
Turn Bay Length (ft)												
Base Capacity (vph)	1129	1583	573	961	819	1425						
Starvation Cap Reductn	0	0	0	0	0	0						
Spillback Cap Reductn	0	0	0	0	0	0						
Storage Cap Reductn	0	0	0	0	0	0						
Reduced v/c Ratio	0.03	0.02	0.29	0.03	0.20	0.05						

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 57 (50%), Referenced to phase 5:SBT, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.05			
Intersection Signal Delay: 21.8		Intersection LOS: C	
Intersection Capacity Utilization 32.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 19: Mall Ring Road & Mall Drive 2

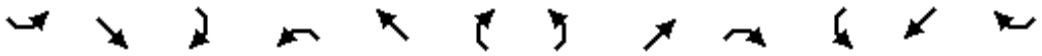


Lane Group	ø9	ø10	ø12	ø13
Total Split (s)	11.0	47.0	34.0	33.0
Total Split (%)	10%	41%	30%	29%
Maximum Green (s)	5.0	41.0	30.0	29.0
Yellow Time (s)	4.0	4.0	3.5	3.5
All-Red Time (s)	2.0	2.0	0.5	0.5
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?			Yes	
Vehicle Extension (s)	1.0	4.3	3.0	3.0
Minimum Gap (s)	0.2	0.2	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Walk Time (s)			5.0	
Flash Dont Walk (s)			11.0	
Pedestrian Calls (#/hr)			0	
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	429	1	1074	0	0	0	0	1752	80	288	1707	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		0	0		0	400		0	300		0
Storage Lanes	1		1	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950	0.953								0.950		
Satd. Flow (prot)	1681	1686	1583	0	0	0	0	6408	1583	1770	3539	0
Flt Permitted	0.950	0.953								0.950		
Satd. Flow (perm)	1681	1686	1583	0	0	0	0	6408	1583	1770	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			465						84			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1072			1024			834			410	
Travel Time (s)		24.4			23.3			12.6			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	452	1	1131	0	0	0	0	1844	84	303	1797	0
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	226	227	1131	0	0	0	0	1844	84	303	1797	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			25	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					2	1	1	2	
Detector Template												
Leading Detector (ft)	45	45	45					290	45	45	290	
Trailing Detector (ft)	-6	-6	-6					284	-6	-6	284	
Detector 1 Position(ft)	-6	-6	-6					-6	-6	-6	-6	
Detector 1 Size(ft)	51	51	51					51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA	Free					NA	Perm	Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2			
Detector Phase	4	4						2	2	1	6	

Lane Group	ø5	ø8
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	5	8
Permitted Phases		
Detector Phase		



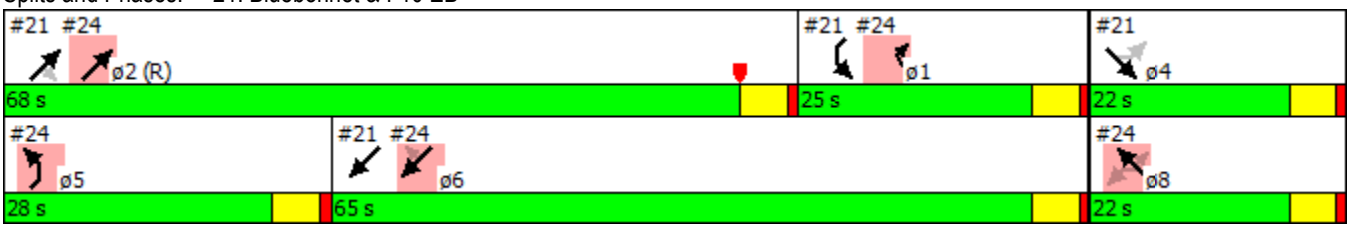
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)	3.0	3.0						10.0	10.0	3.0	10.0	
Minimum Split (s)	20.0	20.0						20.0	20.0	8.0	20.0	
Total Split (s)	22.0	22.0						68.0	68.0	25.0	65.0	
Total Split (%)	19.1%	19.1%						59.1%	59.1%	21.7%	56.5%	
Maximum Green (s)	17.0	17.0						63.0	63.0	20.0	60.0	
Yellow Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0	2.0	2.0	6.0	
Recall Mode	None	None						C-Max	C-Max	None	Max	
Act Effct Green (s)	17.0	17.0	115.0					63.0	63.0	20.0	60.0	
Actuated g/C Ratio	0.15	0.15	1.00					0.55	0.55	0.17	0.52	
v/c Ratio	0.91	0.91	0.71					0.53	0.09	0.99	0.97	
Control Delay	87.2	87.2	2.8					13.8	4.2	69.4	26.3	
Queue Delay	0.0	0.0	0.1					0.1	0.0	0.0	25.3	
Total Delay	87.2	87.2	2.9					13.9	4.2	69.4	51.6	
LOS	F	F	A					B	A	E	D	
Approach Delay		27.0						13.5			54.2	
Approach LOS		C						B			D	
Queue Length 50th (ft)	175	176	0					259	8	226	407	
Queue Length 95th (ft)	#330	#331	0					190	19	m#279	m#824	
Internal Link Dist (ft)		992			944			754			330	
Turn Bay Length (ft)	375									300		
Base Capacity (vph)	248	249	1583					3510	905	307	1846	
Starvation Cap Reductn	0	0	0					0	0	0	152	
Spillback Cap Reductn	0	0	53					300	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.91	0.91	0.74					0.57	0.09	0.99	1.06	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 0 (0%), Referenced to phase 2:NET, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.09			
Intersection Signal Delay: 32.5		Intersection LOS: C	
Intersection Capacity Utilization 96.6%		ICU Level of Service F	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: Bluebonnet & I-10 EB

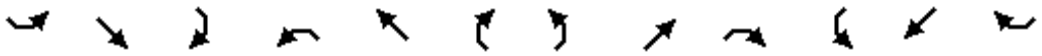


Lane Group	ø5	ø8
Switch Phase		
Minimum Initial (s)	3.0	3.0
Minimum Split (s)	8.0	20.0
Total Split (s)	28.0	22.0
Total Split (%)	24%	19%
Maximum Green (s)	23.0	17.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?		
Vehicle Extension (s)	3.5	2.0
Recall Mode	Max	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	0	0	443	4	643	429	1752	0	0	1552	265
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		525	300		0	0		575
Storage Lanes	0		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt						0.850						0.850
Flt Protected				0.950	0.953		0.950					
Satd. Flow (prot)	0	0	0	1681	1686	1583	3433	3539	0	0	3539	1583
Flt Permitted				0.950	0.953		0.950					
Satd. Flow (perm)	0	0	0	1681	1686	1583	3433	3539	0	0	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						66						279
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		894			1008			410			866	
Travel Time (s)		20.3			22.9			6.2			13.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	466	4	677	452	1844	0	0	1634	279
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	0	0	233	237	677	452	1844	0	0	1634	279
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			40			50	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			2	1
Detector Template												
Leading Detector (ft)				45	45	45	45	290			290	45
Trailing Detector (ft)				-6	-6	-6	-6	284			284	-6
Detector 1 Position(ft)				-6	-6	-6	-6	-6			-6	-6
Detector 1 Size(ft)				51	51	51	51	51			51	51
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call			Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type				Perm	NA	custom	Prot	NA			NA	Perm
Protected Phases					8	1	5	2			6	
Permitted Phases				8		8						6
Detector Phase				8	8	1	5	2			6	6

Lane Group	ø4
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)				3.0	3.0	3.0	3.0	10.0			10.0	10.0
Minimum Split (s)				20.0	20.0	8.0	8.0	20.0			20.0	20.0
Total Split (s)				22.0	22.0	25.0	28.0	68.0			65.0	65.0
Total Split (%)				19.1%	19.1%	21.7%	24.3%	59.1%			56.5%	56.5%
Maximum Green (s)				17.0	17.0	20.0	23.0	63.0			60.0	60.0
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
All-Red Time (s)				1.0	1.0	1.0	1.0	1.0			1.0	1.0
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)				5.0	5.0	5.0	5.0	5.0			5.0	5.0
Lead/Lag						Lag	Lead	Lead			Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0	2.0	3.5	2.0			6.0	6.0
Recall Mode				None	None	None	Max	C-Max			Max	Max
Act Effct Green (s)				17.0	17.0	42.0	23.0	63.0			60.0	60.0
Actuated g/C Ratio				0.15	0.15	0.37	0.20	0.55			0.52	0.52
v/c Ratio				0.94	0.95	1.09	0.66	0.95			0.89	0.29
Control Delay				92.7	95.2	96.1	41.6	24.4			20.0	1.5
Queue Delay				0.0	0.0	0.0	0.0	0.0			6.9	0.0
Total Delay				92.7	95.2	96.1	41.6	24.4			27.0	1.5
LOS				F	F	F	D	C			C	A
Approach Delay					95.2			27.8			23.2	
Approach LOS					F			C			C	
Queue Length 50th (ft)				182	185	~534	110	764			588	6
Queue Length 95th (ft)				#344	#351	#765	m153	#875			568	m13
Internal Link Dist (ft)		814			928			330			786	
Turn Bay Length (ft)						525	300					575
Base Capacity (vph)				248	249	620	686	1938			1846	959
Starvation Cap Reductn				0	0	0	0	0			0	0
Spillback Cap Reductn				0	0	0	0	0			187	0
Storage Cap Reductn				0	0	0	0	0			0	0
Reduced v/c Ratio				0.94	0.95	1.09	0.66	0.95			0.98	0.29

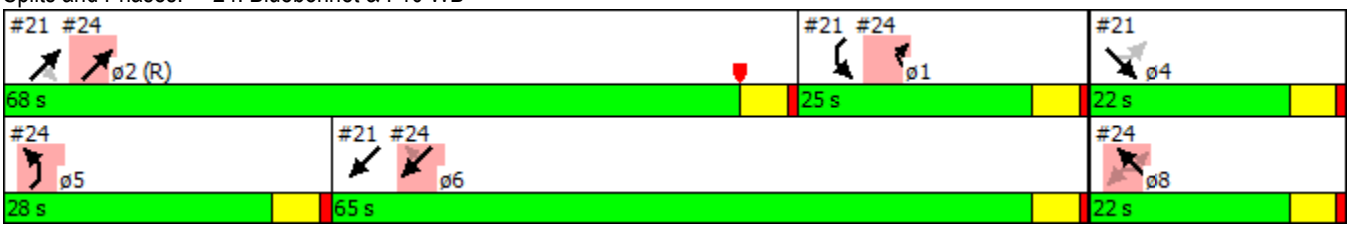
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 0 (0%), Referenced to phase 2:NET, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.09			
Intersection Signal Delay: 40.6		Intersection LOS: D	
Intersection Capacity Utilization 96.6%		ICU Level of Service F	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

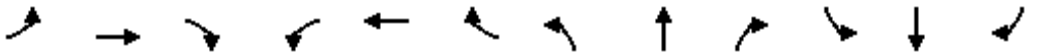
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 24: Bluebonnet & I-10 WB

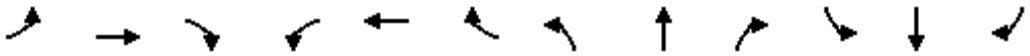


Lane Group	ø4
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	20.0
Total Split (s)	22.0
Total Split (%)	19%
Maximum Green (s)	17.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	32	17	269	9	24	87	1665	643	287	1531	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		200	300		175	175		175
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.948			0.925	0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3355	0	3433	1637	1504	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.086			0.062		
Satd. Flow (perm)	1770	3355	0	3433	1637	1504	160	3539	1583	115	3539	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		18										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		475			1072			866			1049	
Travel Time (s)		10.8			24.4			13.1			15.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	46	34	18	283	9	25	92	1753	677	302	1612	57
Shared Lane Traffic (%)						35%						
Lane Group Flow (vph)	46	52	0	283	18	16	92	1753	677	302	1612	57
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		60			60			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4		3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases							2			6		
Detector Phase	7	4		3	8	8 1	5	2	2 3	1	6	6 7



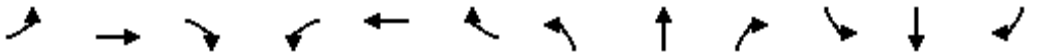
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	5.0		5.0	3.0		3.0	20.0		5.0	20.0	
Minimum Split (s)	8.9	10.9		10.9	8.9		9.6	26.6		11.6	26.6	
Total Split (s)	13.0	11.0		17.0	15.0		14.0	65.0		22.0	73.0	
Total Split (%)	11.3%	9.6%		14.8%	13.0%		12.2%	56.5%		19.1%	63.5%	
Maximum Green (s)	7.1	5.1		11.1	9.1		7.4	58.4		15.4	66.4	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	0.9	0.9		0.9	0.9		1.6	1.6		1.6	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.9	5.9		5.9	5.9		6.6	6.6		6.6	6.6	
Lead/Lag	Lead	Lead		Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		2.5	1.5		1.5	5.0		1.5	5.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	9.5	5.1		11.2	8.6	30.2	65.8	59.8	71.6	82.6	70.0	85.4
Actuated g/C Ratio	0.08	0.04		0.10	0.07	0.26	0.57	0.52	0.62	0.72	0.61	0.74
v/c Ratio	0.32	0.32		0.85	0.15	0.04	0.53	0.95	0.69	0.96	0.75	0.05
Control Delay	56.8	43.7		74.5	52.5	31.5	16.0	21.5	6.1	76.4	11.3	2.2
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.8	43.7		74.5	52.5	31.5	16.0	21.5	6.1	76.4	11.3	2.2
LOS	E	D		E	D	C	B	C	A	E	B	A
Approach Delay		49.8			71.1			17.2			21.0	
Approach LOS		D			E			B			C	
Queue Length 50th (ft)	33	13		108	13	9	10	564	126	~158	468	5
Queue Length 95th (ft)	73	34		#181	38	28	m12	m566	m123	#368	200	m9
Internal Link Dist (ft)		395			992			786			969	
Turn Bay Length (ft)	75			200		200	300		175	175		175
Base Capacity (vph)	155	165		333	135	406	197	1840	985	315	2153	1183
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.32		0.85	0.13	0.04	0.47	0.95	0.69	0.96	0.75	0.05

Intersection Summary

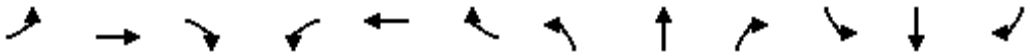
Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 115
Offset: 12 (10%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 22.8 Intersection LOS: C
Intersection Capacity Utilization 92.2% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 27: Bluebonnet & Blue Cross



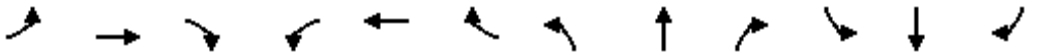
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	22	1	23	30	2	7	9	1698	26	1	1819	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		130	150		185
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.932			0.977				0.850			0.850
Flt Protected		0.977			0.962		0.950			0.950		
Satd. Flow (prot)	0	1696	0	0	1751	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.827			0.834		0.092			0.109		
Satd. Flow (perm)	0	1436	0	0	1518	0	171	3539	1583	203	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			7				28			28
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1129			1330			1049			1811	
Travel Time (s)		25.7			30.2			15.9			27.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	23	1	24	32	2	7	9	1787	27	1	1915	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	41	0	9	1787	27	1	1915	4
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



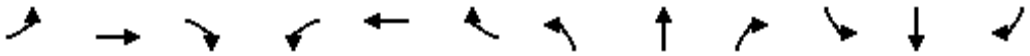
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	11.0	11.0		11.0	11.0		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	25.0	25.0		25.0	25.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	21.7%	21.7%		21.7%	21.7%		78.3%	78.3%	78.3%	78.3%	78.3%	78.3%
Maximum Green (s)	19.0	19.0		19.0	19.0		84.0	84.0	84.0	84.0	84.0	84.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		8.1			8.1		98.3	98.3	98.3	98.3	98.3	98.3
Actuated g/C Ratio		0.07			0.07		0.85	0.85	0.85	0.85	0.85	0.85
v/c Ratio		0.39			0.36		0.06	0.59	0.02	0.01	0.63	0.00
Control Delay		39.1			52.1		1.4	4.5	0.3	4.0	8.7	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		39.1			52.1		1.4	4.5	0.3	4.0	8.7	0.0
LOS		D			D		A	A	A	A	A	A
Approach Delay		39.1			52.1			4.4			8.7	
Approach LOS		D			D			A			A	
Queue Length 50th (ft)		17			24		2	206	1	0	380	0
Queue Length 95th (ft)		55			59		m0	m22	m0	m0	668	m0
Internal Link Dist (ft)		1049			1250			969			1731	
Turn Bay Length (ft)							150		130	150		185
Base Capacity (vph)		257			256		146	3026	1357	173	3026	1357
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.19			0.16		0.06	0.59	0.02	0.01	0.63	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 33 (29%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 7.5		Intersection LOS: A	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 30: Bluebonnet & Gail



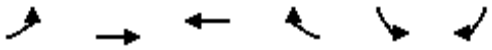
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	7	74	32	2	22	73	1636	18	6	1717	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.893			0.947				0.850			0.850
Flt Protected		0.993			0.972		0.950			0.950		
Satd. Flow (prot)	0	1652	0	0	1715	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.953			0.705		0.100			0.113		
Satd. Flow (perm)	0	1585	0	0	1244	0	186	3539	1583	210	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			23				30			30
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1794			2049			1811			2409	
Travel Time (s)		40.8			46.6			27.4			36.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	13	7	78	34	2	23	77	1722	19	6	1807	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	98	0	0	59	0	77	1722	19	6	1807	27
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	9.2	9.2		9.2	9.2		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	34.0	34.0		34.0	34.0		81.0	81.0	81.0	81.0	81.0	81.0
Total Split (%)	29.6%	29.6%		29.6%	29.6%		70.4%	70.4%	70.4%	70.4%	70.4%	70.4%
Maximum Green (s)	27.8	27.8		27.8	27.8		75.0	75.0	75.0	75.0	75.0	75.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.2	1.2		1.2	1.2		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.2			6.2		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		10.4			10.4		92.4	92.4	92.4	92.4	92.4	92.4
Actuated g/C Ratio		0.09			0.09		0.80	0.80	0.80	0.80	0.80	0.80
v/c Ratio		0.59			0.44		0.52	0.61	0.01	0.04	0.64	0.02
Control Delay		50.9			42.5		15.3	1.7	0.1	3.7	6.2	1.0
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		50.9			42.5		15.3	1.7	0.1	3.7	6.2	1.0
LOS		D			D		B	A	A	A	A	A
Approach Delay		50.9			42.5			2.2			6.1	
Approach LOS		D			D			A			A	
Queue Length 50th (ft)		52			25		0	2	0	1	224	0
Queue Length 95th (ft)		104			66		m22	28	m0	5	355	6
Internal Link Dist (ft)		1714			1969			1731			2329	
Turn Bay Length (ft)							150		150	150		150
Base Capacity (vph)		402			318		149	2843	1277	168	2843	1277
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.24			0.19		0.52	0.61	0.01	0.04	0.64	0.02

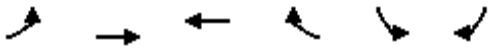
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 86 (75%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 6.0		Intersection LOS: A	
Intersection Capacity Utilization 80.7%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 33: Bluebonnet & Oliphant



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Lane Configurations												
Volume (vph)	17	42	198	33	28	19						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.95						
Frt				0.850	0.938							
Flt Protected	0.950				0.971							
Satd. Flow (prot)	1770	1863	1863	1583	3291	0						
Flt Permitted	0.393				0.971							
Satd. Flow (perm)	732	1863	1863	1583	3291	0						
Right Turn on Red				Yes		Yes						
Satd. Flow (RTOR)				36	21							
Link Speed (mph)		30	30		30							
Link Distance (ft)		819	802		318							
Travel Time (s)		18.6	18.2		7.2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	18	46	215	36	30	21						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	46	215	36	51	0						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Right	Left	Right						
Median Width(ft)		12	0		36							
Link Offset(ft)		0	0		0							
Crosswalk Width(ft)		16	16		16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15			9	15	9						
Number of Detectors	1	2	2	1	1							
Detector Template	Left	Thru	Thru	Right	Left							
Leading Detector (ft)	20	100	100	20	20							
Trailing Detector (ft)	0	0	0	0	0							
Detector 1 Position(ft)	0	0	0	0	0							
Detector 1 Size(ft)	20	6	6	20	20							
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex							
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0							
Detector 2 Position(ft)		94	94									
Detector 2 Size(ft)		6	6									
Detector 2 Type		Cl+Ex	Cl+Ex									
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0									
Turn Type	D.P+P	NA	NA	pm+ov	Prot							
Protected Phases	8	8 11	11	9 10	9 10		1	2	4	5	7	9
Permitted Phases	11			11								
Detector Phase	8	8 11	11	9 10	9 10							
Switch Phase												
Minimum Initial (s)	4.0		14.0				4.0	4.0	14.0	4.0	14.0	4.0
Minimum Split (s)	22.0		20.0				10.0	10.0	20.0	10.0	20.0	8.0

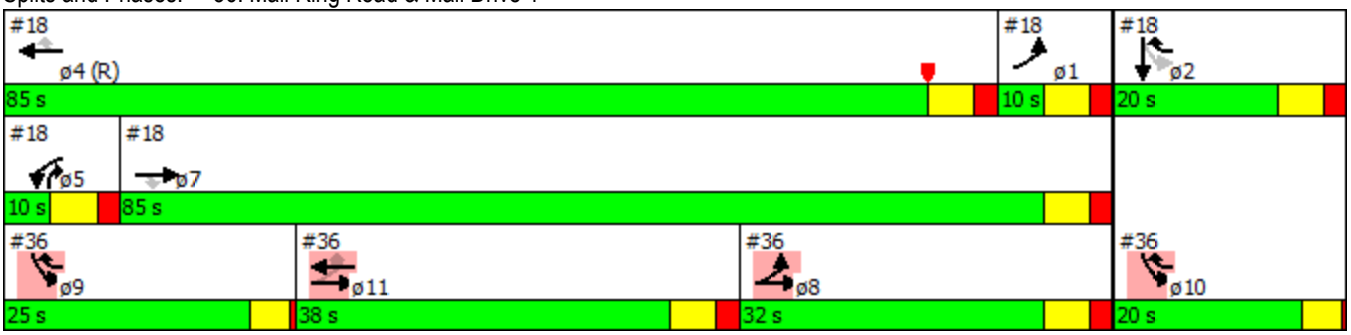
Lane Group	ø10
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	10
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	20.0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Total Split (s)	32.0		38.0				10.0	20.0	85.0	10.0	85.0	25.0
Total Split (%)	27.8%		33.0%				9%	17%	74%	9%	74%	22%
Maximum Green (s)	26.0		32.0				4.0	14.0	79.0	4.0	79.0	21.0
Yellow Time (s)	4.0		4.0				4.0	4.0	4.0	4.0	4.0	3.5
All-Red Time (s)	2.0		2.0				2.0	2.0	2.0	2.0	2.0	0.5
Lost Time Adjust (s)	0.0		0.0									
Total Lost Time (s)	6.0		6.0									
Lead/Lag			Lag				Lag		Lead	Lead	Lag	Lead
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0		4.3				2.5	2.0	4.3	2.5	4.3	3.0
Minimum Gap (s)	3.0		2.2				0.2	0.2	2.2	0.2	2.2	3.0
Time Before Reduce (s)	0.0		34.0				0.0	0.0	34.0	0.0	0.0	0.0
Time To Reduce (s)	0.0		15.0				0.0	0.0	15.0	0.0	0.0	0.0
Recall Mode	None		Min				None	None	C-Min	None	None	None
Walk Time (s)	5.0											
Flash Dont Walk (s)	11.0											
Pedestrian Calls (#/hr)	0											
Act Effct Green (s)	84.6	91.8	19.0	39.4	16.3							
Actuated g/C Ratio	0.74	0.80	0.17	0.34	0.14							
v/c Ratio	0.02	0.03	0.70	0.06	0.11							
Control Delay	1.8	1.5	56.5	6.0	64.6							
Queue Delay	0.0	0.0	0.0	0.0	0.0							
Total Delay	1.8	1.5	56.5	6.0	64.6							
LOS	A	A	E	A	E							
Approach Delay		1.6	49.2		64.6							
Approach LOS		A	D		E							
Queue Length 50th (ft)	0	1	151	0	13							
Queue Length 95th (ft)	1	1	216	18	35							
Internal Link Dist (ft)		739	722		238							
Turn Bay Length (ft)												
Base Capacity (vph)	1130	1485	518	592	923							
Starvation Cap Reductn	0	0	0	0	0							
Spillback Cap Reductn	0	0	0	0	0							
Storage Cap Reductn	0	0	0	0	0							
Reduced v/c Ratio	0.02	0.03	0.42	0.06	0.06							

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 95 (83%), Referenced to phase 4:WBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 43.0		Intersection LOS: D	
Intersection Capacity Utilization 25.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 36: Mall Ring Road & Mall Drive 1

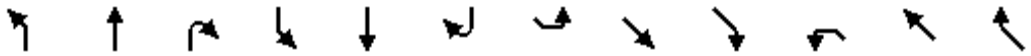


Lane Group	ø10
Total Split (s)	20.0
Total Split (%)	17%
Maximum Green (s)	16.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Minimum Gap (s)	3.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

M.27 2037 NO BUILD NOON – ESSEN LANE

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	236	628	88	380	940	419	515	879	135	173	1172	331
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	800		0	300		0	150		0
Storage Lanes	1		0	1		1	2		0	1		0
Taper Length (ft)	150			25			200			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Frt		0.982				0.850		0.980			0.967	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3476	0	1770	3539	1583	3433	3468	0	1770	3422	0
Flt Permitted	0.137			0.114			0.950			0.950		
Satd. Flow (perm)	255	3476	0	212	3539	1583	3433	3468	0	1770	3422	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9				265		13			27	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1877			1475			2128			1788	
Travel Time (s)		28.4			22.3			32.2			27.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	257	683	96	413	1022	455	560	955	147	188	1274	360
Shared Lane Traffic (%)												
Lane Group Flow (vph)	257	779	0	413	1022	455	560	1102	0	188	1634	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	0	1	1		1	1	
Detector Template												
Leading Detector (ft)	45	162		45	162	0	45	45		45	45	
Trailing Detector (ft)	0	156		0	156	0	0	0		0	0	
Detector 1 Position(ft)	0	-6		0	-6	0	0	0		0	0	
Detector 1 Size(ft)	45	51		45	51	50	45	45		45	45	
Detector 1 Type	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2		2						
Detector Phase	1	6		5	2	2	3	8		7	4	



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	5.0	10.0		3.0	10.0	
Minimum Split (s)	8.8	15.8		8.8	15.8	15.8	11.5	16.5		9.5	16.5	
Total Split (s)	18.0	35.0		29.0	46.0	46.0	26.0	58.8		27.2	60.0	
Total Split (%)	12.0%	23.3%		19.3%	30.7%	30.7%	17.3%	39.2%		18.1%	40.0%	
Maximum Green (s)	12.2	29.2		23.2	40.2	40.2	19.5	52.3		20.7	53.5	
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8	5.5	5.5		5.5	5.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8		5.8	5.8	5.8	6.5	6.5		6.5	6.5	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	6.0		2.0	6.0	6.0	2.0	6.0		2.0	6.0	
Minimum Gap (s)	0.2	4.0		0.2	4.0	4.0	0.2	4.0		0.2	4.0	
Time Before Reduce (s)	0.0	20.0		0.0	20.0	20.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	
Act Effct Green (s)	41.4	29.2		58.2	40.2	40.2	19.5	52.0		21.0	53.5	
Actuated g/C Ratio	0.28	0.19		0.39	0.27	0.27	0.13	0.35		0.14	0.36	
v/c Ratio	1.33	1.14		1.28	1.08	0.74	1.26	0.91		0.76	1.32	
Control Delay	213.8	132.2		184.6	103.6	28.1	183.2	58.0		82.0	188.2	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	213.8	132.2		184.6	103.6	28.1	183.2	58.0		82.0	188.2	
LOS	F	F		F	F	C	F	E		F	F	
Approach Delay		152.4			103.1			100.2			177.3	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~275	~464		~461	~584	177	~352	534		180	~1080	
Queue Length 95th (ft)	#460	#599		#679	#723	318	#473	#647		#296	#1220	
Internal Link Dist (ft)		1797			1395			2048			1708	
Turn Bay Length (ft)	250			800			300			150		
Base Capacity (vph)	193	683		323	948	618	446	1217		247	1237	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	1.33	1.14		1.28	1.08	0.74	1.26	0.91		0.76	1.32	

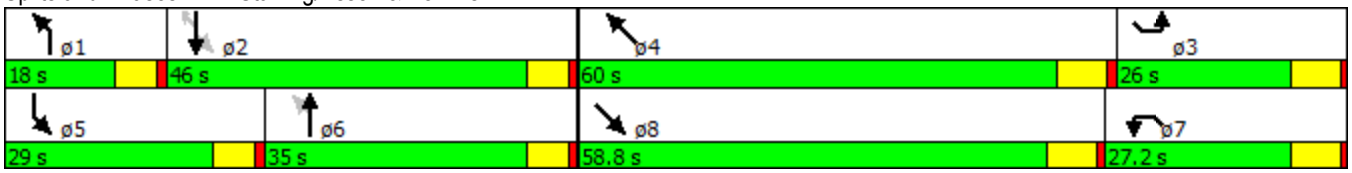
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.33			
Intersection Signal Delay: 131.4		Intersection LOS: F	
Intersection Capacity Utilization 119.4%		ICU Level of Service H	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Starring/Essen & Perkins



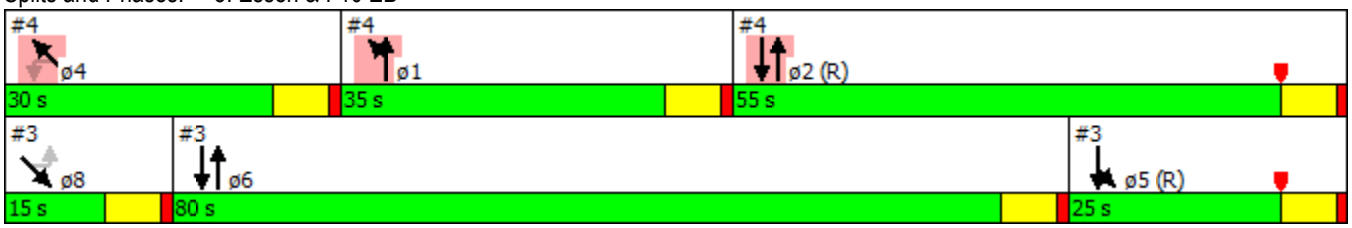
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	0	2051	512	365	1480	0	13	0	1006	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		0	0		800	0		0
Storage Lanes	1		0	2		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.86	0.86	0.97	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt		0.970							0.850			
Flt Protected				0.950			0.950	0.950				
Satd. Flow (prot)	0	6216	0	3433	3539	0	1681	1681	1583	0	0	0
Flt Permitted				0.950			0.950	0.950				
Satd. Flow (perm)	0	6216	0	3433	3539	0	1681	1681	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		98							245			
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		721			409			1012			1106	
Travel Time (s)		10.9			6.2			23.0			25.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	2229	557	397	1609	0	14	0	1093	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	0	2786	0	397	1609	0	7	7	1093	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2		1	1	0			
Detector Template							Left					
Leading Detector (ft)		162		45	162		20	45	0			
Trailing Detector (ft)		156		0	156		0	0	0			
Detector 1 Position(ft)		-6		0	-6		0	0	0			
Detector 1 Size(ft)		51		45	51		20	45	20			
Detector 1 Type		Call		Cl+Ex	Call		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Queue (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Delay (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA		Prot	NA		Perm	NA	Free			
Protected Phases		6		5	5 6			8				
Permitted Phases							8		Free			
Detector Phase		6		5	5 6		8	8				

Lane Group	ø1	ø2	ø4
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	1	2	4
Permitted Phases			
Detector Phase			

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)		10.0		3.0			3.0	3.0				
Minimum Split (s)		16.0		9.0			9.0	9.0				
Total Split (s)		80.0		25.0			15.0	15.0				
Total Split (%)		66.7%		20.8%			12.5%	12.5%				
Maximum Green (s)		74.0		19.0			9.0	9.0				
Yellow Time (s)		5.0		5.0			5.0	5.0				
All-Red Time (s)		1.0		1.0			1.0	1.0				
Lost Time Adjust (s)		0.0		0.0			0.0	0.0				
Total Lost Time (s)		6.0		6.0			6.0	6.0				
Lead/Lag		Lag					Lead	Lead				
Lead-Lag Optimize?		Yes					Yes	Yes				
Vehicle Extension (s)		4.0		2.5			2.0	2.0				
Minimum Gap (s)		2.0		0.2			0.2	0.2				
Time Before Reduce (s)		10.0		0.0			0.0	0.0				
Time To Reduce (s)		20.0		0.0			0.0	0.0				
Recall Mode		None		C-Max			Max	Max				
Act Effct Green (s)		69.0		24.0	99.0		9.0	9.0	120.0			
Actuated g/C Ratio		0.58		0.20	0.82		0.08	0.08	1.00			
v/c Ratio		0.77		0.58	0.55		0.06	0.06	0.69			
Control Delay		19.4		29.4	9.0		52.8	52.8	2.5			
Queue Delay		0.7		0.0	0.7		0.0	0.0	0.0			
Total Delay		20.1		29.4	9.7		52.8	52.8	2.5			
LOS		C		C	A		D	D	A			
Approach Delay		20.1			13.6			3.1				
Approach LOS		C			B			A				
Queue Length 50th (ft)		650		153	174		5	5	0			
Queue Length 95th (ft)		342		200	223		22	22	0			
Internal Link Dist (ft)		641			329			932			1026	
Turn Bay Length (ft)									800			
Base Capacity (vph)		3870		686	2881		126	126	1583			
Starvation Cap Reductn		637		0	818		0	0	0			
Spillback Cap Reductn		87		0	0		0	0	0			
Storage Cap Reductn		0		0	0		0	0	0			
Reduced v/c Ratio		0.86		0.58	0.78		0.06	0.06	0.69			

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 36 (30%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 14.7		Intersection LOS: B	
Intersection Capacity Utilization 67.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Essen & I-10 EB

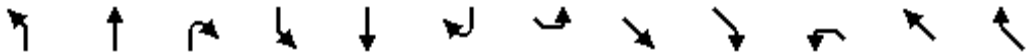


Lane Group	ø1	ø2	ø4
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	35.0	55.0	30.0
Total Split (%)	29%	46%	25%
Maximum Green (s)	29.0	49.0	24.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes
Vehicle Extension (s)	2.5	4.0	4.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	None	C-Max	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	543	1521	0	0	1618	82	0	0	0	227	0	305
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	550		200	0		0	750		0
Storage Lanes	2		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.86	0.86	1.00	1.00	1.00	0.95	0.95	1.00
Frt					0.993							0.850
Flt Protected	0.950									0.950	0.950	
Satd. Flow (prot)	3433	3539	0	0	6363	0	0	0	0	1681	1681	1583
Flt Permitted	0.950									0.950	0.950	
Satd. Flow (perm)	3433	3539	0	0	6363	0	0	0	0	1681	1681	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10							255
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		409			805			936			1390	
Travel Time (s)		6.2			12.2			21.3			31.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	590	1653	0	0	1759	89	0	0	0	247	0	332
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	590	1653	0	0	1848	0	0	0	0	123	124	332
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			20			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2					1	1	0
Detector Template										Left		
Leading Detector (ft)	45	162			162					20	45	0
Trailing Detector (ft)	0	156			156					0	0	0
Detector 1 Position(ft)	0	-6			-6					0	0	0
Detector 1 Size(ft)	45	51			51					20	45	20
Detector 1 Type	Cl+Ex	Call			Call					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA			NA					Perm	NA	Free
Protected Phases	1	1 2			2						4	
Permitted Phases										4		Free
Detector Phase	1	1 2			2					4	4	

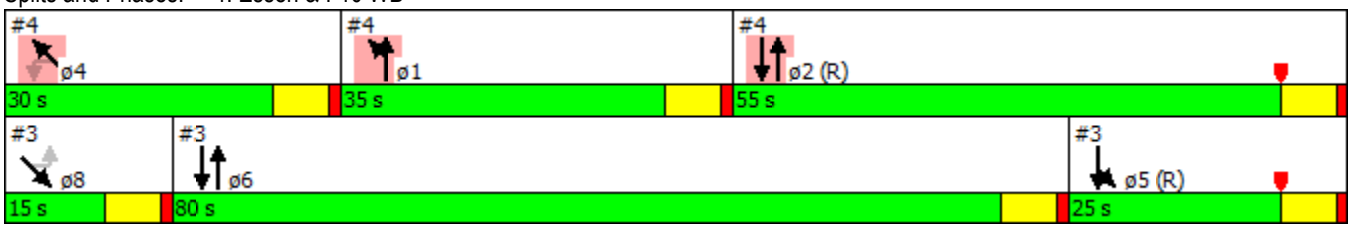
Lane Group	ø5	ø6	ø8
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	5	6	8
Permitted Phases			
Detector Phase			



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0				10.0					3.0	3.0	
Minimum Split (s)	9.0				16.0					9.0	9.0	
Total Split (s)	35.0				55.0					30.0	30.0	
Total Split (%)	29.2%				45.8%					25.0%	25.0%	
Maximum Green (s)	29.0				49.0					24.0	24.0	
Yellow Time (s)	5.0				5.0					5.0	5.0	
All-Red Time (s)	1.0				1.0					1.0	1.0	
Lost Time Adjust (s)	0.0				0.0					0.0	0.0	
Total Lost Time (s)	6.0				6.0					6.0	6.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?	Yes									Yes	Yes	
Vehicle Extension (s)	2.5				4.0					4.0	4.0	
Minimum Gap (s)	0.2				2.0					0.2	0.2	
Time Before Reduce (s)	0.0				10.0					0.0	0.0	
Time To Reduce (s)	0.0				20.0					0.0	0.0	
Recall Mode	None				C-Max					None	None	
Act Effct Green (s)	30.9	92.9			56.0					15.1	15.1	120.0
Actuated g/C Ratio	0.26	0.77			0.47					0.13	0.13	1.00
v/c Ratio	0.67	0.60			0.62					0.58	0.59	0.21
Control Delay	37.6	3.8			21.9					60.0	60.3	0.3
Queue Delay	0.8	0.6			0.0					0.0	0.0	0.0
Total Delay	38.4	4.4			21.9					60.0	60.3	0.3
LOS	D	A			C					E	E	A
Approach Delay		13.4			21.9						25.8	
Approach LOS		B			C						C	
Queue Length 50th (ft)	99	5			192					95	96	0
Queue Length 95th (ft)	198	774			318					155	156	0
Internal Link Dist (ft)		329			725			856			1310	
Turn Bay Length (ft)										750		
Base Capacity (vph)	922	2740			2976					336	336	1583
Starvation Cap Reductn	117	619			0					0	0	0
Spillback Cap Reductn	0	0			0					0	0	0
Storage Cap Reductn	0	0			0					0	0	0
Reduced v/c Ratio	0.73	0.78			0.62					0.37	0.37	0.21

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 36 (30%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 18.3		Intersection LOS: B	
Intersection Capacity Utilization 67.0%		ICU Level of Service C	
Analysis Period (min) 15			

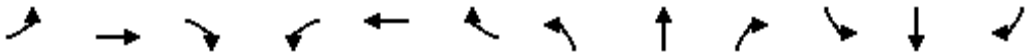
Splits and Phases: 4: Essen & I-10 WB



Lane Group	ø5	ø6	ø8
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	25.0	80.0	15.0
Total Split (%)	21%	67%	13%
Maximum Green (s)	19.0	74.0	9.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lead
Lead-Lag Optimize?		Yes	Yes
Vehicle Extension (s)	2.5	4.0	2.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	C-Max	None	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

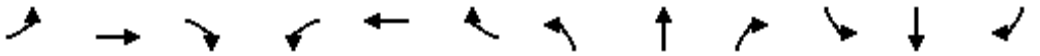
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	78	1	56	31	0	144	23	2405	23	123	2310	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	300		0	150		200	200		0
Storage Lanes	1		0	0		1	1		1	1		0
Taper Length (ft)	25			25			100			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Frt		0.852				0.850			0.850		0.996	
Flt Protected	0.950				0.950		0.950			0.950		
Satd. Flow (prot)	1770	1587	0	0	1770	1583	1770	5085	1583	1770	5065	0
Flt Permitted	0.735				0.717		0.950			0.950		
Satd. Flow (perm)	1369	1587	0	0	1336	1583	1770	5085	1583	1770	5065	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		61							82		8	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		421			896			892			230	
Travel Time (s)		9.6			20.4			13.5			3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	85	1	61	34	0	157	25	2614	25	134	2511	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	85	62	0	0	34	157	25	2614	25	134	2581	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left		Right			Right			
Leading Detector (ft)	45	45		20	45	20	45	162	20	45	162	
Trailing Detector (ft)	0	0		0	0	0	0	156	0	0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6	0	0	-6	
Detector 1 Size(ft)	45	45		20	45	20	45	51	20	45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA	pt+ov	Prot	NA	Perm	Prot	NA	
Protected Phases		8			4	4 5	1	6		5	2	
Permitted Phases	8			4					6			
Detector Phase	8	8		4	4	4 5	1	6	6	5	2	



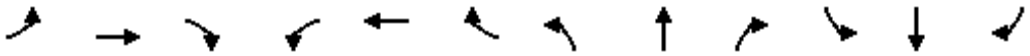
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	15.0	15.0	3.0	15.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	21.0	21.0	11.0	21.0	
Total Split (s)	20.0	20.0		20.0	20.0		12.0	69.0	69.0	31.0	88.0	
Total Split (%)	16.7%	16.7%		16.7%	16.7%		10.0%	57.5%	57.5%	25.8%	73.3%	
Maximum Green (s)	14.0	14.0		14.0	14.0		6.0	63.0	63.0	25.0	82.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0	6.0	6.0	6.0	
Lead/Lag							Lag	Lag	Lag	Lead	Lead	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.5	2.5	2.0	2.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0	2.0	0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0	10.0	0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0	20.0	0.0	20.0	
Recall Mode	None	None		None	None		None	Min	Min	None	C-Min	
Act Effct Green (s)	12.3	12.3			12.3	31.8	5.5	76.2	76.2	13.5	90.9	
Actuated g/C Ratio	0.10	0.10			0.10	0.26	0.05	0.64	0.64	0.11	0.76	
v/c Ratio	0.61	0.29			0.25	0.38	0.31	0.81	0.02	0.68	0.67	
Control Delay	69.6	15.9			53.4	37.4	49.9	12.3	0.3	72.5	6.2	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.3	0.0	0.0	0.0	
Total Delay	69.6	15.9			53.4	37.4	49.9	12.5	0.3	72.5	6.2	
LOS	E	B			D	D	D	B	A	E	A	
Approach Delay		46.9			40.2			12.8			9.5	
Approach LOS		D			D			B			A	
Queue Length 50th (ft)	63	1			24	98	18	353	0	108	110	
Queue Length 95th (ft)	118	43			58	150	m20	m387	m0	m169	263	
Internal Link Dist (ft)		341			816			812			150	
Turn Bay Length (ft)	200						150		200	200		
Base Capacity (vph)	159	239			155	561	88	3230	1035	368	3838	
Starvation Cap Reductn	0	0			0	0	0	0	0	0	87	
Spillback Cap Reductn	0	0			0	0	0	149	0	0	0	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.53	0.26			0.22	0.28	0.28	0.85	0.02	0.36	0.69	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 70 (58%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 13.0		Intersection LOS: B	
Intersection Capacity Utilization 79.3%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Essen & Margaret Ann



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	6	6	70	6	66	1	2489	107	84	2391	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	100		0	350		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			150		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.961				0.850		0.994			0.999	
Flt Protected		0.980			0.956		0.950			0.950		
Satd. Flow (prot)	0	1754	0	0	1781	1583	1770	5055	0	1770	5080	0
Flt Permitted		0.847			0.727		0.950			0.950		
Satd. Flow (perm)	0	1516	0	0	1354	1583	1770	5055	0	1770	5080	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		7						10			1	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		496			1336			449			721	
Travel Time (s)		11.3			30.4			6.8			10.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	7	7	76	7	72	1	2705	116	91	2599	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	24	0	0	83	72	1	2821	0	91	2612	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45	45	20	144		45	162	
Trailing Detector (ft)	0	0		0	0	0	0	138		0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	20	45		20	45	45	20	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								138			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases		8			4	4 5	1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4	4 5	1	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		4.0	15.0		3.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	21.0		9.0	21.0	
Total Split (s)	21.0	21.0		21.0	21.0		11.0	81.0		18.0	88.0	
Total Split (%)	17.5%	17.5%		17.5%	17.5%		9.2%	67.5%		15.0%	73.3%	
Maximum Green (s)	15.0	15.0		15.0	15.0		5.0	75.0		12.0	82.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		3.0	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)		11.2			11.2	27.1	5.4	80.9		9.9	94.6	
Actuated g/C Ratio		0.09			0.09	0.23	0.04	0.67		0.08	0.79	
v/c Ratio		0.16			0.66	0.20	0.01	0.83		0.63	0.65	
Control Delay		40.0			75.4	37.1	51.0	8.1		75.3	5.1	
Queue Delay		0.0			0.0	0.0	0.0	0.6		0.0	0.1	
Total Delay		40.0			75.4	37.1	51.0	8.8		75.3	5.2	
LOS		D			E	D	D	A		E	A	
Approach Delay		40.0			57.6			8.8			7.6	
Approach LOS		D			E			A			A	
Queue Length 50th (ft)		12			63	45	1	72		66	60	
Queue Length 95th (ft)		39			115	82	m1	817		m109	547	
Internal Link Dist (ft)		416			1256			369			641	
Turn Bay Length (ft)						100	100			350		
Base Capacity (vph)		195			169	364	80	3411		177	4003	
Starvation Cap Reductn		0			0	0	0	252		0	387	
Spillback Cap Reductn		0			0	0	0	4		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.12			0.49	0.20	0.01	0.89		0.51	0.72	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 105 (88%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 9.7		Intersection LOS: A	
Intersection Capacity Utilization 78.2%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 9: Essen & Essen Park

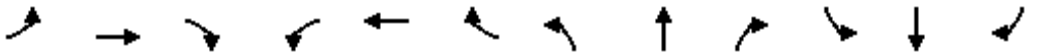
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	344	251	1606	220	150	1355
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		0	150	
Storage Lanes	2	1		0	1	
Taper Length (ft)	25				100	
Lane Util. Factor	0.97	1.00	0.91	0.91	1.00	0.95
Frt		0.850	0.982			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	4994	0	1770	3539
Flt Permitted	0.950				0.057	
Satd. Flow (perm)	3433	1583	4994	0	106	3539
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			31			
Link Speed (mph)	30		45			45
Link Distance (ft)	1306		805			993
Travel Time (s)	29.7		12.2			15.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	374	273	1746	239	163	1473
Shared Lane Traffic (%)						
Lane Group Flow (vph)	374	273	1985	0	163	1473
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	52		20			25
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2		1	2
Detector Template						
Leading Detector (ft)	45	45	162		45	162
Trailing Detector (ft)	0	0	156		0	256
Detector 1 Position(ft)	0	0	-6		0	-6
Detector 1 Size(ft)	45	45	51		45	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			156			256
Detector 2 Size(ft)			6			-94
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm	pt+ov	NA		pm+pt	NA
Protected Phases		5 8	6		5	2
Permitted Phases	8				2	
Detector Phase	8	5 8	6		5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	4.0		15.0		5.0	15.0
Minimum Split (s)	20.0		21.0		11.0	21.0
Total Split (s)	24.0		69.0		27.0	96.0
Total Split (%)	20.0%		57.5%		22.5%	80.0%
Maximum Green (s)	20.0		63.0		21.0	90.0
Yellow Time (s)	3.5		5.0		5.0	5.0
All-Red Time (s)	0.5		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.0		6.0		6.0	6.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		5.0		2.0	5.0
Minimum Gap (s)	3.0		3.0		0.2	3.0
Time Before Reduce (s)	0.0		15.0		0.0	15.0
Time To Reduce (s)	0.0		15.0		0.0	15.0
Recall Mode	None		C-Min		None	Min
Walk Time (s)	5.0					
Flash Dont Walk (s)	11.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	17.9	40.5	67.5		92.1	92.1
Actuated g/C Ratio	0.15	0.34	0.56		0.77	0.77
v/c Ratio	0.73	0.51	0.70		0.48	0.54
Control Delay	57.5	34.6	8.7		32.7	4.5
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	57.5	34.6	8.7		32.7	4.5
LOS	E	C	A		C	A
Approach Delay	47.8		8.7			7.3
Approach LOS	D		A			A
Queue Length 50th (ft)	142	162	96		64	191
Queue Length 95th (ft)	193	240	470		143	94
Internal Link Dist (ft)	1226		725			913
Turn Bay Length (ft)		100			150	
Base Capacity (vph)	578	545	2829		374	2722
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.65	0.50	0.70		0.44	0.54

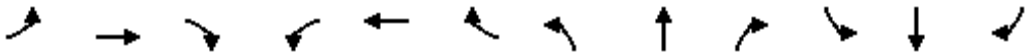
Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 40 (33%), Referenced to phase 6:NBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 14.1	Intersection LOS: B
Intersection Capacity Utilization 67.4%	ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 17: Essen & United Plaza South



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	836	100	106	124	94	244	86	1371	66	315	1497	585
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	425		50	280		280	150		0	550		300
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	100			200			25			100		
Lane Util. Factor	0.91	0.91	1.00	0.95	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Frt			0.850			0.850		0.993				0.850
Flt Protected	0.950	0.967		0.950	0.992		0.950			0.950		
Satd. Flow (prot)	3221	1639	1583	1681	1755	1583	1770	5050	0	1770	5085	1583
Flt Permitted	0.950	0.967		0.950	0.992		0.160			0.160		
Satd. Flow (perm)	3221	1639	1583	1681	1755	1583	298	5050	0	298	5085	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								6				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1908			1396			1335			892	
Travel Time (s)		43.4			31.7			20.2			13.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	909	109	115	135	102	265	93	1490	72	342	1627	636
Shared Lane Traffic (%)	26%			14%								
Lane Group Flow (vph)	673	345	115	116	121	265	93	1562	0	342	1627	636
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		45			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	0	1	1	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	0	45	45	45	45	162		45	162	0
Trailing Detector (ft)	0	0	0	0	0	0	0	156		0	156	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	-6		0	-6	-6
Detector 1 Size(ft)	45	45	20	45	45	45	45	51		45	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Call
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	pm+pt	NA		pm+pt	NA	pt+ov
Protected Phases	8	8	8 1	4	4	4 5	1	6		5	2	2 8
Permitted Phases							6			2		
Detector Phase	8	8	8 1	4	4	4 5	1	6		5	2	2 8

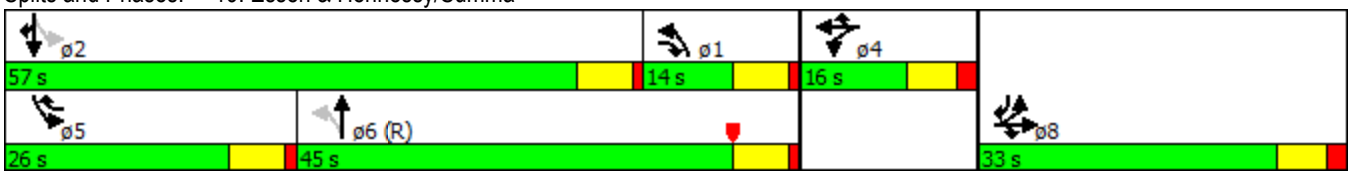


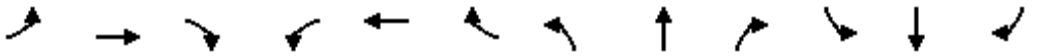
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.5	14.5		14.5	14.5		9.0	21.0		9.0	21.0	
Total Split (s)	33.0	33.0		16.0	16.0		14.0	45.0		26.0	57.0	
Total Split (%)	27.5%	27.5%		13.3%	13.3%		11.7%	37.5%		21.7%	47.5%	
Maximum Green (s)	26.5	26.5		9.5	9.5		8.0	39.0		20.0	51.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	26.5	26.5	40.0	9.5	9.5	29.0	39.0	39.0		45.0	45.0	78.0
Actuated g/C Ratio	0.22	0.22	0.33	0.08	0.08	0.24	0.32	0.32		0.38	0.38	0.65
v/c Ratio	0.95	0.96	0.22	0.87	0.88	0.69	0.35	0.95		0.96	0.85	0.62
Control Delay	69.3	84.1	19.5	104.8	104.4	35.7	26.0	35.1		72.0	33.1	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	69.3	84.1	19.5	104.8	104.4	35.7	26.0	35.1		72.0	33.1	14.4
LOS	E	F	B	F	F	D	C	D		E	C	B
Approach Delay		68.8			68.2			34.6			33.7	
Approach LOS		E			E			C			C	
Queue Length 50th (ft)	284	292	44	94	98	101	37	441		223	292	217
Queue Length 95th (ft)	#407	#495	86	#212	#217	172	m63	#536		#371	403	259
Internal Link Dist (ft)		1828			1316			1255			812	
Turn Bay Length (ft)	425		50	280		280	150			550		300
Base Capacity (vph)	711	361	527	133	138	382	268	1645		357	2161	1108
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.95	0.96	0.22	0.87	0.88	0.69	0.35	0.95		0.96	0.75	0.57

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 70 (58%), Referenced to phase 6:NBTL, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 43.6		Intersection LOS: D	
Intersection Capacity Utilization 84.7%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

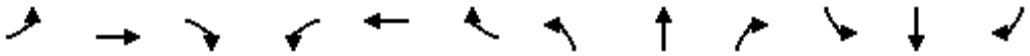
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Essen & Hennessy/Summa





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	217	143	202	81	102	83	157	1223	93	105	1457	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	150		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.912			0.933			0.989			0.985	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1699	0	1770	1738	0	1770	5029	0	1770	5009	0
Flt Permitted	0.509			0.227			0.950			0.950		
Satd. Flow (perm)	948	1699	0	423	1738	0	1770	5029	0	1770	5009	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		62			35			12			20	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1062			1416			1475			1335	
Travel Time (s)		24.1			32.2			22.3			20.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	236	155	220	88	111	90	171	1329	101	114	1584	180
Shared Lane Traffic (%)												
Lane Group Flow (vph)	236	375	0	88	201	0	171	1430	0	114	1764	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template												
Leading Detector (ft)	45	45		45	45		45	162		45	162	
Trailing Detector (ft)	0	0		0	0		0	156		0	156	
Detector 1 Position(ft)	0	0		0	0		0	-6		0	-6	
Detector 1 Size(ft)	45	45		45	45		45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4		1	6		5	2	

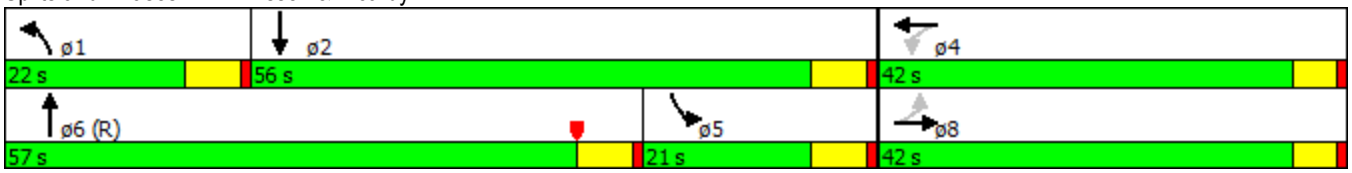


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		2.0	15.0		3.0	15.0	
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	21.0		9.0	21.0	
Total Split (s)	42.0	42.0		42.0	42.0		22.0	57.0		21.0	56.0	
Total Split (%)	35.0%	35.0%		35.0%	35.0%		18.3%	47.5%		17.5%	46.7%	
Maximum Green (s)	37.0	37.0		37.0	37.0		16.0	51.0		15.0	50.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Act Effct Green (s)	31.6	31.6		31.6	31.6		14.6	56.4		15.0	56.8	
Actuated g/C Ratio	0.26	0.26		0.26	0.26		0.12	0.47		0.12	0.47	
v/c Ratio	0.95	0.76		0.79	0.42		0.80	0.60		0.52	0.74	
Control Delay	87.6	43.6		83.9	31.4		76.8	25.6		32.3	8.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	87.6	43.6		83.9	31.4		76.8	25.6		32.3	8.4	
LOS	F	D		F	C		E	C		C	A	
Approach Delay		60.6			47.4			31.0			9.9	
Approach LOS		E			D			C			A	
Queue Length 50th (ft)	175	220		62	103		129	301		79	68	
Queue Length 95th (ft)	#308	322		#146	167		#229	371		m105	106	
Internal Link Dist (ft)		982			1336			1395			1255	
Turn Bay Length (ft)	225			150			150			150		
Base Capacity (vph)	292	566		130	560		236	2369		221	2380	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.81	0.66		0.68	0.36		0.72	0.60		0.52	0.74	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 50 (42%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 27.2		Intersection LOS: C	
Intersection Capacity Utilization 83.3%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Essen & Picardy



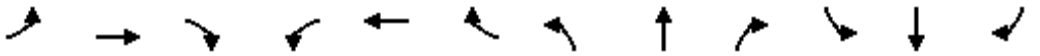
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	95	191	1748	92	179	1204
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	125		125	125	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.88	0.91	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2787	5085	1583	1770	3539
Flt Permitted	0.950				0.073	
Satd. Flow (perm)	1770	2787	5085	1583	136	3539
Right Turn on Red		Yes		No		
Satd. Flow (RTOR)		208				
Link Speed (mph)	30		45			45
Link Distance (ft)	1179		993			571
Travel Time (s)	26.8		15.0			8.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	103	208	1900	100	195	1309
Shared Lane Traffic (%)						
Lane Group Flow (vph)	103	208	1900	100	195	1309
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	42		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template						
Leading Detector (ft)	45	45	162	45	45	162
Trailing Detector (ft)	0	0	156	0	0	284
Detector 1 Position(ft)	0	0	-6	0	0	-6
Detector 1 Size(ft)	45	45	51	45	45	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			156			284
Detector 2 Size(ft)			6			-122
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	pt+ov	pm+pt	NA
Protected Phases	4		6	6 4	5	2
Permitted Phases		4			2	
Detector Phase	4	4	6	6 4	5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	5.0	5.0	15.0		3.0	15.0
Minimum Split (s)	11.0	11.0	21.0		9.0	21.0
Total Split (s)	23.0	23.0	71.0		26.0	97.0
Total Split (%)	19.2%	19.2%	59.2%		21.7%	80.8%
Maximum Green (s)	17.0	17.0	65.0		20.0	91.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0
Recall Mode	None	None	C-Min		None	Min
Act Effct Green (s)	11.3	11.3	78.2	95.6	96.7	96.7
Actuated g/C Ratio	0.09	0.09	0.65	0.80	0.81	0.81
v/c Ratio	0.62	0.46	0.57	0.08	0.70	0.46
Control Delay	67.4	9.8	5.6	1.8	44.2	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	67.4	9.8	5.6	1.8	44.2	1.9
LOS	E	A	A	A	D	A
Approach Delay	28.9		5.4			7.4
Approach LOS	C		A			A
Queue Length 50th (ft)	78	0	76	5	69	36
Queue Length 95th (ft)	132	38	179	m14	167	35
Internal Link Dist (ft)	1099		913			491
Turn Bay Length (ft)		125		125	125	
Base Capacity (vph)	250	573	3314	1335	381	2850
Starvation Cap Reductn	0	0	0	0	0	271
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.36	0.57	0.07	0.51	0.51

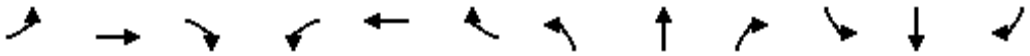
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 37 (31%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 8.1		Intersection LOS: A	
Intersection Capacity Utilization 64.0%		ICU Level of Service B	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 28: Essen & United Plaza North



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	1	24	83	3	162	10	1868	61	182	1276	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		100	175		0	150		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	0.95
Frt		0.856				0.850		0.995			0.995	
Flt Protected	0.950				0.954		0.950			0.950		
Satd. Flow (prot)	1770	1595	0	0	1777	1583	1770	5060	0	1770	3522	0
Flt Permitted	0.697				0.713		0.185			0.053		
Satd. Flow (perm)	1298	1595	0	0	1328	1583	345	5060	0	99	3522	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		26						6			5	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		757			843			571			472	
Travel Time (s)		17.2			19.2			8.7			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	55	1	26	90	3	176	11	2030	66	198	1387	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	55	27	0	0	93	176	11	2096	0	198	1434	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	4	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	162		45	390	
Trailing Detector (ft)	0	0		0	0	0	0	156		0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	45	45		20	45	45	45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Detector 3 Position(ft)											308	
Detector 3 Size(ft)											6	
Detector 3 Type											Cl+Ex	
Detector 3 Channel												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 3 Extend (s)											0.0	
Detector 4 Position(ft)											384	
Detector 4 Size(ft)											6	
Detector 4 Type											Cl+Ex	
Detector 4 Channel												
Detector 4 Extend (s)											0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		8		7	4	4 5	1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4	4 5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	31.0		11.0	31.0	
Total Split (s)	18.0	18.0		11.0	29.0		11.0	66.0		25.0	80.0	
Total Split (%)	15.0%	15.0%		9.2%	24.2%		9.2%	55.0%		20.8%	66.7%	
Maximum Green (s)	12.0	12.0		5.0	23.0		5.0	60.0		19.0	74.0	
Yellow Time (s)	4.5	4.5		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		2.0	2.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lead		Lag			Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	3.0		0.2	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	14.3	14.3			14.3	32.1	76.9	75.9		91.5	91.5	
Actuated g/C Ratio	0.12	0.12			0.12	0.27	0.64	0.63		0.76	0.76	
v/c Ratio	0.35	0.13			0.59	0.42	0.04	0.65		0.83	0.53	
Control Delay	53.6	17.6			64.2	37.4	5.0	5.6		67.6	3.8	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.1	
Total Delay	53.6	17.6			64.2	37.4	5.0	5.6		67.6	3.8	
LOS	D	B			E	D	A	A		E	A	
Approach Delay		41.7			46.7			5.6			11.6	
Approach LOS		D			D			A			B	
Queue Length 50th (ft)	40	1			69	114	1	97		113	90	
Queue Length 95th (ft)	79	28			121	152	m2	196		173	102	
Internal Link Dist (ft)		677			763			491			392	
Turn Bay Length (ft)	75					100	175			150		
Base Capacity (vph)	161	221			254	512	280	3204		341	2685	
Starvation Cap Reductn	0	0			0	0	0	0		0	189	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.34	0.12			0.37	0.34	0.04	0.65		0.58	0.57	

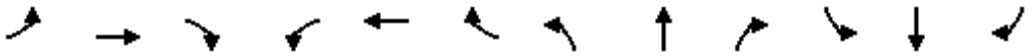
Intersection Summary	
Area Type:	Other
Cycle Length: 120	

Actuated Cycle Length: 120	
Offset: 32 (27%), Referenced to phase 2:SBTL, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 11.4	Intersection LOS: B
Intersection Capacity Utilization 74.0%	ICU Level of Service D
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 29: Essen & Sholar/Archives

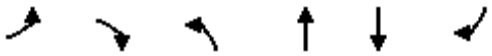
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	311	0	83	0	0	0	0	1300	780	0	1418	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.935							0.850			
Flt Protected	0.950	0.972										
Satd. Flow (prot)	1681	1608	0	0	0	0	0	3539	1583	0	3539	0
Flt Permitted	0.950	0.972										
Satd. Flow (perm)	1681	1608	0	0	0	0	0	3539	1583	0	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36							376			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		995			508			472			1384	
Travel Time (s)		22.6			11.5			7.2			21.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	338	0	90	0	0	0	0	1413	848	0	1541	0
Shared Lane Traffic (%)	35%											
Lane Group Flow (vph)	220	208	0	0	0	0	0	1413	848	0	1541	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1						2	1		2	
Detector Template												
Leading Detector (ft)	45	45						162	45		162	
Trailing Detector (ft)	0	0						156	0		156	
Detector 1 Position(ft)	0	0						-6	0		-6	
Detector 1 Size(ft)	45	45						51	45		51	
Detector 1 Type	Cl+Ex	Cl+Ex						Call	Cl+Ex		Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0		0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA						NA	Free		NA	
Protected Phases		8						6			2	
Permitted Phases	8								Free			
Detector Phase	8	8						6			2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	10.0	10.0						25.0			25.0	
Minimum Split (s)	17.0	17.0						32.0			32.0	
Total Split (s)	36.0	36.0						84.0			84.0	
Total Split (%)	30.0%	30.0%						70.0%			70.0%	
Maximum Green (s)	29.0	29.0						77.0			77.0	
Yellow Time (s)	5.0	5.0						5.0			5.0	
All-Red Time (s)	2.0	2.0						2.0			2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	7.0	7.0						7.0			7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5						5.0			5.0	
Minimum Gap (s)	0.2	0.2						3.0			3.0	
Time Before Reduce (s)	0.0	0.0						15.0			15.0	
Time To Reduce (s)	0.0	0.0						15.0			15.0	
Recall Mode	None	None						C-Max			Max	
Act Effct Green (s)	20.5	20.5						85.5	120.0		85.5	
Actuated g/C Ratio	0.17	0.17						0.71	1.00		0.71	
v/c Ratio	0.77	0.69						0.56	0.54		0.61	
Control Delay	64.5	49.5						5.5	2.5		10.8	
Queue Delay	0.0	0.0						0.1	0.0		0.0	
Total Delay	64.5	49.5						5.6	2.5		10.8	
LOS	E	D						A	A		B	
Approach Delay		57.2						4.5			10.8	
Approach LOS		E						A			B	
Queue Length 50th (ft)	172	133						63	4		284	
Queue Length 95th (ft)	248	206						185	10		430	
Internal Link Dist (ft)		915			428			392			1304	
Turn Bay Length (ft)	400											
Base Capacity (vph)	406	415						2522	1583		2522	
Starvation Cap Reductn	0	0						231	0		0	
Spillback Cap Reductn	0	0						0	0		0	
Storage Cap Reductn	0	0						0	0		0	
Reduced v/c Ratio	0.54	0.50						0.62	0.54		0.61	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 37 (31%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 12.1		Intersection LOS: B	
Intersection Capacity Utilization 62.0%		ICU Level of Service B	
Analysis Period (min) 15			

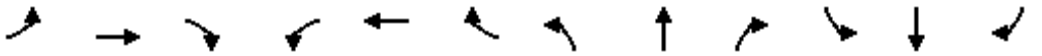
Splits and Phases: 32: Essen & I-12 EB



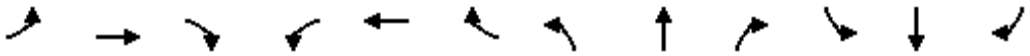
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	69	31	2596	2428	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	50			0
Storage Lanes	0	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91
Frt		0.865			0.998	
Flt Protected			0.950			
Satd. Flow (prot)	0	1611	1770	5085	5075	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	1611	1770	5085	5075	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	453			230	449	
Travel Time (s)	10.3			3.5	6.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	75	34	2822	2639	41
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	75	34	2822	2680	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 58.7%		ICU Level of Service B	
Analysis Period (min) 15			

M.28 2037 NO BUILD NOON – BLUEBONNET BOULEVARD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	211	899	382	511	894	297	341	1002	262	396	689	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		250	325		375	350		0	250		150
Storage Lanes	2		1	2		1	2		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Frt			0.850			0.850		0.969				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3429	0	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3429	0	3433	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								24				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		2445			3864			2201			709	
Travel Time (s)		37.0			58.5			33.3			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	222	946	402	538	941	313	359	1055	276	417	725	174
Shared Lane Traffic (%)												
Lane Group Flow (vph)	222	946	402	538	941	313	359	1331	0	417	725	174
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45	45	290		45	290	45
Trailing Detector (ft)	-6	284	-6	-6	284	-6	-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6	-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51	51	51		51	51	51
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		284			284			284			284	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Extend			Extend			Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8		7	4	4 5
Permitted Phases												
Detector Phase	5	2	2 3	1	6	6 7	3	8		7	4	4 5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	10.0		4.0	10.0	
Minimum Split (s)	11.0	34.5		11.0	37.5		11.0	41.0		11.0	41.0	
Total Split (s)	17.0	42.0		27.0	52.0		29.0	59.0		22.0	52.0	
Total Split (%)	11.3%	28.0%		18.0%	34.7%		19.3%	39.3%		14.7%	34.7%	
Maximum Green (s)	10.0	35.5		20.0	45.5		22.0	52.0		15.0	45.0	
Yellow Time (s)	5.0	4.5		5.0	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	6.5		7.0	6.5		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.3		3.0	4.3		3.0	3.9		3.0	3.9	
Minimum Gap (s)	0.2	2.2		0.2	2.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	15.0		0.0	15.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0		0.0	10.0		0.0	10.0	
Recall Mode	None	Min		None	Min		None	Min		None	C-Min	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		23.0			26.0			29.0			29.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	10.0	35.5	68.5	20.0	45.5	67.5	32.5	52.0		15.0	34.5	44.5
Actuated g/C Ratio	0.07	0.24	0.46	0.13	0.30	0.45	0.22	0.35		0.10	0.23	0.30
v/c Ratio	0.97	1.13	0.56	1.18	0.88	0.44	0.48	1.11		1.22	0.89	0.37
Control Delay	121.6	124.2	19.8	154.8	59.9	30.7	55.2	104.2		181.7	60.7	18.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	121.6	124.2	19.8	154.8	59.9	30.7	55.2	104.2		181.7	60.7	18.2
LOS	F	F	B	F	E	C	E	F		F	E	B
Approach Delay		97.1			83.3			93.8			93.4	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	113	~562	159	~323	461	207	160	~771		~250	266	73
Queue Length 95th (ft)	#202	#700	256	#443	551	294	226	#914		#362	315	89
Internal Link Dist (ft)		2365			3784			2121			629	
Turn Bay Length (ft)	440		250	325		375	350			250		150
Base Capacity (vph)	228	837	722	457	1073	712	744	1204		343	1061	580
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.97	1.13	0.56	1.18	0.88	0.44	0.48	1.11		1.22	0.68	0.30

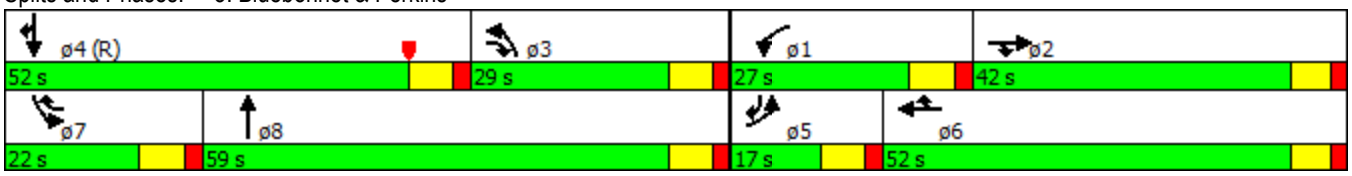
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 52 (35%), Referenced to phase 4:SBT, Start of Yellow			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.22			
Intersection Signal Delay: 91.6		Intersection LOS: F	
Intersection Capacity Utilization 109.7%		ICU Level of Service H	

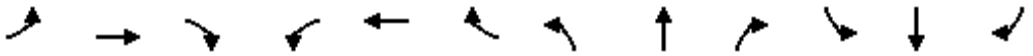
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

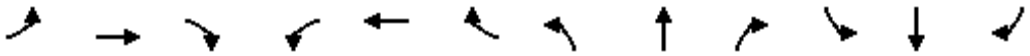
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Bluebonnet & Perkins





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	158	22	53	78	13	196	43	1405	62	369	1119	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		125	160		160	175		0
Storage Lanes	1		0	0		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.894				0.850			0.850		0.986	
Flt Protected	0.950				0.959		0.950			0.950		
Satd. Flow (prot)	1770	1665	0	0	1786	1583	1770	3539	1583	3433	3490	0
Flt Permitted	0.695				0.573		0.950			0.950		
Satd. Flow (perm)	1295	1665	0	0	1067	1583	1770	3539	1583	3433	3490	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		56									13	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		511			1048			709			2556	
Travel Time (s)		11.6			23.8			10.7			38.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	166	23	56	82	14	206	45	1479	65	388	1178	118
Shared Lane Traffic (%)												
Lane Group Flow (vph)	166	79	0	0	96	206	45	1479	65	388	1296	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290	45	45	290	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284	-6	-6	284	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6	-6	-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	
Protected Phases		8		7	4	4 5	1	6	6 7	5	2	
Permitted Phases	8			4								
Detector Phase	8	8		7	4	4 5	1	6	6 7	5	2	



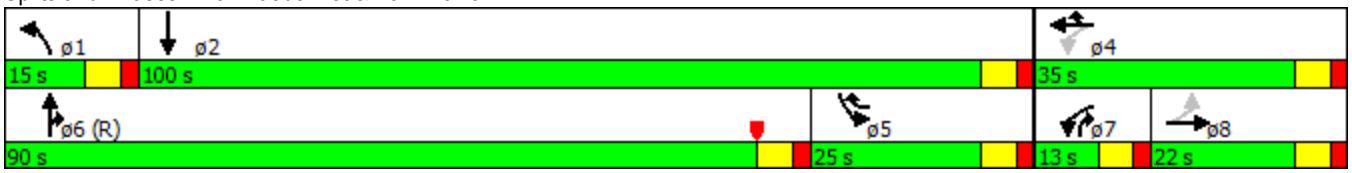
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		3.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	11.0	11.0		9.0	11.0		9.0	21.0		9.0	21.0	
Total Split (s)	22.0	22.0		13.0	35.0		15.0	90.0		25.0	100.0	
Total Split (%)	14.7%	14.7%		8.7%	23.3%		10.0%	60.0%		16.7%	66.7%	
Maximum Green (s)	16.0	16.0		7.0	29.0		9.0	84.0		19.0	94.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		1.5	2.0		1.5	4.0		1.5	4.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	26.5	26.5			35.9	62.4	7.3	75.6	81.1	20.5	90.8	
Actuated g/C Ratio	0.18	0.18			0.24	0.42	0.05	0.50	0.54	0.14	0.61	
v/c Ratio	0.73	0.23			0.35	0.31	0.52	0.83	0.08	0.83	0.61	
Control Delay	77.0	23.9			51.6	31.8	71.3	45.7	11.0	78.1	20.2	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.4	0.0	0.0	0.0	
Total Delay	77.0	23.9			51.6	31.8	71.3	46.2	11.0	78.1	20.2	
LOS	E	C			D	C	E	D	B	E	C	
Approach Delay		59.9			38.1			45.4			33.5	
Approach LOS		E			D			D			C	
Queue Length 50th (ft)	151	19			72	123	47	620	26	190	456	
Queue Length 95th (ft)	#349	75			138	220	m52	m421	m19	#278	436	
Internal Link Dist (ft)		431			968			629			2476	
Turn Bay Length (ft)	100					125	160		160	175		
Base Capacity (vph)	228	339			277	650	106	1981	960	478	2225	
Starvation Cap Reductn	0	0			0	0	0	153	0	0	0	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.73	0.23			0.35	0.32	0.42	0.81	0.07	0.81	0.58	

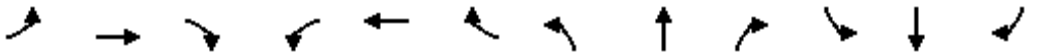
Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 75 (50%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 40.5 Intersection LOS: D
Intersection Capacity Utilization 79.8% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

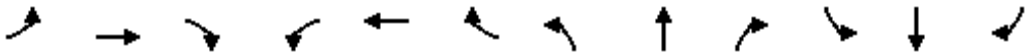
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Bluebonnet & Park Rowe





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	194	15	95	25	7	9	70	1678	11	21	1480	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	475		475	50		0	425		0	130		130
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.916			0.999				0.850
Flt Protected	0.950	0.959		0.950			0.950			0.950		
Satd. Flow (prot)	1681	1697	1583	1770	1706	0	1770	3536	0	1770	3539	1583
Flt Permitted	0.950	0.959		0.950			0.950			0.950		
Satd. Flow (perm)	1681	1697	1583	1770	1706	0	1770	3536	0	1770	3539	1583
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)					9			1				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1004			740			2556			469	
Travel Time (s)		22.8			16.8			38.7			7.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	204	16	100	26	7	9	74	1766	12	22	1558	177
Shared Lane Traffic (%)	46%											
Lane Group Flow (vph)	110	110	100	26	16	0	74	1778	0	22	1558	177
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	45	45	45		45	290		45	290	45
Trailing Detector (ft)	-6	-6	-6	-6	-6		-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6		-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51		51	51		51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA		Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4		1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4		1	6		5	2	2 8



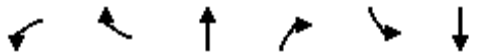
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.5	25.5		8.5	25.5	
Total Split (s)	14.0	14.0		12.0	12.0		13.0	81.0		13.0	81.0	
Total Split (%)	11.7%	11.7%		10.0%	10.0%		10.8%	67.5%		10.8%	67.5%	
Maximum Green (s)	9.0	9.0		7.0	7.0		7.5	75.5		7.5	75.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	6.0		3.0	6.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	10.8	10.8	24.1	7.4	7.4		7.7	83.7		6.8	78.2	90.8
Actuated g/C Ratio	0.09	0.09	0.20	0.06	0.06		0.06	0.70		0.06	0.65	0.76
v/c Ratio	0.72	0.72	0.32	0.24	0.14		0.65	0.72		0.22	0.68	0.15
Control Delay	80.4	79.6	44.9	59.6	38.5		81.0	15.2		55.3	11.1	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.1	0.0
Total Delay	80.4	79.6	44.9	59.6	38.5		81.0	15.2		55.3	11.2	2.3
LOS	F	E	D	E	D		F	B		E	B	A
Approach Delay		69.0			51.5			17.8			10.8	
Approach LOS		E			D			B			B	
Queue Length 50th (ft)	90	90	68	20	5		57	503		18	233	18
Queue Length 95th (ft)	#205	#204	123	50	29		#132	606		m44	267	27
Internal Link Dist (ft)		924			660			2476			389	
Turn Bay Length (ft)	475		475	50			425			130		130
Base Capacity (vph)	152	153	319	109	113		115	2465		110	2306	1197
Starvation Cap Reductn	0	0	0	0	0		0	0		0	98	0
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.72	0.72	0.31	0.24	0.14		0.64	0.72		0.20	0.71	0.15

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 111 (93%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 19.2		Intersection LOS: B	
Intersection Capacity Utilization 75.8%		ICU Level of Service D	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Bluebonnet & Anselmo



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Lane Configurations									
Volume (vph)	355	136	1384	497	87	1314			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	0	100		150	350				
Storage Lanes	2	1		1	1				
Taper Length (ft)	25				25				
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.91			
Frt		0.850		0.850					
Flt Protected	0.950				0.950				
Satd. Flow (prot)	3433	1583	3539	1583	1770	5085			
Flt Permitted	0.950				0.950				
Satd. Flow (perm)	3433	1583	3539	1583	1770	5085			
Right Turn on Red		No		No					
Satd. Flow (RTOR)									
Link Speed (mph)	30		45			45			
Link Distance (ft)	352		390			974			
Travel Time (s)	8.0		5.9			14.8			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95			
Adj. Flow (vph)	374	143	1457	523	92	1383			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	374	143	1457	523	92	1383			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Right	Left	Left			
Median Width(ft)	35		20			20			
Link Offset(ft)	0		0			0			
Crosswalk Width(ft)	16		16			16			
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Turning Speed (mph)	15	9		9	15				
Number of Detectors	1	1	2	1	1	2			
Detector Template									
Leading Detector (ft)	45	45	290	45	45	290			
Trailing Detector (ft)	-6	-6	284	-6	-6	284			
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			
Detector 1 Size(ft)	51	51	51	51	51	51			
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call			
Detector 1 Channel									
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)			284			284			
Detector 2 Size(ft)			6			6			
Detector 2 Type			Extend			Extend			
Detector 2 Channel									
Detector 2 Extend (s)			0.0			0.0			
Turn Type	Prot	pt+ov	NA	pt+ov	Prot	NA			
Protected Phases	4	4 3	1	1 4	3	2	5	7	8
Permitted Phases									
Detector Phase	4	4 3	1	1 4	3	2			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Switch Phase									
Minimum Initial (s)	4.0		24.0		4.0	34.0	4.0	4.0	29.0
Minimum Split (s)	10.0		30.0		10.0	40.0	10.0	22.0	35.0
Total Split (s)	35.0		72.0		13.0	85.0	58.0	27.0	35.0
Total Split (%)	29.2%		60.0%		10.8%	70.8%	48%	23%	29%
Maximum Green (s)	30.0		66.0		7.0	79.0	52.0	21.0	29.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0			
Total Lost Time (s)	5.0		6.0		6.0	6.0			
Lead/Lag			Lag		Lead		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	
Vehicle Extension (s)	2.5		4.3		2.0	4.3	2.5	3.0	4.3
Minimum Gap (s)	0.2		2.2		0.2	2.2	0.2	3.0	2.2
Time Before Reduce (s)	0.0		20.0		0.0	30.0	0.0	0.0	30.0
Time To Reduce (s)	0.0		15.0		0.0	15.0	0.0	0.0	15.0
Recall Mode	None		Min		None	C-Min	Max	None	Min
Walk Time (s)								5.0	
Flash Dont Walk (s)								11.0	
Pedestrian Calls (#/hr)								0	
Act Effct Green (s)	30.0	44.0	65.0	100.0	8.0	79.0			
Actuated g/C Ratio	0.25	0.37	0.54	0.83	0.07	0.66			
v/c Ratio	0.44	0.25	0.76	0.40	0.78	0.41			
Control Delay	18.0	11.8	14.7	1.9	101.5	2.6			
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay	18.0	11.8	14.7	1.9	101.5	2.6			
LOS	B	B	B	A	F	A			
Approach Delay	16.3		11.4			8.8			
Approach LOS	B		B			A			
Queue Length 50th (ft)	65	40	146	20	75	44			
Queue Length 95th (ft)	97	71	201	24	m#160	36			
Internal Link Dist (ft)	272		310			894			
Turn Bay Length (ft)		100		150	350				
Base Capacity (vph)	858	580	1946	1285	118	3347			
Starvation Cap Reductn	0	0	0	0	0	0			
Spillback Cap Reductn	0	0	0	0	0	0			
Storage Cap Reductn	0	0	0	0	0	0			
Reduced v/c Ratio	0.44	0.25	0.75	0.41	0.78	0.41			

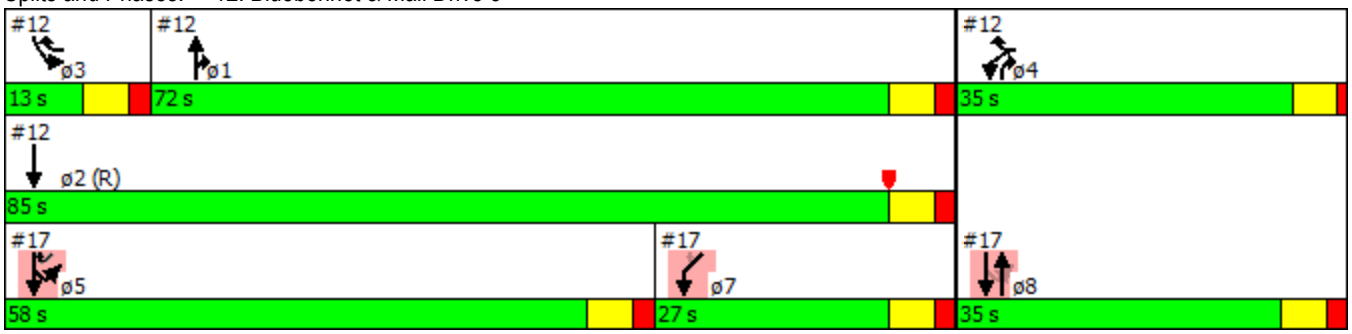
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 108 (90%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 11.0		Intersection LOS: B	
Intersection Capacity Utilization 67.4%		ICU Level of Service C	

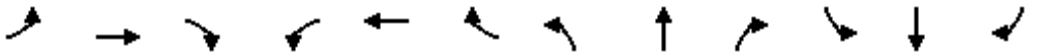
Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

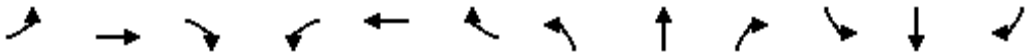
Splits and Phases: 12: Bluebonnet & Mall Drive 3





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	447	160	220	80	171	46	228	1240	53	226	1102	459
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	140		140	200		200	200		160
Storage Lanes	2		0	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		0.913				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3231	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3231	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		232										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1050			403			974			1065	
Travel Time (s)		23.9			9.2			14.8			16.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	471	168	232	84	180	48	240	1305	56	238	1160	483
Shared Lane Traffic (%)												
Lane Group Flow (vph)	471	400	0	84	180	48	240	1305	56	238	1160	483
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			36			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pt+ov
Protected Phases	3	2		9	8	8 6	1	10	10 9	6	5	5 3
Permitted Phases												
Detector Phase	3	2		9	8	8 6	1	10	10 9	6	5	5 3

Lane Group	ø11	ø12	ø13	ø14
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	11	12	13	14
Permitted Phases				
Detector Phase				

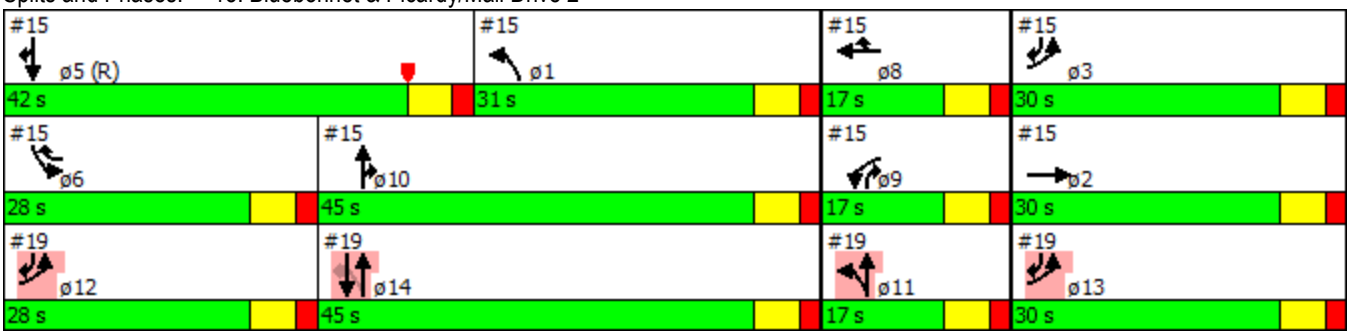


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	21.0		3.0	21.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		11.0	27.0		11.0	27.0	
Total Split (s)	30.0	30.0		17.0	17.0		31.0	45.0		28.0	42.0	
Total Split (%)	25.0%	25.0%		14.2%	14.2%		25.8%	37.5%		23.3%	35.0%	
Maximum Green (s)	24.0	24.0		11.0	11.0		25.0	39.0		22.0	36.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.0		1.0	1.0		3.0	4.3		1.0	4.3	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	28.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	15.0	
Recall Mode	None	None		None	None		None	None		None	C-Min	
Act Effct Green (s)	22.3	22.3		9.3	9.3	31.7	20.7	42.1	57.4	22.4	43.7	71.9
Actuated g/C Ratio	0.19	0.19		0.08	0.08	0.26	0.17	0.35	0.48	0.19	0.36	0.60
v/c Ratio	0.74	0.51		0.32	0.66	0.11	0.79	0.73	0.07	0.37	0.63	0.51
Control Delay	53.4	19.7		33.6	42.9	21.9	43.8	19.4	4.9	57.0	18.1	11.5
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.4	19.7		33.6	42.9	21.9	43.8	19.4	4.9	57.0	18.1	11.5
LOS	D	B		C	D	C	D	B	A	E	B	B
Approach Delay		38.0			37.2			22.5			21.3	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	170	56		32	76	33	161	153	4	71	74	1
Queue Length 95th (ft)	234	107		m53	111	m50	m231	263	m10	112	189	194
Internal Link Dist (ft)		970			323			894			985	
Turn Bay Length (ft)	150			140		140	200		200	200		160
Base Capacity (vph)	707	850		314	324	502	368	1850	778	774	1853	943
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.47		0.27	0.56	0.10	0.65	0.71	0.07	0.31	0.63	0.51

Intersection Summary

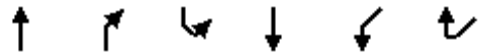
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 80 (67%), Referenced to phase 5:SBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 25.9 Intersection LOS: C
Intersection Capacity Utilization 71.4% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 15: Bluebonnet & Picardy/Mall Drive 2

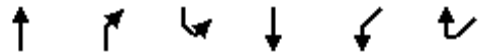


Lane Group	ø11	ø12	ø13	ø14
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	3.0
Minimum Split (s)	10.0	22.0	10.0	9.0
Total Split (s)	17.0	28.0	30.0	45.0
Total Split (%)	14%	23%	25%	38%
Maximum Green (s)	11.0	22.0	24.0	39.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	1.0
Minimum Gap (s)	3.0	3.0	3.0	0.2
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	Max	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Lane Configurations										
Volume (vph)	279	168	299	285	205	212				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00				
Frt	0.944					0.850				
Flt Protected			0.950		0.950					
Satd. Flow (prot)	3341	0	1770	1863	1770	1583				
Flt Permitted			0.326		0.950					
Satd. Flow (perm)	3341	0	607	1863	1770	1583				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)	99					212				
Link Speed (mph)	30			30	30					
Link Distance (ft)	797			352	1050					
Travel Time (s)	18.1			8.0	23.9					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Adj. Flow (vph)	303	183	325	310	223	230				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	486	0	325	310	223	230				
Enter Blocked Intersection	No	No	No	No	No	No				
Lane Alignment	Left	Right	Left	Left	Left	Right				
Median Width(ft)	0			12	12					
Link Offset(ft)	0			0	0					
Crosswalk Width(ft)	16			16	16					
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)		9	15		15	9				
Number of Detectors	2		1	2	1	1				
Detector Template	Thru		Left	Thru	Left	Right				
Leading Detector (ft)	100		20	100	20	20				
Trailing Detector (ft)	0		0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0				
Detector 1 Size(ft)	6		20	6	20	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel										
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0				
Detector 2 Position(ft)	94			94						
Detector 2 Size(ft)	6			6						
Detector 2 Type	Cl+Ex			Cl+Ex						
Detector 2 Channel										
Detector 2 Extend (s)	0.0			0.0						
Turn Type	NA		D.P+P	NA	Prot	pm+ov				
Protected Phases	8		5	5 8	7	5	1	2	3	4
Permitted Phases			8			7				
Detector Phase	8		5	5 8	7	5				
Switch Phase										
Minimum Initial (s)	29.0		4.0		4.0	4.0	24.0	34.0	4.0	4.0
Minimum Split (s)	35.0		10.0		22.0	10.0	30.0	40.0	10.0	10.0

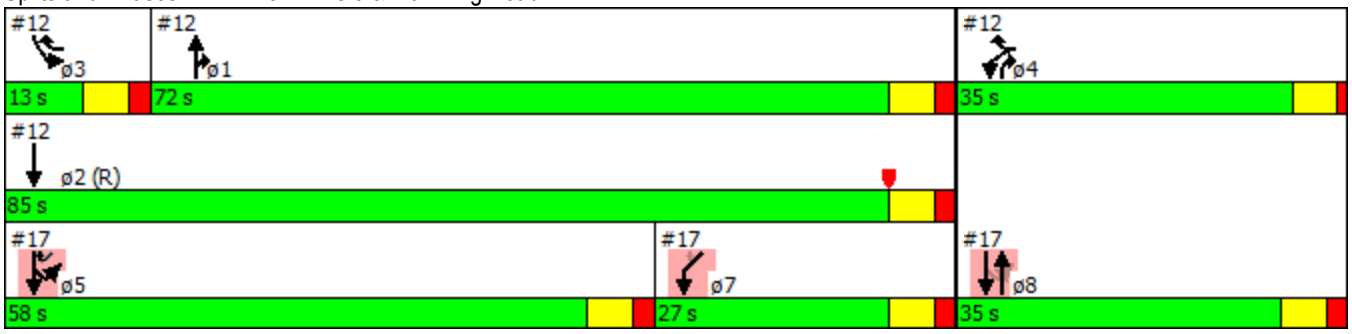


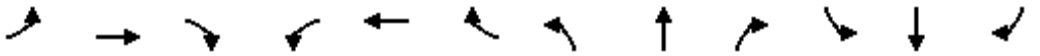
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Total Split (s)	35.0		58.0		27.0	58.0	72.0	85.0	13.0	35.0
Total Split (%)	29.2%		48.3%		22.5%	48.3%	60%	71%	11%	29%
Maximum Green (s)	29.0		52.0		21.0	52.0	66.0	79.0	7.0	30.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0		2.0	2.0	2.0	2.0	2.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0				
Total Lost Time (s)	6.0		6.0		6.0	6.0				
Lead/Lag			Lead		Lag	Lead	Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	Yes				
Vehicle Extension (s)	4.3		2.5		3.0	2.5	4.3	4.3	2.0	2.5
Minimum Gap (s)	2.2		0.2		3.0	0.2	2.2	2.2	0.2	0.2
Time Before Reduce (s)	30.0		0.0		0.0	0.0	20.0	30.0	0.0	0.0
Time To Reduce (s)	15.0		0.0		0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	Min		Max		None	Max	Min	C-Min	None	None
Walk Time (s)					5.0					
Flash Dont Walk (s)					11.0					
Pedestrian Calls (#/hr)					0					
Act Effct Green (s)	29.0		83.2	89.2	18.8	79.0				
Actuated g/C Ratio	0.24		0.69	0.74	0.16	0.66				
v/c Ratio	0.55		0.34	0.22	0.81	0.21				
Control Delay	34.0		12.0	6.8	59.9	4.8				
Queue Delay	0.0		0.4	0.7	0.0	0.0				
Total Delay	34.0		12.4	7.5	59.9	4.8				
LOS	C		B	A	E	A				
Approach Delay	34.0			10.0	31.9					
Approach LOS	C			B	C					
Queue Length 50th (ft)	138		93	87	106	0				
Queue Length 95th (ft)	194		m153	m143	#208	65				
Internal Link Dist (ft)	717			272	970					
Turn Bay Length (ft)										
Base Capacity (vph)	882		946	1385	309	1114				
Starvation Cap Reductn	0		258	747	0	0				
Spillback Cap Reductn	0		0	0	0	0				
Storage Cap Reductn	0		0	0	0	0				
Reduced v/c Ratio	0.55		0.47	0.49	0.72	0.21				

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 108 (90%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 23.7		Intersection LOS: C	
Intersection Capacity Utilization 67.1%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

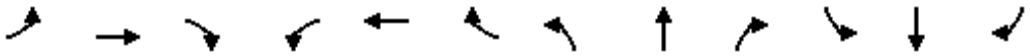
Splits and Phases: 17: Mall Drive 3 & Mall Ring Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	22	1677	33	238	1779	23	0	0	449	36	4	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		200	300		100	0		0	65		0
Storage Lanes	1		1	2		1	0		2	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.900	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1676	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1676	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			136			27			369		8	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1065			834			318			371	
Travel Time (s)		16.1			12.6			7.2			8.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	23	1765	35	251	1873	24	0	0	473	38	4	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	1765	35	251	1873	24	0	0	473	38	12	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1			1	1	1	
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45			45	45	45	
Trailing Detector (ft)	-6	284	-6	-6	284	-6			-6	-6	-6	
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			-6	-6	-6	
Detector 1 Size(ft)	51	51	51	51	51	51			51	51	51	
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA	Perm	Prot	NA	custom			Over	Perm	NA	
Protected Phases	1	7		5	4	2			5		2	
Permitted Phases			7			4				2		
Detector Phase	1	7	7	5	4	2			5	2	2	

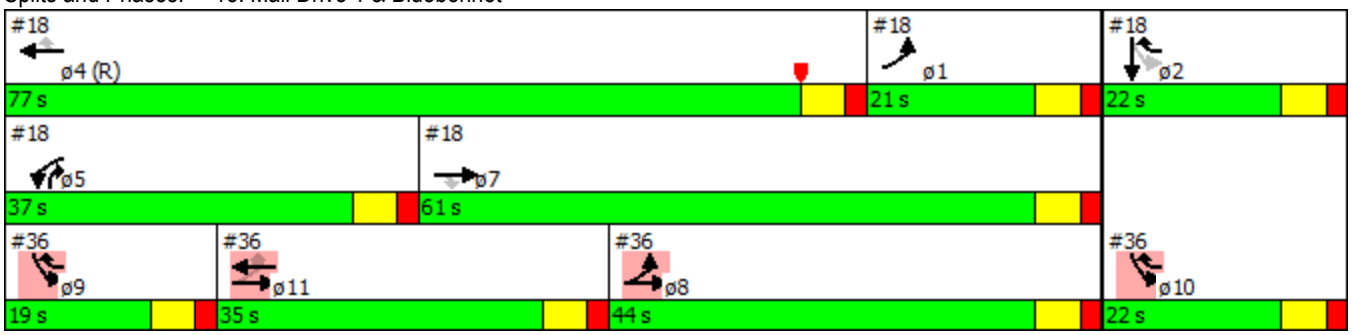
Lane Group	ø8	ø9	ø10	ø11
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	8	9	10	11
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	14.0	4.0	14.0	4.0			4.0	4.0	4.0	
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	10.0			10.0	10.0	10.0	
Total Split (s)	21.0	61.0	61.0	37.0	77.0	22.0			37.0	22.0	22.0	
Total Split (%)	17.5%	50.8%	50.8%	30.8%	64.2%	18.3%			30.8%	18.3%	18.3%	
Maximum Green (s)	15.0	55.0	55.0	31.0	71.0	16.0			31.0	16.0	16.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0			6.0	6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	4.3	4.3	2.5	4.3	2.0			2.5	2.0	2.0	
Minimum Gap (s)	0.2	2.2	2.2	0.2	2.2	0.2			0.2	0.2	0.2	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	34.0	0.0			0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	15.0	0.0			0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Min	None			None	None	None	
Act Effct Green (s)	21.2	76.1	76.1	14.6	74.1	93.8			14.6	11.3	11.3	
Actuated g/C Ratio	0.18	0.63	0.63	0.12	0.62	0.78			0.12	0.09	0.09	
v/c Ratio	0.07	0.55	0.03	0.60	0.60	0.02			0.71	0.23	0.07	
Control Delay	27.1	7.6	0.0	56.8	13.2	0.0			21.6	51.9	30.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Delay	27.1	7.6	0.0	56.8	13.2	0.0			21.6	51.9	30.6	
LOS	C	A	A	E	B	A			C	D	C	
Approach Delay		7.7			18.1						46.8	
Approach LOS		A			B						D	
Queue Length 50th (ft)	7	191	0	87	423	0			56	28	3	
Queue Length 95th (ft)	m17	182	m0	m117	555	m1			115	61	22	
Internal Link Dist (ft)		985			754			238			291	
Turn Bay Length (ft)	140		200	300		100				65		
Base Capacity (vph)	369	3224	1053	886	3498	1231			993	236	230	
Starvation Cap Reductn	0	0	0	0	0	0			16	0	0	
Spillback Cap Reductn	0	0	0	0	0	0			0	0	0	
Storage Cap Reductn	0	0	0	0	0	0			0	0	0	
Reduced v/c Ratio	0.06	0.55	0.03	0.28	0.54	0.02			0.48	0.16	0.05	

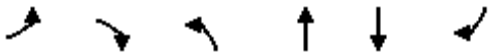
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 103 (86%), Referenced to phase 4:WBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 14.6		Intersection LOS: B	
Intersection Capacity Utilization 66.4%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 18: Mall Drive 1 & Bluebonnet



Lane Group	ø8	ø9	ø10	ø11
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	14.0
Minimum Split (s)	22.0	10.0	22.0	20.0
Total Split (s)	44.0	19.0	22.0	35.0
Total Split (%)	37%	16%	18%	29%
Maximum Green (s)	38.0	13.0	16.0	29.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	4.3
Minimum Gap (s)	3.0	3.0	3.0	2.2
Time Before Reduce (s)	0.0	0.0	0.0	34.0
Time To Reduce (s)	0.0	0.0	0.0	15.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Lane Configurations												
Volume (vph)	266	173	205	262	244	91						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Frt		0.850				0.850						
Flt Protected	0.950		0.950									
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583						
Flt Permitted	0.950		0.420									
Satd. Flow (perm)	1770	1583	782	1863	1863	1583						
Right Turn on Red		Yes				Yes						
Satd. Flow (RTOR)		188				99						
Link Speed (mph)	30			30	30							
Link Distance (ft)	403			1050	819							
Travel Time (s)	9.2			23.9	18.6							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	289	188	223	285	265	99						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	289	188	223	285	265	99						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Right	Left	Left	Left	Right						
Median Width(ft)	36			12	0							
Link Offset(ft)	0			0	0							
Crosswalk Width(ft)	16			16	16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15	9	15			9						
Number of Detectors	1	1	1	2	2	1						
Detector Template	Left	Right	Left	Thru	Thru	Right						
Leading Detector (ft)	20	20	20	100	100	20						
Trailing Detector (ft)	0	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0	0						
Detector 1 Size(ft)	20	20	20	6	6	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)				94	94							
Detector 2 Size(ft)				6	6							
Detector 2 Type				Cl+Ex	Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)				0.0	0.0							
Turn Type	Prot	Free	D.P+P	NA	NA	pm+ov						
Protected Phases	12 13		11	11 14	14	12 13	1	2	3	5	6	8
Permitted Phases		Free	14			14						
Detector Phase	12 13		11	11 14	14	12 13						
Switch Phase												
Minimum Initial (s)			4.0		3.0		3.0	3.0	3.0	21.0	3.0	3.0
Minimum Split (s)			10.0		9.0		11.0	9.0	9.0	27.0	11.0	9.0

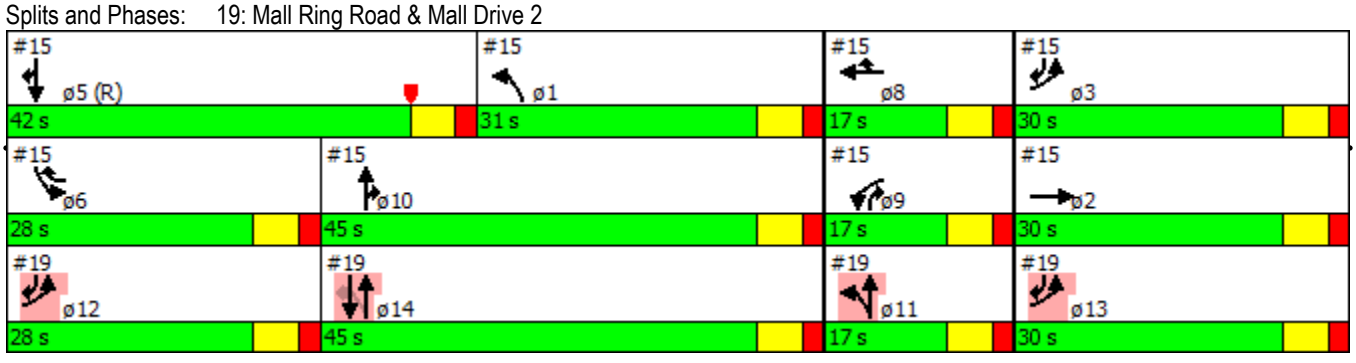
Lane Group	ø9	ø10	ø12	ø13
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	9	10	12	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	21.0	4.0	4.0
Minimum Split (s)	9.0	27.0	22.0	10.0

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Total Split (s)			17.0		45.0		31.0	30.0	30.0	42.0	28.0	17.0
Total Split (%)			14.2%		37.5%		26%	25%	25%	35%	23%	14%
Maximum Green (s)			11.0		39.0		25.0	24.0	24.0	36.0	22.0	11.0
Yellow Time (s)			4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)			2.0		2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0		0.0							
Total Lost Time (s)			6.0		6.0							
Lead/Lag					Lag		Lag			Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0		1.0		3.0	1.0	1.5	4.3	1.0	1.0
Minimum Gap (s)			3.0		0.2		0.2	0.2	0.2	2.2	0.2	0.2
Time Before Reduce (s)			0.0		0.0		0.0	0.0	0.0	28.0	0.0	0.0
Time To Reduce (s)			0.0		0.0		0.0	0.0	0.0	15.0	0.0	0.0
Recall Mode			None		None		None	None	None	C-Min	None	None
Act Effct Green (s)	61.2	120.0	40.8	46.8	31.4	98.7						
Actuated g/C Ratio	0.51	1.00	0.34	0.39	0.26	0.82						
v/c Ratio	0.32	0.12	0.65	0.39	0.54	0.08						
Control Delay	11.2	0.1	50.9	35.3	34.1	0.1						
Queue Delay	0.2	0.0	0.0	0.0	0.0	0.0						
Total Delay	11.4	0.1	50.9	35.3	34.1	0.1						
LOS	B	A	D	D	C	A						
Approach Delay	7.0			42.1	24.9							
Approach LOS	A			D	C							
Queue Length 50th (ft)	57	0	143	185	215	0						
Queue Length 95th (ft)	88	0	225	283	289	0						
Internal Link Dist (ft)	323			970	739							
Turn Bay Length (ft)												
Base Capacity (vph)	896	1583	367	747	605	1313						
Starvation Cap Reductn	189	0	0	0	0	0						
Spillback Cap Reductn	0	0	0	0	0	0						
Storage Cap Reductn	0	0	0	0	0	0						
Reduced v/c Ratio	0.41	0.12	0.61	0.38	0.44	0.08						

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 80 (67%), Referenced to phase 5:SBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 25.0 Intersection LOS: C
Intersection Capacity Utilization 53.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 19: Mall Ring Road & Mall Drive 2

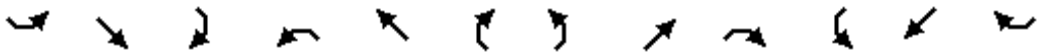


Lane Group	ø9	ø10	ø12	ø13
Total Split (s)	17.0	45.0	28.0	30.0
Total Split (%)	14%	38%	23%	25%
Maximum Green (s)	11.0	39.0	22.0	24.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?			Yes	
Vehicle Extension (s)	1.0	4.3	3.0	3.0
Minimum Gap (s)	0.2	0.2	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	Max	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	189	10	666	0	0	0	0	1957	205	322	1373	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		0	0		0	400		0	300		0
Storage Lanes	1		1	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950	0.957								0.950		
Satd. Flow (prot)	1681	1694	1583	0	0	0	0	6408	1583	1770	3539	0
Flt Permitted	0.950	0.957								0.950		
Satd. Flow (perm)	1681	1694	1583	0	0	0	0	6408	1583	1770	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			454						216			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1072			1024			834			410	
Travel Time (s)		24.4			23.3			12.6			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	199	11	701	0	0	0	0	2060	216	339	1445	0
Shared Lane Traffic (%)	47%											
Lane Group Flow (vph)	105	105	701	0	0	0	0	2060	216	339	1445	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			25	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					2	1	1	2	
Detector Template												
Leading Detector (ft)	45	45	45					290	45	45	290	
Trailing Detector (ft)	-6	-6	-6					284	-6	-6	284	
Detector 1 Position(ft)	-6	-6	-6					-6	-6	-6	-6	
Detector 1 Size(ft)	51	51	51					51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA	Free					NA	Perm	Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2			
Detector Phase	4	4						2	2	1	6	

Lane Group	ø5	ø8
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	5	8
Permitted Phases		
Detector Phase		

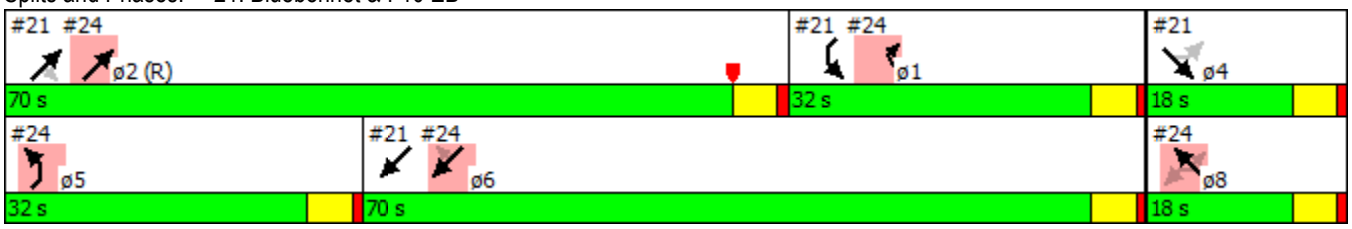


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)	3.0	3.0						10.0	10.0	3.0	10.0	
Minimum Split (s)	18.0	18.0						20.0	20.0	8.0	20.0	
Total Split (s)	18.0	18.0						70.0	70.0	32.0	70.0	
Total Split (%)	15.0%	15.0%						58.3%	58.3%	26.7%	58.3%	
Maximum Green (s)	13.0	13.0						65.0	65.0	27.0	65.0	
Yellow Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0	2.0	2.0	6.0	
Recall Mode	None	None						C-Max	C-Max	None	Max	
Act Effct Green (s)	11.0	11.0	120.0					67.0	67.0	27.0	65.0	
Actuated g/C Ratio	0.09	0.09	1.00					0.56	0.56	0.22	0.54	
v/c Ratio	0.68	0.68	0.44					0.58	0.22	0.85	0.75	
Control Delay	74.3	73.9	0.9					14.2	2.7	39.2	7.2	
Queue Delay	0.0	0.0	0.0					0.0	0.0	0.6	0.9	
Total Delay	74.3	73.9	0.9					14.2	2.7	39.8	8.1	
LOS	E	E	A					B	A	D	A	
Approach Delay		17.8						13.1			14.1	
Approach LOS		B						B			B	
Queue Length 50th (ft)	83	83	0					304	25	241	65	
Queue Length 95th (ft)	146	146	0					211	27	m#316	122	
Internal Link Dist (ft)		992			944			754			330	
Turn Bay Length (ft)	375									300		
Base Capacity (vph)	182	183	1583					3578	979	398	1916	
Starvation Cap Reductn	0	0	0					0	0	5	213	
Spillback Cap Reductn	0	0	0					50	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.58	0.57	0.44					0.58	0.22	0.86	0.85	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 28 (23%), Referenced to phase 2:NET, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 14.3 Intersection LOS: B
Intersection Capacity Utilization 76.2% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: Bluebonnet & I-10 EB



Lane Group	ø5	ø8
Switch Phase		
Minimum Initial (s)	3.0	3.0
Minimum Split (s)	8.0	18.0
Total Split (s)	32.0	18.0
Total Split (%)	27%	15%
Maximum Green (s)	27.0	13.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?		
Vehicle Extension (s)	3.5	2.0
Recall Mode	Max	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	0	0	171	2	350	587	1559	0	0	1524	217
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		525	300		0	0		575
Storage Lanes	0		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt						0.850						0.850
Flt Protected				0.950	0.953		0.950					
Satd. Flow (prot)	0	0	0	1681	1686	1583	3433	3539	0	0	3539	1583
Flt Permitted				0.950	0.953		0.950					
Satd. Flow (perm)	0	0	0	1681	1686	1583	3433	3539	0	0	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						64						228
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		894			1008			410			866	
Travel Time (s)		20.3			22.9			6.2			13.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	180	2	368	618	1641	0	0	1604	228
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	0	0	92	90	368	618	1641	0	0	1604	228
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			40			50	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			2	1
Detector Template												
Leading Detector (ft)				45	45	45	45	290			290	45
Trailing Detector (ft)				-6	-6	-6	-6	284			284	-6
Detector 1 Position(ft)				-6	-6	-6	-6	-6			-6	-6
Detector 1 Size(ft)				51	51	51	51	51			51	51
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call			Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type				Perm	NA	custom	Prot	NA			NA	Perm
Protected Phases					8	1	5	2			6	
Permitted Phases				8		8						6
Detector Phase				8	8	1	5	2			6	6

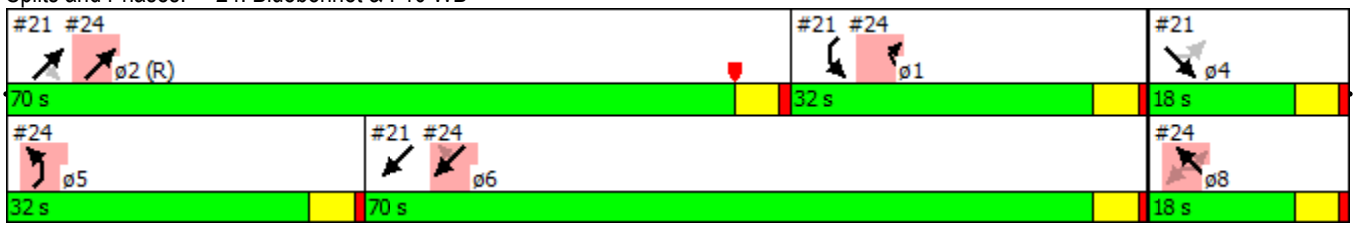
Lane Group	ø4
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)				3.0	3.0	3.0	3.0	10.0			10.0	10.0
Minimum Split (s)				18.0	18.0	8.0	8.0	20.0			20.0	20.0
Total Split (s)				18.0	18.0	32.0	32.0	70.0			70.0	70.0
Total Split (%)				15.0%	15.0%	26.7%	26.7%	58.3%			58.3%	58.3%
Maximum Green (s)				13.0	13.0	27.0	27.0	65.0			65.0	65.0
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
All-Red Time (s)				1.0	1.0	1.0	1.0	1.0			1.0	1.0
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)				5.0	5.0	5.0	5.0	5.0			5.0	5.0
Lead/Lag						Lag	Lead	Lead			Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0	2.0	3.5	2.0			6.0	6.0
Recall Mode				None	None	None	Max	C-Max			Max	Max
Act Effct Green (s)				11.0	11.0	43.0	29.0	67.0			65.0	65.0
Actuated g/C Ratio				0.09	0.09	0.36	0.24	0.56			0.54	0.54
v/c Ratio				0.60	0.58	0.61	0.75	0.83			0.84	0.24
Control Delay				68.0	67.2	30.2	40.1	9.9			24.1	1.7
Queue Delay				0.0	0.0	0.0	0.1	0.0			0.3	0.0
Total Delay				68.0	67.2	30.2	40.2	9.9			24.4	1.7
LOS				E	E	C	D	A			C	A
Approach Delay					42.6			18.2			21.6	
Approach LOS					D			B			C	
Queue Length 50th (ft)				72	70	189	128	205			692	8
Queue Length 95th (ft)				130	128	289	231	714			728	m15
Internal Link Dist (ft)		814			928			330			786	
Turn Bay Length (ft)						525	300					575
Base Capacity (vph)				182	182	608	829	1975			1916	961
Starvation Cap Reductn				0	0	0	6	0			56	0
Spillback Cap Reductn				0	0	0	0	0			37	0
Storage Cap Reductn				0	0	0	0	0			0	0
Reduced v/c Ratio				0.51	0.49	0.61	0.75	0.83			0.86	0.24

Intersection Summary

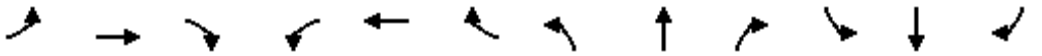
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 28 (23%), Referenced to phase 2:NET, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 22.4 Intersection LOS: C
Intersection Capacity Utilization 76.2% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 24: Bluebonnet & I-10 WB

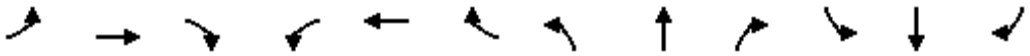


Lane Group	ø4
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	18.0
Total Split (s)	18.0
Total Split (%)	15%
Maximum Green (s)	13.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	75	30	80	198	11	60	84	1635	190	77	1463	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		200	300		175	175		175
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.891			0.897	0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3153	0	3433	1587	1504	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.083			0.059		
Satd. Flow (perm)	1770	3153	0	3433	1587	1504	155	3539	1583	110	3539	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		84										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		475			1072			866			1049	
Travel Time (s)		10.8			24.4			13.1			15.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	79	32	84	208	12	63	88	1721	200	81	1540	27
Shared Lane Traffic (%)						42%						
Lane Group Flow (vph)	79	116	0	208	38	37	88	1721	200	81	1540	27
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		60			60			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4		3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases							2			6		
Detector Phase	7	4		3	8	8 1	5	2	2 3	1	6	6 7

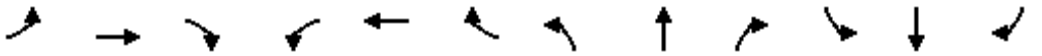


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	5.0		5.0	3.0		3.0	20.0		5.0	20.0	
Minimum Split (s)	8.9	10.9		10.9	8.9		9.6	26.6		11.6	26.6	
Total Split (s)	15.0	13.0		15.0	13.0		16.0	79.0		13.0	76.0	
Total Split (%)	12.5%	10.8%		12.5%	10.8%		13.3%	65.8%		10.8%	63.3%	
Maximum Green (s)	9.1	7.1		9.1	7.1		9.4	72.4		6.4	69.4	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	0.9	0.9		0.9	0.9		1.6	1.6		1.6	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.9	5.9		5.9	5.9		6.6	6.6		6.6	6.6	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		2.5	1.5		1.5	5.0		1.5	5.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	8.1	5.8		10.0	10.0	15.5	83.9	75.6	91.5	75.8	69.9	77.3
Actuated g/C Ratio	0.07	0.05		0.08	0.08	0.13	0.70	0.63	0.76	0.63	0.58	0.64
v/c Ratio	0.66	0.50		0.73	0.29	0.19	0.38	0.77	0.17	0.54	0.75	0.03
Control Delay	79.9	26.8		69.0	60.5	35.3	14.5	7.8	2.5	40.1	20.7	3.5
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay	79.9	26.8		69.0	60.5	35.3	14.5	8.1	2.5	40.1	20.8	3.5
LOS	E	C		E	E	D	B	A	A	D	C	A
Approach Delay		48.3			63.5			7.8			21.4	
Approach LOS		D			E			A			C	
Queue Length 50th (ft)	60	12		81	30	22	6	144	22	23	625	6
Queue Length 95th (ft)	#122	43		#144	70	50	m14	166	m27	66	167	m5
Internal Link Dist (ft)		395			992			786			969	
Turn Bay Length (ft)	75			200		200	300		175	175		175
Base Capacity (vph)	134	265		286	131	196	248	2229	1207	158	2089	1045
Starvation Cap Reductn	0	0		0	0	0	0	109	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	18	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.44		0.73	0.29	0.19	0.35	0.81	0.17	0.51	0.74	0.03

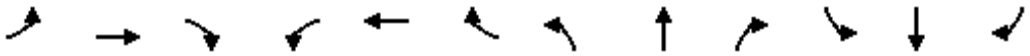
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 44 (37%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 19.0		Intersection LOS: B	
Intersection Capacity Utilization 77.7%		ICU Level of Service D	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 27: Bluebonnet & Blue Cross



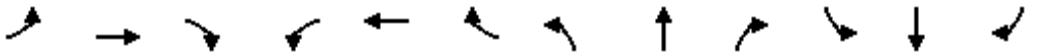
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	3	11	29	0	9	19	1729	22	6	1526	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		130	150		185
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.944			0.970				0.850			0.850
Flt Protected		0.976			0.963		0.950			0.950		
Satd. Flow (prot)	0	1716	0	0	1740	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.826			0.755		0.141			0.107		
Satd. Flow (perm)	0	1452	0	0	1364	0	263	3539	1583	199	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			27				27			27
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1129			1330			1049			1811	
Travel Time (s)		25.7			30.2			15.9			27.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	14	3	12	31	0	9	20	1820	23	6	1606	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	29	0	0	40	0	20	1820	23	6	1606	9
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



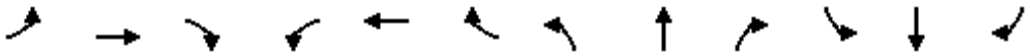
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	11.0	11.0		11.0	11.0		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.0	24.0		24.0	24.0		84.0	84.0	84.0	84.0	84.0	84.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		6.9			6.9		104.5	104.5	104.5	104.5	104.5	104.5
Actuated g/C Ratio		0.06			0.06		0.87	0.87	0.87	0.87	0.87	0.87
v/c Ratio		0.31			0.39		0.09	0.59	0.02	0.03	0.52	0.01
Control Delay		44.9			36.9		1.5	2.6	0.1	4.2	5.9	1.2
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		44.9			36.9		1.5	2.6	0.1	4.2	5.9	1.2
LOS		D			D		A	A	A	A	A	A
Approach Delay		44.9			36.9			2.5			5.8	
Approach LOS		D			D			A			A	
Queue Length 50th (ft)		13			10		3	142	1	1	175	0
Queue Length 95th (ft)		44			45		m0	16	m0	m3	382	m1
Internal Link Dist (ft)		1049			1250			969			1731	
Turn Bay Length (ft)							150		130	150		185
Base Capacity (vph)		300			294		229	3083	1382	173	3083	1382
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.10			0.14		0.09	0.59	0.02	0.03	0.52	0.01

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 63 (53%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 4.8		Intersection LOS: A	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 30: Bluebonnet & Gail



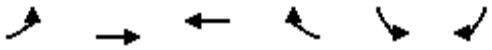
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	1	56	15	1	15	65	1667	19	9	1470	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.895			0.935				0.850			0.850
Flt Protected		0.990			0.976		0.950			0.950		
Satd. Flow (prot)	0	1650	0	0	1700	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.918			0.805		0.149			0.115		
Satd. Flow (perm)	0	1530	0	0	1402	0	278	3539	1583	214	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		48			16				29			29
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1794			2049			1811			2409	
Travel Time (s)		40.8			46.6			27.4			36.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	16	1	59	16	1	16	68	1755	20	9	1547	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	76	0	0	33	0	68	1755	20	9	1547	31
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	9.2	9.2		9.2	9.2		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	34.0	34.0		34.0	34.0		86.0	86.0	86.0	86.0	86.0	86.0
Total Split (%)	28.3%	28.3%		28.3%	28.3%		71.7%	71.7%	71.7%	71.7%	71.7%	71.7%
Maximum Green (s)	27.8	27.8		27.8	27.8		80.0	80.0	80.0	80.0	80.0	80.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.2	1.2		1.2	1.2		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.2			6.2		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		7.8			7.8		103.5	103.5	103.5	103.5	103.5	103.5
Actuated g/C Ratio		0.06			0.06		0.86	0.86	0.86	0.86	0.86	0.86
v/c Ratio		0.53			0.31		0.28	0.58	0.01	0.05	0.51	0.02
Control Delay		37.0			39.9		4.3	3.2	0.3	2.9	3.5	0.9
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		37.0			39.9		4.3	3.2	0.3	2.9	3.5	0.9
LOS		D			D		A	A	A	A	A	A
Approach Delay		37.0			39.9			3.2			3.5	
Approach LOS		D			D			A			A	
Queue Length 50th (ft)		21			13		2	33	0	1	135	0
Queue Length 95th (ft)		70			45		m27	628	m1	5	221	6
Internal Link Dist (ft)		1714			1969			1731			2329	
Turn Bay Length (ft)							150		150	150		150
Base Capacity (vph)		391			337		239	3051	1368	184	3051	1368
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.19			0.10		0.28	0.58	0.01	0.05	0.51	0.02

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 2 (2%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 4.4		Intersection LOS: A	
Intersection Capacity Utilization 69.5%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 33: Bluebonnet & Oliphant



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Lane Configurations												
Volume (vph)	159	369	226	290	166	109						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.95						
Frt				0.850	0.941							
Flt Protected	0.950				0.971							
Satd. Flow (prot)	1770	1863	1863	1583	3302	0						
Flt Permitted	0.383				0.971							
Satd. Flow (perm)	713	1863	1863	1583	3302	0						
Right Turn on Red				Yes		Yes						
Satd. Flow (RTOR)				315	118							
Link Speed (mph)		30	30		30							
Link Distance (ft)		819	802		318							
Travel Time (s)		18.6	18.2		7.2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	173	401	246	315	180	118						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	173	401	246	315	298	0						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Right	Left	Right						
Median Width(ft)		12	0		36							
Link Offset(ft)		0	0		0							
Crosswalk Width(ft)		16	16		16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15			9	15	9						
Number of Detectors	1	2	2	1	1							
Detector Template	Left	Thru	Thru	Right	Left							
Leading Detector (ft)	20	100	100	20	20							
Trailing Detector (ft)	0	0	0	0	0							
Detector 1 Position(ft)	0	0	0	0	0							
Detector 1 Size(ft)	20	6	6	20	20							
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex							
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0							
Detector 2 Position(ft)		94	94									
Detector 2 Size(ft)		6	6									
Detector 2 Type		Cl+Ex	Cl+Ex									
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0									
Turn Type	D.P+P	NA	NA	pm+ov	Prot							
Protected Phases	8	8 11	11	9 10	9 10		1	2	4	5	7	9
Permitted Phases	11			11								
Detector Phase	8	8 11	11	9 10	9 10							
Switch Phase												
Minimum Initial (s)	4.0		14.0				4.0	4.0	14.0	4.0	14.0	4.0
Minimum Split (s)	22.0		20.0				10.0	10.0	20.0	10.0	20.0	10.0

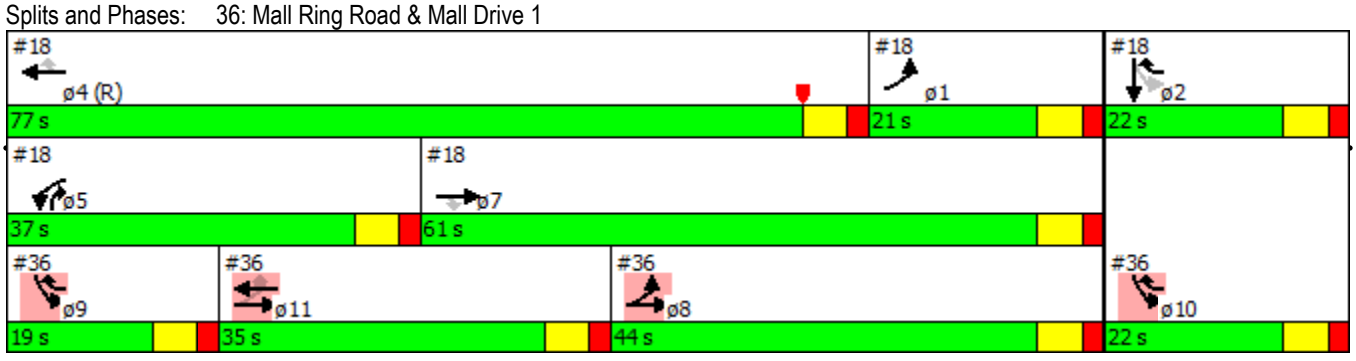
Lane Group	ø10
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	10
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	22.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Total Split (s)	44.0		35.0				21.0	22.0	77.0	37.0	61.0	19.0
Total Split (%)	36.7%		29.2%				18%	18%	64%	31%	51%	16%
Maximum Green (s)	38.0		29.0				15.0	16.0	71.0	31.0	55.0	13.0
Yellow Time (s)	4.0		4.0				4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0				2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0									
Total Lost Time (s)	6.0		6.0									
Lead/Lag			Lag				Lag		Lead	Lead	Lag	Lead
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0		4.3				2.5	2.0	4.3	2.5	4.3	3.0
Minimum Gap (s)	3.0		2.2				0.2	0.2	2.2	0.2	2.2	3.0
Time Before Reduce (s)	0.0		34.0				0.0	0.0	34.0	0.0	0.0	0.0
Time To Reduce (s)	0.0		15.0				0.0	0.0	15.0	0.0	0.0	0.0
Recall Mode	None		None				None	None	C-Min	None	None	None
Act Effct Green (s)	78.5	84.5	24.7	54.3	23.5							
Actuated g/C Ratio	0.65	0.70	0.21	0.45	0.20							
v/c Ratio	0.18	0.31	0.64	0.35	0.40							
Control Delay	2.6	2.5	50.5	2.6	70.4							
Queue Delay	0.0	0.0	0.0	0.0	0.0							
Total Delay	2.6	2.5	50.5	2.6	70.4							
LOS	A	A	D	A	E							
Approach Delay		2.5	23.6		70.4							
Approach LOS		A	C		E							
Queue Length 50th (ft)	7	16	176	0	104							
Queue Length 95th (ft)	33	80	239	38	143							
Internal Link Dist (ft)		739	722		238							
Turn Bay Length (ft)												
Base Capacity (vph)	939	1289	464	879	899							
Starvation Cap Reductn	0	0	0	0	0							
Spillback Cap Reductn	0	0	0	0	0							
Storage Cap Reductn	0	0	0	0	0							
Reduced v/c Ratio	0.18	0.31	0.53	0.36	0.33							

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 103 (86%), Referenced to phase 4:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 24.9 Intersection LOS: C
Intersection Capacity Utilization 43.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 36: Mall Ring Road & Mall Drive 1

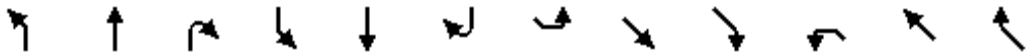


Lane Group	ø10
Total Split (s)	22.0
Total Split (%)	18%
Maximum Green (s)	16.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Minimum Gap (s)	3.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

M.29 2037 NO BUILD PM – ESSEN LANE

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	245	533	109	461	1098	720	559	1325	168	184	901	262
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	800		0	300		0	150		0
Storage Lanes	1		0	1		1	2		0	1		0
Taper Length (ft)	150			25			200			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Frt		0.974				0.850		0.983			0.966	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3447	0	1770	3539	1583	3433	3479	0	1770	3419	0
Flt Permitted	0.200			0.200			0.950			0.950		
Satd. Flow (perm)	373	3447	0	373	3539	1583	3433	3479	0	1770	3419	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15				326		10			26	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1877			1475			2128			1788	
Travel Time (s)		28.4			22.3			32.2			27.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	258	561	115	485	1156	758	588	1395	177	194	948	276
Shared Lane Traffic (%)												
Lane Group Flow (vph)	258	676	0	485	1156	758	588	1572	0	194	1224	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	0	1	1		1	1	
Detector Template												
Leading Detector (ft)	45	162		45	162	0	45	45		45	45	
Trailing Detector (ft)	0	156		0	156	0	0	0		0	0	
Detector 1 Position(ft)	0	-6		0	-6	0	0	0		0	0	
Detector 1 Size(ft)	45	51		45	51	50	45	45		45	45	
Detector 1 Type	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2		2						
Detector Phase	1	6		5	2	2	3	8		7	4	



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	5.0	10.0		3.0	10.0	
Minimum Split (s)	8.8	15.8		8.8	15.8	15.8	11.5	16.5		9.5	16.5	
Total Split (s)	19.0	39.0		32.0	52.0	52.0	27.0	59.0		20.0	52.0	
Total Split (%)	12.7%	26.0%		21.3%	34.7%	34.7%	18.0%	39.3%		13.3%	34.7%	
Maximum Green (s)	13.2	33.2		26.2	46.2	46.2	20.5	52.5		13.5	45.5	
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8	5.5	5.5		5.5	5.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8		5.8	5.8	5.8	6.5	6.5		6.5	6.5	
Lead/Lag	Lag	Lag		Lead	Lead	Lead	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	6.0		2.0	6.0	6.0	2.0	6.0		2.0	6.0	
Minimum Gap (s)	0.2	4.0		0.2	4.0	4.0	0.2	4.0		0.2	4.0	
Time Before Reduce (s)	0.0	20.0		0.0	20.0	20.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	
Act Effct Green (s)	33.2	33.2		46.2	46.2	46.2	20.5	52.5		13.5	45.5	
Actuated g/C Ratio	0.22	0.22		0.31	0.31	0.31	0.14	0.35		0.09	0.30	
v/c Ratio	1.26	0.87		1.35	1.06	1.06	1.25	1.28		1.22	1.16	
Control Delay	199.6	68.2		213.1	93.9	79.8	181.5	173.9		196.8	127.7	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	199.6	68.2		213.1	93.9	79.8	181.5	173.9		196.8	127.7	
LOS	F	E		F	F	E	F	F		F	F	
Approach Delay		104.5			113.5			176.0			137.2	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~293	332		~572	~652	~581	~369	~1026		~232	~735	
Queue Length 95th (ft)	#498	#431		#800	#792	#835	#491	#1167		#396	#877	
Internal Link Dist (ft)		1797			1395			2048			1708	
Turn Bay Length (ft)	250			800			300			150		
Base Capacity (vph)	205	774		358	1090	713	469	1224		159	1055	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	1.26	0.87		1.35	1.06	1.06	1.25	1.28		1.22	1.16	

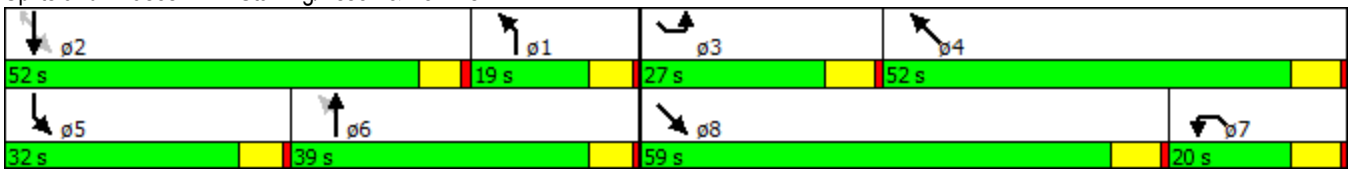
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.35			
Intersection Signal Delay: 136.7		Intersection LOS: F	
Intersection Capacity Utilization 116.6%		ICU Level of Service H	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Starring/Essen & Perkins



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	0	2771	623	543	1674	0	19	0	762	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		0	0		800	0		0
Storage Lanes	1		0	2		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.86	0.86	0.97	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt		0.972							0.850			
Flt Protected				0.950			0.950	0.950				
Satd. Flow (prot)	0	6228	0	3433	3539	0	1681	1681	1583	0	0	0
Flt Permitted				0.950			0.950	0.950				
Satd. Flow (perm)	0	6228	0	3433	3539	0	1681	1681	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		88							191			
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		721			409			1012			1106	
Travel Time (s)		10.9			6.2			23.0			25.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	2917	656	572	1762	0	20	0	802	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	0	3573	0	572	1762	0	10	10	802	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2		1	1	0			
Detector Template							Left					
Leading Detector (ft)		290		45	290		20	45	0			
Trailing Detector (ft)		284		0	284		0	0	0			
Detector 1 Position(ft)		-6		0	-6		0	0	0			
Detector 1 Size(ft)		51		45	51		20	45	20			
Detector 1 Type		Call		Cl+Ex	Call		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Queue (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Delay (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA		Prot	NA		Perm	NA	Free			
Protected Phases		6		5	5 6			8				
Permitted Phases							8		Free			
Detector Phase		6		5	5 6		8	8				

Lane Group	ø1	ø2	ø4
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	1	2	4
Permitted Phases			
Detector Phase			

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)		10.0		3.0			3.0	3.0				
Minimum Split (s)		16.0		9.0			9.0	9.0				
Total Split (s)		80.0		29.0			11.0	11.0				
Total Split (%)		66.7%		24.2%			9.2%	9.2%				
Maximum Green (s)		74.0		23.0			5.0	5.0				
Yellow Time (s)		5.0		5.0			5.0	5.0				
All-Red Time (s)		1.0		1.0			1.0	1.0				
Lost Time Adjust (s)		0.0		0.0			0.0	0.0				
Total Lost Time (s)		6.0		6.0			6.0	6.0				
Lead/Lag		Lag					Lead	Lead				
Lead-Lag Optimize?		Yes					Yes	Yes				
Vehicle Extension (s)		4.0		2.5			2.0	2.0				
Minimum Gap (s)		2.0		0.2			0.2	0.2				
Time Before Reduce (s)		10.0		0.0			0.0	0.0				
Time To Reduce (s)		20.0		0.0			0.0	0.0				
Recall Mode		Max		C-Max			Max	Max				
Act Effct Green (s)		74.0		23.0	103.0		5.0	5.0	120.0			
Actuated g/C Ratio		0.62		0.19	0.86		0.04	0.04	1.00			
v/c Ratio		0.92		0.87	0.58		0.14	0.14	0.51			
Control Delay		11.5		33.1	9.6		60.1	60.1	1.2			
Queue Delay		14.8		0.0	0.9		0.0	0.0	0.0			
Total Delay		26.3		33.1	10.6		60.1	60.1	1.2			
LOS		C		C	B		E	E	A			
Approach Delay		26.3			16.1			2.6				
Approach LOS		C			B			A				
Queue Length 50th (ft)		539		214	180		8	8	0			
Queue Length 95th (ft)		m510		m#300	252		27	27	0			
Internal Link Dist (ft)		641			329			932			1026	
Turn Bay Length (ft)									800			
Base Capacity (vph)		3874		657	3037		70	70	1583			
Starvation Cap Reductn		394		0	907		0	0	0			
Spillback Cap Reductn		105		0	0		0	0	0			
Storage Cap Reductn		0		0	0		0	0	0			
Reduced v/c Ratio		1.03		0.87	0.83		0.14	0.14	0.51			

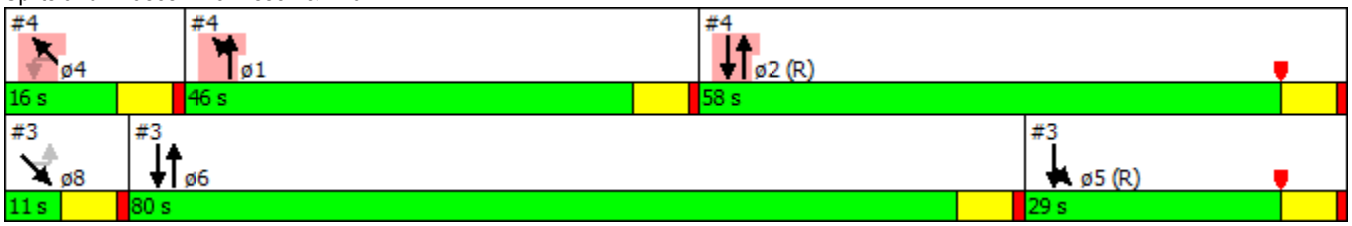
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 34 (28%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 19.9		Intersection LOS: B	
Intersection Capacity Utilization 84.4%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Lane Group	ø1	ø2	ø4
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	46.0	58.0	16.0
Total Split (%)	38%	48%	13%
Maximum Green (s)	40.0	52.0	10.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag		Lead
Lead-Lag Optimize?			
Vehicle Extension (s)	2.5	4.0	4.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	Max	C-Max	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Essen & I-10 EB



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	905	1885	0	0	1990	81	0	0	0	227	0	418
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	550		200	0		0	750		0
Storage Lanes	2		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.86	0.86	1.00	1.00	1.00	0.95	0.95	1.00
Frt					0.994							0.850
Flt Protected	0.950									0.950	0.950	
Satd. Flow (prot)	3433	3539	0	0	6369	0	0	0	0	1681	1681	1583
Flt Permitted	0.950									0.950	0.950	
Satd. Flow (perm)	3433	3539	0	0	6369	0	0	0	0	1681	1681	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					8							191
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		409			805			936			1390	
Travel Time (s)		6.2			12.2			21.3			31.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	953	1984	0	0	2095	85	0	0	0	239	0	440
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	953	1984	0	0	2180	0	0	0	0	119	120	440
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			20			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2					1	1	0
Detector Template										Left		
Leading Detector (ft)	45	290			290					20	45	0
Trailing Detector (ft)	0	284			284					0	0	0
Detector 1 Position(ft)	0	-6			-6					0	0	0
Detector 1 Size(ft)	45	51			51					20	45	20
Detector 1 Type	Cl+Ex	Call			Call					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA			NA					Perm	NA	Free
Protected Phases	1	1 2			2						4	
Permitted Phases										4		Free
Detector Phase	1	1 2			2					4	4	

Lane Group	ø5	ø6	ø8
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	5	6	8
Permitted Phases			
Detector Phase			

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0				10.0					3.0	3.0	
Minimum Split (s)	9.0				16.0					9.0	9.0	
Total Split (s)	46.0				58.0					16.0	16.0	
Total Split (%)	38.3%				48.3%					13.3%	13.3%	
Maximum Green (s)	40.0				52.0					10.0	10.0	
Yellow Time (s)	5.0				5.0					5.0	5.0	
All-Red Time (s)	1.0				1.0					1.0	1.0	
Lost Time Adjust (s)	0.0				0.0					0.0	0.0	
Total Lost Time (s)	6.0				6.0					6.0	6.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5				4.0					4.0	4.0	
Minimum Gap (s)	0.2				2.0					0.2	0.2	
Time Before Reduce (s)	0.0				10.0					0.0	0.0	
Time To Reduce (s)	0.0				20.0					0.0	0.0	
Recall Mode	Max				C-Max					Max	Max	
Act Effct Green (s)	40.0	98.0			52.0					10.0	10.0	120.0
Actuated g/C Ratio	0.33	0.82			0.43					0.08	0.08	1.00
v/c Ratio	0.83	0.69			0.79					0.85	0.86	0.28
Control Delay	37.2	0.9			31.5					98.9	100.2	0.4
Queue Delay	11.6	1.7			0.0					0.0	0.0	0.0
Total Delay	48.7	2.6			31.5					98.9	100.2	0.4
LOS	D	A			C					F	F	A
Approach Delay		17.6			31.5						35.3	
Approach LOS		B			C						D	
Queue Length 50th (ft)	264	3			245					97	97	0
Queue Length 95th (ft)	m331	3			259					#211	#215	0
Internal Link Dist (ft)		329			725			856			1310	
Turn Bay Length (ft)										750		
Base Capacity (vph)	1144	2890			2764					140	140	1583
Starvation Cap Reductn	182	685			0					0	0	0
Spillback Cap Reductn	0	15			0					0	0	7
Storage Cap Reductn	0	0			0					0	0	0
Reduced v/c Ratio	0.99	0.90			0.79					0.85	0.86	0.28

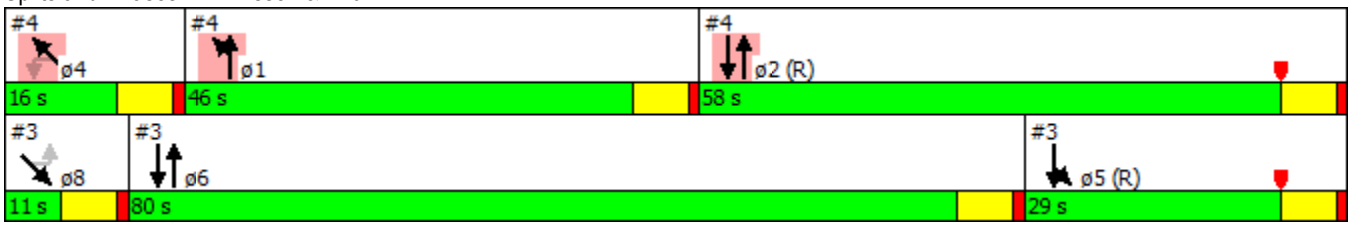
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 34 (28%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 24.9		Intersection LOS: C	
Intersection Capacity Utilization 84.4%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

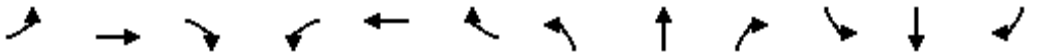
Lane Group	ø5	ø6	ø8
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	29.0	80.0	11.0
Total Split (%)	24%	67%	9%
Maximum Green (s)	23.0	74.0	5.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lead
Lead-Lag Optimize?		Yes	Yes
Vehicle Extension (s)	2.5	4.0	2.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	C-Max	Max	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

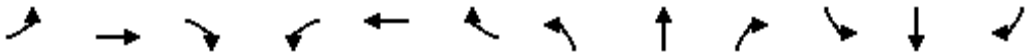
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Essen & I-10 WB





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	138	1	57	58	0	446	29	2776	24	197	2267	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	300		300	150		200	200		0
Storage Lanes	1		0	0		1	1		1	1		0
Taper Length (ft)	25			25			100			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Frt		0.852				0.850			0.850		0.996	
Flt Protected	0.950				0.950		0.950			0.950		
Satd. Flow (prot)	1770	1587	0	0	1770	1583	1770	5085	1583	1770	5065	0
Flt Permitted	0.717				0.717		0.950			0.950		
Satd. Flow (perm)	1336	1587	0	0	1336	1583	1770	5085	1583	1770	5065	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		60							82		7	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		447			896			887			215	
Travel Time (s)		10.2			20.4			13.4			3.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	145	1	60	61	0	469	31	2922	25	207	2386	66
Shared Lane Traffic (%)												
Lane Group Flow (vph)	145	61	0	0	61	469	31	2922	25	207	2452	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left		Right			Right			
Leading Detector (ft)	45	45		20	45	20	45	290	20	45	256	
Trailing Detector (ft)	0	0		0	0	0	0	284	0	0	250	
Detector 1 Position(ft)	0	0		0	0	0	0	-6	0	0	-6	
Detector 1 Size(ft)	45	45		20	45	20	45	51	20	45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			250	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA	pt+ov	Prot	NA	Perm	Prot	NA	
Protected Phases		8			4	4 5	1	6		5	2	
Permitted Phases	8			4					6			
Detector Phase	8	8		4	4	4 5	1	6	6	5	2	



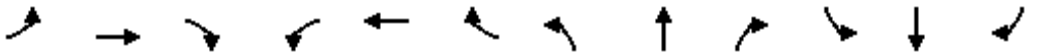
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	15.0	15.0	3.0	15.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	21.0	21.0	11.0	21.0	
Total Split (s)	21.0	21.0		21.0	21.0		12.0	76.0	76.0	23.0	87.0	
Total Split (%)	17.5%	17.5%		17.5%	17.5%		10.0%	63.3%	63.3%	19.2%	72.5%	
Maximum Green (s)	15.0	15.0		15.0	15.0		6.0	70.0	70.0	17.0	81.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0	6.0	6.0	6.0	
Lead/Lag							Lag	Lag	Lag	Lead	Lead	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.5	2.5	2.0	2.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0	2.0	0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0	10.0	0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0	20.0	0.0	20.0	
Recall Mode	None	None		None	None		None	Min	Min	None	C-Min	
Act Effct Green (s)	15.0	15.0			15.0	38.0	5.6	70.0	70.0	17.0	88.2	
Actuated g/C Ratio	0.12	0.12			0.12	0.32	0.05	0.58	0.58	0.14	0.74	
v/c Ratio	0.87	0.24			0.37	0.94	0.38	0.99	0.03	0.83	0.66	
Control Delay	94.1	14.7			55.1	67.7	62.3	31.0	0.2	80.5	3.6	
Queue Delay	0.0	0.0			0.0	0.0	0.0	20.5	0.0	0.0	0.1	
Total Delay	94.1	14.7			55.1	67.7	62.3	51.5	0.2	80.5	3.7	
LOS	F	B			E	E	E	D	A	F	A	
Approach Delay		70.6			66.2			51.2			9.7	
Approach LOS		E			E			D			A	
Queue Length 50th (ft)	112	1			44	352	25	829	0	141	39	
Queue Length 95th (ft)	#233	41			89	#560	m24	m823	m0	#282	53	
Internal Link Dist (ft)		367			816			807			135	
Turn Bay Length (ft)	200					300	150		200	200		
Base Capacity (vph)	167	250			167	501	88	2966	957	250	3724	
Starvation Cap Reductn	0	0			0	0	0	13	0	0	165	
Spillback Cap Reductn	0	0			0	0	0	188	0	0	0	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.87	0.24			0.37	0.94	0.35	1.05	0.03	0.83	0.69	

Intersection Summary

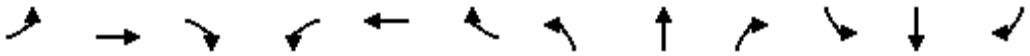
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 108 (90%), Referenced to phase 2:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 35.8 Intersection LOS: D
Intersection Capacity Utilization 103.9% ICU Level of Service G
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Essen & Margaret Ann



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	14	6	7	79	6	261	1	3119	138	87	2337	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	100		0	350		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			150		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.966				0.850		0.994			0.999	
Flt Protected		0.974			0.955		0.950			0.950		
Satd. Flow (prot)	0	1753	0	0	1779	1583	1770	5055	0	1770	5080	0
Flt Permitted		0.822			0.720		0.950			0.950		
Satd. Flow (perm)	0	1479	0	0	1341	1583	1770	5055	0	1770	5080	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		7						12			1	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		496			1336			469			721	
Travel Time (s)		11.3			30.4			7.1			10.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	15	6	7	83	6	275	1	3283	145	92	2460	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	28	0	0	89	275	1	3428	0	92	2474	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45	45	45	141		45	290	
Trailing Detector (ft)	0	0		0	0	0	0	135		0	284	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	20	45		20	45	45	45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								135			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases		8			4	4 5	1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4	4 5	1	6		5	2	

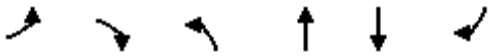


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		4.0	15.0		3.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	21.0		9.0	21.0	
Total Split (s)	21.0	21.0		21.0	21.0		11.0	86.0		13.0	88.0	
Total Split (%)	17.5%	17.5%		17.5%	17.5%		9.2%	71.7%		10.8%	73.3%	
Maximum Green (s)	15.0	15.0		15.0	15.0		5.0	80.0		7.0	82.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		3.0	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)		15.0			15.0	28.0	5.4	80.0		7.0	90.8	
Actuated g/C Ratio		0.12			0.12	0.23	0.04	0.67		0.06	0.76	
v/c Ratio		0.15			0.53	0.75	0.01	1.02		0.89	0.64	
Control Delay		40.0			61.8	56.4	67.0	28.2		114.3	11.2	
Queue Delay		0.0			0.0	0.0	0.0	24.3		0.0	0.0	
Total Delay		40.0			61.8	56.4	67.0	52.5		114.3	11.3	
LOS		D			E	E	E	D		F	B	
Approach Delay		40.0			57.7			52.5			15.0	
Approach LOS		D			E			D			B	
Queue Length 50th (ft)		15			66	199	0	~458		69	517	
Queue Length 95th (ft)		44			122	#318	m0	m#1053		m#173	512	
Internal Link Dist (ft)		416			1256			389			641	
Turn Bay Length (ft)						100	100			350		
Base Capacity (vph)		191			167	369	80	3374		103	3844	
Starvation Cap Reductn		0			0	0	0	43		0	59	
Spillback Cap Reductn		0			0	0	0	193		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.15			0.53	0.75	0.01	1.08		0.89	0.65	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 109 (91%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.02			
Intersection Signal Delay: 37.6		Intersection LOS: D	
Intersection Capacity Utilization 97.8%		ICU Level of Service F	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Essen & Essen Park



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	232	104	3257	2295	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	50			0
Storage Lanes	0	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91
Frt		0.865			0.992	
Flt Protected			0.950			
Satd. Flow (prot)	0	1611	1770	5085	5045	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	1611	1770	5085	5045	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	458			215	469	
Travel Time (s)	10.4			3.3	7.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	252	113	3540	2495	139
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	252	113	3540	2634	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 68.2%		ICU Level of Service C	
Analysis Period (min) 15			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	614	344	2114	299	149	1457
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		0	150	
Storage Lanes	2	1		0	1	
Taper Length (ft)	25				100	
Lane Util. Factor	0.97	1.00	0.91	0.91	1.00	0.95
Frt		0.850	0.981			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	4989	0	1770	3539
Flt Permitted	0.950				0.053	
Satd. Flow (perm)	3433	1583	4989	0	99	3539
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			36			
Link Speed (mph)	30		45			45
Link Distance (ft)	1306		805			993
Travel Time (s)	29.7		12.2			15.0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	646	362	2225	315	157	1534
Shared Lane Traffic (%)						
Lane Group Flow (vph)	646	362	2540	0	157	1534
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	52		20			25
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2		1	2
Detector Template						
Leading Detector (ft)	45	45	290		45	290
Trailing Detector (ft)	0	0	284		0	284
Detector 1 Position(ft)	0	0	-6		0	-6
Detector 1 Size(ft)	45	45	51		45	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			284			284
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm	pt+ov	NA		pm+pt	NA
Protected Phases		5 8	6		5	2
Permitted Phases	8				2	
Detector Phase	8	5 8	6		5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	4.0		15.0		5.0	15.0
Minimum Split (s)	20.0		21.0		11.0	21.0
Total Split (s)	30.0		75.0		15.0	90.0
Total Split (%)	25.0%		62.5%		12.5%	75.0%
Maximum Green (s)	26.0		69.0		9.0	84.0
Yellow Time (s)	3.5		5.0		5.0	5.0
All-Red Time (s)	0.5		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.0		6.0		6.0	6.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		5.0		2.0	5.0
Minimum Gap (s)	3.0		3.0		0.2	3.0
Time Before Reduce (s)	0.0		15.0		0.0	15.0
Time To Reduce (s)	0.0		15.0		0.0	15.0
Recall Mode	None		C-Min		None	Min
Walk Time (s)	5.0					
Flash Dont Walk (s)	11.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	25.7	38.7	69.3		84.3	84.3
Actuated g/C Ratio	0.21	0.32	0.58		0.70	0.70
v/c Ratio	0.88	0.71	0.88		0.81	0.62
Control Delay	60.3	44.6	11.4		55.4	5.8
Queue Delay	0.0	0.0	0.1		0.0	0.0
Total Delay	60.3	44.6	11.6		55.4	5.8
LOS	E	D	B		E	A
Approach Delay	54.6		11.6			10.4
Approach LOS	D		B			B
Queue Length 50th (ft)	250	245	96		73	189
Queue Length 95th (ft)	#345	359	374		m#144	m190
Internal Link Dist (ft)	1226		725			913
Turn Bay Length (ft)		100			150	
Base Capacity (vph)	751	517	2908		194	2495
Starvation Cap Reductn	0	0	27		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.86	0.70	0.88		0.81	0.61

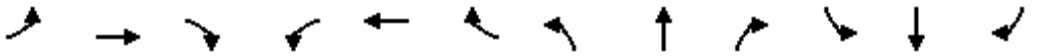
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 19 (16%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 19.5		Intersection LOS: B	
Intersection Capacity Utilization 86.6%		ICU Level of Service E	

Analysis Period (min) 15

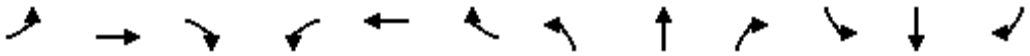
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 17: Essen & United Plaza South



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1103	86	187	184	40	380	36	1347	65	287	1768	327
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	425		50	280		280	150		0	550		300
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	100			200			25			100		
Lane Util. Factor	0.91	0.91	1.00	0.95	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Frt			0.850			0.850		0.993				0.850
Flt Protected	0.950	0.962		0.950	0.969		0.950			0.950		
Satd. Flow (prot)	3221	1631	1583	1681	1715	1583	1770	5050	0	1770	5085	1583
Flt Permitted	0.950	0.962		0.950	0.969		0.950			0.950		
Satd. Flow (perm)	3221	1631	1583	1681	1715	1583	1770	5050	0	1770	5085	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								6				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1908			1396			1335			887	
Travel Time (s)		43.4			31.7			20.2			13.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1161	91	197	194	42	400	38	1418	68	302	1861	344
Shared Lane Traffic (%)	28%			40%								
Lane Group Flow (vph)	836	416	197	116	120	400	38	1486	0	302	1861	344
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		45			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	0	1	1	1	1	2		1	2	2
Detector Template												
Leading Detector (ft)	45	45	0	45	45	45	45	290		45	256	45
Trailing Detector (ft)	0	0	0	0	0	0	0	284		0	284	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	-6		0	-6	-6
Detector 1 Size(ft)	45	45	20	45	45	45	45	51		45	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Call
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	0
Detector 2 Size(ft)								6			-28	45
Detector 2 Type								Extend			Extend	Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	0.0
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4	4 5	1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4	4 5	1	6		5	2	2 8

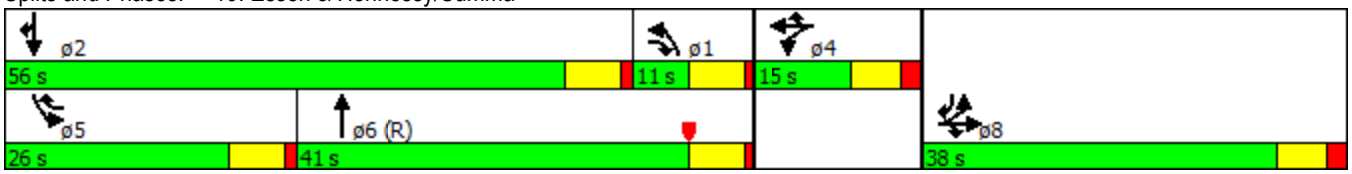


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.5	14.5		14.5	14.5		9.0	21.0		9.0	21.0	
Total Split (s)	38.0	38.0		15.0	15.0		11.0	41.0		26.0	56.0	
Total Split (%)	31.7%	31.7%		12.5%	12.5%		9.2%	34.2%		21.7%	46.7%	
Maximum Green (s)	31.5	31.5		8.5	8.5		5.0	35.0		20.0	50.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	31.5	31.5	37.9	8.5	8.5	28.0	6.9	35.0		20.0	48.1	86.1
Actuated g/C Ratio	0.26	0.26	0.32	0.07	0.07	0.23	0.06	0.29		0.17	0.40	0.72
v/c Ratio	0.99	0.97	0.39	0.97	0.99	1.08	0.37	1.01		1.02	0.91	0.30
Control Delay	72.8	81.4	28.8	132.1	135.7	103.4	45.1	53.5		122.1	39.9	11.2
Queue Delay	10.4	8.7	0.0	0.0	0.0	7.1	0.0	3.5		0.0	0.0	0.0
Total Delay	83.2	90.1	28.8	132.1	135.7	110.5	45.1	57.0		122.1	39.9	11.2
LOS	F	F	C	F	F	F	D	E		F	D	B
Approach Delay		77.8			119.2			56.7			45.8	
Approach LOS		E			F			E			D	
Queue Length 50th (ft)	355	351	88	95	100	~249	31	~455		~257	299	116
Queue Length 95th (ft)	#500	#576	140	#225	#231	#440	m52	#532		#442	382	199
Internal Link Dist (ft)		1828			1316			1255			807	
Turn Bay Length (ft)	425		50	280		280	150			550		300
Base Capacity (vph)	845	428	500	119	121	369	102	1477		295	2118	1160
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	32	16	0	0	0	37	0	18		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	1.03	1.01	0.39	0.97	0.99	1.20	0.37	1.02		1.02	0.88	0.30

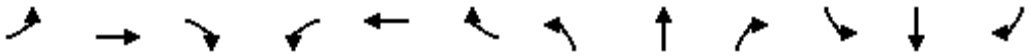
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 80 (67%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 140			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.08			
Intersection Signal Delay: 63.8		Intersection LOS: E	
Intersection Capacity Utilization 88.7%		ICU Level of Service E	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Essen & Hennessy/Summa



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	177	168	245	72	83	75	83	1196	75	108	1963	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	150		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.911			0.929			0.991			0.995	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1697	0	1770	1730	0	1770	5040	0	1770	5060	0
Flt Permitted	0.569			0.134			0.085			0.163		
Satd. Flow (perm)	1060	1697	0	250	1730	0	158	5040	0	304	5060	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		65			40			11			6	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1062			1416			1475			1335	
Travel Time (s)		24.1			32.2			22.3			20.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	186	177	258	76	87	79	87	1259	79	114	2066	72
Shared Lane Traffic (%)												
Lane Group Flow (vph)	186	435	0	76	166	0	87	1338	0	114	2138	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template												
Leading Detector (ft)	45	45		45	45		45	290		45	290	
Trailing Detector (ft)	0	0		0	0		0	284		0	284	
Detector 1 Position(ft)	0	0		0	0		0	-6		0	-6	
Detector 1 Size(ft)	45	45		45	45		45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		1	6		5	2	

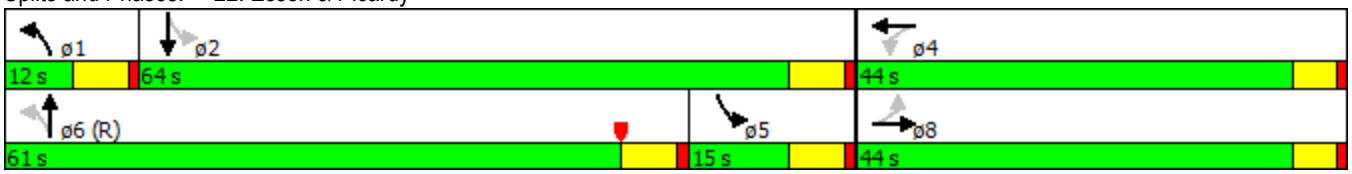


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		2.0	15.0		3.0	15.0	
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	21.0		9.0	21.0	
Total Split (s)	44.0	44.0		44.0	44.0		12.0	61.0		15.0	64.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		10.0%	50.8%		12.5%	53.3%	
Maximum Green (s)	39.0	39.0		39.0	39.0		6.0	55.0		9.0	58.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	31.5	31.5		31.5	31.5		52.8	52.8		65.5	65.5	
Actuated g/C Ratio	0.26	0.26		0.26	0.26		0.44	0.44		0.55	0.55	
v/c Ratio	0.67	0.88		1.17	0.34		0.58	0.60		0.29	0.77	
Control Delay	50.8	55.1		201.8	27.4		39.9	28.3		12.2	12.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	50.8	55.1		201.8	27.4		39.9	28.3		12.2	12.9	
LOS	D	E		F	C		D	C		B	B	
Approach Delay		53.8			82.2			29.0			12.9	
Approach LOS		D			F			C			B	
Queue Length 50th (ft)	128	279		~68	77		40	285		28	197	
Queue Length 95th (ft)	196	382		#160	129		#95	378		m19	m120	
Internal Link Dist (ft)		982			1336			1395			1255	
Turn Bay Length (ft)	225			150			150			150		
Base Capacity (vph)	344	595		81	589		150	2440		393	2766	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.54	0.73		0.94	0.28		0.58	0.55		0.29	0.77	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 77 (64%), Referenced to phase 6:NBTL, Start of Yellow			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.17			
Intersection Signal Delay: 27.2		Intersection LOS: C	
Intersection Capacity Utilization 90.2%		ICU Level of Service E	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Essen & Picardy



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	490	172	2590	12	54	1222
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	125		125	125	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.88	0.91	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2787	5085	1583	1770	3539
Flt Permitted	0.950				0.057	
Satd. Flow (perm)	1770	2787	5085	1583	106	3539
Right Turn on Red		Yes		No		
Satd. Flow (RTOR)		142				
Link Speed (mph)	30		45			45
Link Distance (ft)	1179		993			571
Travel Time (s)	26.8		15.0			8.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	516	181	2726	13	57	1286
Shared Lane Traffic (%)						
Lane Group Flow (vph)	516	181	2726	13	57	1286
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	42		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template						
Leading Detector (ft)	45	45	290	45	45	290
Trailing Detector (ft)	0	0	284	0	-6	284
Detector 1 Position(ft)	0	0	-6	0	-6	-6
Detector 1 Size(ft)	45	45	51	45	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			284			284
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	pt+ov	pm+pt	NA
Protected Phases	4		6	6 4	5	2
Permitted Phases		4			2	
Detector Phase	4	4	6	6 4	5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	5.0	5.0	15.0		3.0	15.0
Minimum Split (s)	11.0	11.0	21.0		9.0	21.0
Total Split (s)	40.0	40.0	69.0		11.0	80.0
Total Split (%)	33.3%	33.3%	57.5%		9.2%	66.7%
Maximum Green (s)	34.0	34.0	63.0		5.0	74.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0
Recall Mode	None	None	C-Min		None	Min
Act Effct Green (s)	34.0	34.0	65.2	106.4	74.0	74.0
Actuated g/C Ratio	0.28	0.28	0.54	0.89	0.62	0.62
v/c Ratio	1.03	0.20	0.99	0.01	0.43	0.59
Control Delay	90.7	9.4	26.6	0.4	26.0	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	90.7	9.4	26.6	0.4	26.0	9.2
LOS	F	A	C	A	C	A
Approach Delay	69.6		26.4			9.9
Approach LOS	E		C			A
Queue Length 50th (ft)	~428	12	~818	1	10	175
Queue Length 95th (ft)	#642	43	#899	m0	m36	62
Internal Link Dist (ft)	1099		913			491
Turn Bay Length (ft)		125		125	125	
Base Capacity (vph)	501	891	2762	1403	134	2182
Starvation Cap Reductn	0	0	0	0	0	149
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.20	0.99	0.01	0.43	0.63

Intersection Summary

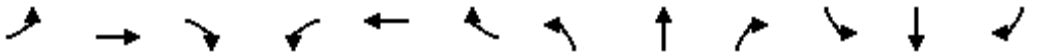
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 33 (28%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 28.1 Intersection LOS: C
Intersection Capacity Utilization 87.2% ICU Level of Service E
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

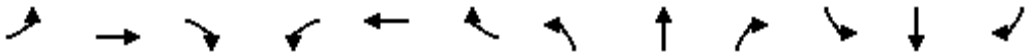
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 28: Essen & United Plaza North



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	65	0	21	115	1	402	17	2730	15	38	1140	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		100	175		0	150		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	0.95
Frt		0.850				0.850		0.999			0.995	
Flt Protected	0.950				0.953		0.950			0.950		
Satd. Flow (prot)	1770	1583	0	0	1775	1583	1770	5080	0	1770	3522	0
Flt Permitted	0.628				0.712		0.224			0.059		
Satd. Flow (perm)	1170	1583	0	0	1326	1583	417	5080	0	110	3522	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		191						1			6	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		757			843			571			472	
Travel Time (s)		17.2			19.2			8.7			7.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	68	0	22	121	1	423	18	2874	16	40	1200	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	68	22	0	0	122	423	18	2890	0	40	1245	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	3	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290		45	390	
Trailing Detector (ft)	0	0		0	0	0	0	284		0	284	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	45	45		20	45	45	45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Detector 3 Position(ft)											384	
Detector 3 Size(ft)											6	
Detector 3 Type											Cl+Ex	
Detector 3 Channel												



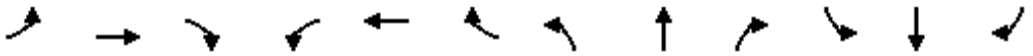
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 3 Extend (s)											0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		8		7	4	4 5	1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4	4 5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	31.0		11.0	31.0	
Total Split (s)	13.0	13.0		11.0	24.0		11.0	76.0		20.0	85.0	
Total Split (%)	10.8%	10.8%		9.2%	20.0%		9.2%	63.3%		16.7%	70.8%	
Maximum Green (s)	7.0	7.0		5.0	18.0		5.0	70.0		14.0	79.0	
Yellow Time (s)	4.5	4.5		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		2.0	2.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag		Lead			Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	3.0		0.2	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	18.5	18.5			18.5	37.2	70.8	70.8		85.4	85.4	
Actuated g/C Ratio	0.15	0.15			0.15	0.31	0.59	0.59		0.71	0.71	
v/c Ratio	0.38	0.05			0.60	0.86	0.06	0.96		0.16	0.50	
Control Delay	52.9	0.2			60.9	57.5	1.9	10.6		11.2	5.2	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	52.9	0.2			60.9	57.5	1.9	10.6		11.2	5.2	
LOS	D	A			E	E	A	B		B	A	
Approach Delay		40.0			58.2			10.5			5.4	
Approach LOS		D			E			B			A	
Queue Length 50th (ft)	48	0			90	305	1	74		3	55	
Queue Length 95th (ft)	96	0			#158	#478	m1	m89		m27	165	
Internal Link Dist (ft)		677			763			491			392	
Turn Bay Length (ft)	75					100	175			150		
Base Capacity (vph)	180	405			204	508	322	2997		272	2562	
Starvation Cap Reductn	0	0			0	0	0	0		0	135	
Spillback Cap Reductn	0	0			0	0	0	0		0	16	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.38	0.05			0.60	0.83	0.06	0.96		0.15	0.51	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 30 (25%), Referenced to phase 2:SBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	

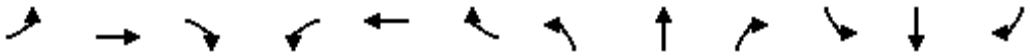
Intersection Signal Delay: 15.1	Intersection LOS: B
Intersection Capacity Utilization 97.1%	ICU Level of Service F
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 29: Essen & Sholar/Archives



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	228	0	46	0	0	0	0	1855	1343	0	1174	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.949							0.850			
Flt Protected	0.950	0.968										
Satd. Flow (prot)	1681	1626	0	0	0	0	0	3539	1583	0	3539	0
Flt Permitted	0.950	0.968										
Satd. Flow (perm)	1681	1626	0	0	0	0	0	3539	1583	0	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36							454			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		995			508			472			1384	
Travel Time (s)		22.6			11.5			7.2			21.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	240	0	48	0	0	0	0	1953	1414	0	1236	0
Shared Lane Traffic (%)	39%											
Lane Group Flow (vph)	146	142	0	0	0	0	0	1953	1414	0	1236	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1						2	1		2	
Detector Template												
Leading Detector (ft)	45	45						290	45		290	
Trailing Detector (ft)	0	0						284	-6		284	
Detector 1 Position(ft)	0	0						-6	-6		-6	
Detector 1 Size(ft)	45	45						51	51		51	
Detector 1 Type	Cl+Ex	Cl+Ex						Call	Cl+Ex		Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0		0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA						NA	Free		NA	
Protected Phases		8						6			2	
Permitted Phases	8								Free			
Detector Phase	8	8						6			2	

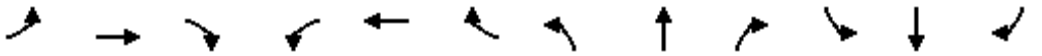


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	10.0	10.0						25.0			25.0	
Minimum Split (s)	17.0	17.0						32.0			32.0	
Total Split (s)	26.0	26.0						94.0			94.0	
Total Split (%)	21.7%	21.7%						78.3%			78.3%	
Maximum Green (s)	19.0	19.0						87.0			87.0	
Yellow Time (s)	5.0	5.0						5.0			5.0	
All-Red Time (s)	2.0	2.0						2.0			2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	7.0	7.0						7.0			7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5						5.0			5.0	
Minimum Gap (s)	0.2	0.2						3.0			3.0	
Time Before Reduce (s)	0.0	0.0						15.0			15.0	
Time To Reduce (s)	0.0	0.0						15.0			15.0	
Recall Mode	None	None						C-Max			Max	
Act Effct Green (s)	14.9	14.9						91.1	120.0		91.1	
Actuated g/C Ratio	0.12	0.12						0.76	1.00		0.76	
v/c Ratio	0.70	0.61						0.73	0.89		0.46	
Control Delay	67.8	47.7						4.2	15.2		6.3	
Queue Delay	0.0	0.0						0.4	0.0		0.0	
Total Delay	67.8	47.7						4.7	15.2		6.3	
LOS	E	D						A	B		A	
Approach Delay		57.9						9.1			6.3	
Approach LOS		E						A			A	
Queue Length 50th (ft)	115	82						153	1059		161	
Queue Length 95th (ft)	185	149						m158	m975		227	
Internal Link Dist (ft)		915			428			392			1304	
Turn Bay Length (ft)	400											
Base Capacity (vph)	266	287						2686	1583		2686	
Starvation Cap Reductn	0	0						288	0		0	
Spillback Cap Reductn	0	0						0	0		10	
Storage Cap Reductn	0	0						0	0		0	
Reduced v/c Ratio	0.55	0.49						0.81	0.89		0.46	

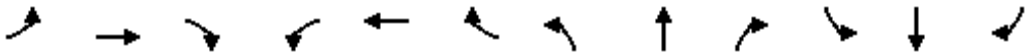
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 43 (36%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 11.3		Intersection LOS: B	
Intersection Capacity Utilization 71.3%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 32: Essen & I-12 EB

M.30 2037 NO BUILD PM – BLUEBONNET BOULEVARD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	165	1089	107	464	732	134	184	1076	182	342	968	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		250	325		375	350		0	250		150
Storage Lanes	2		1	2		1	2		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Frt			0.850			0.850		0.978				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3461	0	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3461	0	3433	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								13				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		2445			3864			2201			709	
Travel Time (s)		37.0			58.5			33.3			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	174	1146	113	488	771	141	194	1133	192	360	1019	201
Shared Lane Traffic (%)												
Lane Group Flow (vph)	174	1146	113	488	771	141	194	1325	0	360	1019	201
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45	45	290		45	290	45
Trailing Detector (ft)	-6	284	-6	-6	284	-6	-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6	-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51	51	51		51	51	51
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		284			284			284			284	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Extend			Extend			Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8		7	4	4 5
Permitted Phases												
Detector Phase	5	2	2 3	1	6	6 7	3	8		7	4	4 5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	10.0		4.0	10.0	
Minimum Split (s)	11.0	34.5		11.0	37.5		11.0	41.0		11.0	41.0	
Total Split (s)	20.0	52.0		26.0	58.0		18.0	61.0		21.0	64.0	
Total Split (%)	12.5%	32.5%		16.3%	36.3%		11.3%	38.1%		13.1%	40.0%	
Maximum Green (s)	13.0	45.5		19.0	51.5		11.0	54.0		14.0	57.0	
Yellow Time (s)	5.0	4.5		5.0	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	6.5		7.0	6.5		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.3		3.0	4.3		3.0	3.9		3.0	3.9	
Minimum Gap (s)	0.2	2.2		0.2	2.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	15.0		0.0	15.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0		0.0	10.0		0.0	10.0	
Recall Mode	None	Min		None	Min		None	Min		None	C-Min	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		23.0			26.0			29.0			29.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	12.2	45.5	63.5	19.0	52.3	73.3	17.5	54.0		14.0	50.5	62.6
Actuated g/C Ratio	0.08	0.28	0.40	0.12	0.33	0.46	0.11	0.34		0.09	0.32	0.39
v/c Ratio	0.67	1.14	0.18	1.20	0.67	0.19	0.52	1.13		1.20	0.91	0.32
Control Delay	84.8	125.2	19.2	168.0	49.9	26.9	73.3	115.4		174.8	58.5	15.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.2	0.0
Total Delay	84.8	125.2	19.2	168.0	49.9	26.9	73.3	115.4		174.8	58.7	15.8
LOS	F	F	B	F	D	C	E	F		F	E	B
Approach Delay		112.0			88.8			110.1			79.7	
Approach LOS		F			F			F			E	
Queue Length 50th (ft)	92	~733	50	~317	369	88	101	~837		~229	484	37
Queue Length 95th (ft)	135	#873	89	#436	444	138	#173	#979		#350	534	112
Internal Link Dist (ft)		2365			3784			2121			629	
Turn Bay Length (ft)	440		250	325		375	350			250		150
Base Capacity (vph)	278	1006	628	407	1157	725	375	1176		300	1260	692
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	18	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.63	1.14	0.18	1.20	0.67	0.19	0.52	1.13		1.20	0.82	0.29

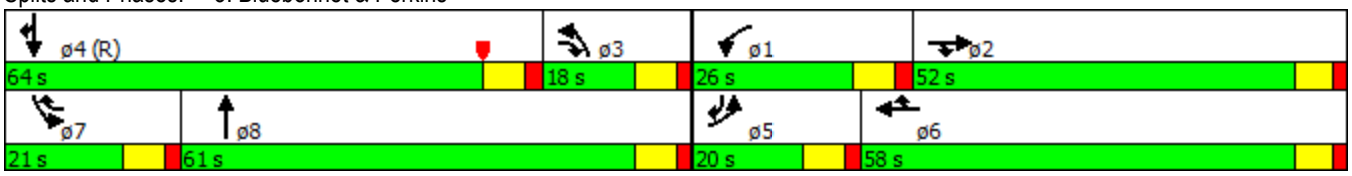
Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 160			
Offset: 145 (91%), Referenced to phase 4:SBT, Start of Yellow			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.20			
Intersection Signal Delay: 97.4		Intersection LOS: F	
Intersection Capacity Utilization 111.6%		ICU Level of Service H	

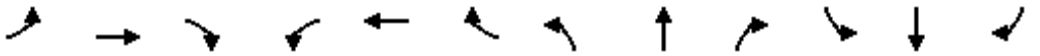
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

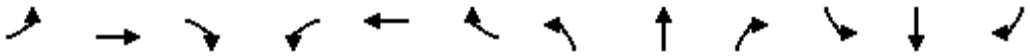
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Bluebonnet & Perkins





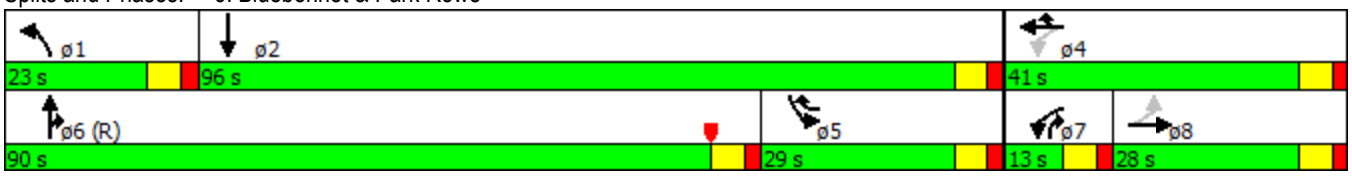
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	100	14	57	78	15	194	99	1110	166	325	1365	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		125	160		160	175		0
Storage Lanes	1		0	0		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.880				0.850			0.850		0.992	
Flt Protected	0.950				0.960		0.950			0.950		
Satd. Flow (prot)	1770	1639	0	0	1788	1583	1770	3539	1583	3433	3511	0
Flt Permitted	0.694				0.518		0.950			0.950		
Satd. Flow (perm)	1293	1639	0	0	965	1583	1770	3539	1583	3433	3511	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		60									6	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		511			1048			709			2556	
Travel Time (s)		11.6			23.8			10.7			38.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	105	15	60	82	16	204	104	1168	175	342	1437	83
Shared Lane Traffic (%)												
Lane Group Flow (vph)	105	75	0	0	98	204	104	1168	175	342	1520	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290	45	45	290	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284	-6	-6	284	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6	-6	-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	
Protected Phases		8		7	4	4 5	1	6	6 7	5	2	
Permitted Phases	8			4								
Detector Phase	8	8		7	4	4 5	1	6	6 7	5	2	

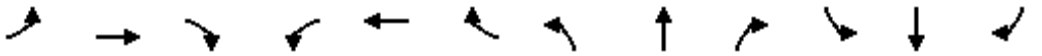


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		3.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	11.0	11.0		9.0	11.0		9.0	21.0		9.0	21.0	
Total Split (s)	28.0	28.0		13.0	41.0		23.0	90.0		29.0	96.0	
Total Split (%)	17.5%	17.5%		8.1%	25.6%		14.4%	56.3%		18.1%	60.0%	
Maximum Green (s)	22.0	22.0		7.0	35.0		17.0	84.0		23.0	90.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		1.5	2.0		1.5	4.0		1.5	4.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	17.1	17.1			31.9	61.7	13.0	86.3	95.1	23.8	97.2	
Actuated g/C Ratio	0.11	0.11			0.20	0.39	0.08	0.54	0.59	0.15	0.61	
v/c Ratio	0.76	0.33			0.41	0.33	0.73	0.61	0.19	0.67	0.71	
Control Delay	101.0	23.6			57.7	34.4	84.3	40.2	13.4	70.5	25.9	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.5	0.0	0.0	0.0	
Total Delay	101.0	23.6			57.7	34.4	84.3	40.7	13.4	70.5	25.9	
LOS	F	C			E	C	F	D	B	E	C	
Approach Delay		68.7			42.0			40.5			34.1	
Approach LOS		E			D			D			C	
Queue Length 50th (ft)	108	14			88	152	115	486	99	178	558	
Queue Length 95th (ft)	175	66			135	179	m119	m244	m61	218	792	
Internal Link Dist (ft)		431			968			629			2476	
Turn Bay Length (ft)	100					125	160		160	175		
Base Capacity (vph)	179	279			265	637	188	1998	982	545	2163	
Starvation Cap Reductn	0	0			0	0	0	370	0	0	0	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	1	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.59	0.27			0.37	0.32	0.55	0.72	0.18	0.63	0.70	

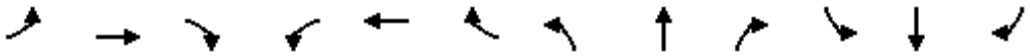
Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 160			
Offset: 18 (11%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 38.8		Intersection LOS: D	
Intersection Capacity Utilization 72.9%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Bluebonnet & Park Rowe





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	595	6	99	29	2	55	19	1373	12	20	1641	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	475		475	50		0	425		0	130		130
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.855			0.999				0.850
Flt Protected	0.950	0.953		0.950			0.950			0.950		
Satd. Flow (prot)	1681	1686	1583	1770	1593	0	1770	3536	0	1770	3539	1583
Flt Permitted	0.950	0.953		0.950			0.950			0.950		
Satd. Flow (perm)	1681	1686	1583	1770	1593	0	1770	3536	0	1770	3539	1583
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)					58			1				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1004			740			2556			469	
Travel Time (s)		22.8			16.8			38.7			7.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	626	6	104	31	2	58	20	1445	13	21	1727	143
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	313	319	104	31	60	0	20	1458	0	21	1727	143
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	45	45	45		45	290		45	290	45
Trailing Detector (ft)	-6	-6	-6	-6	-6		-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6		-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51		51	51		51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA		Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4		1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4		1	6		5	2	2 8



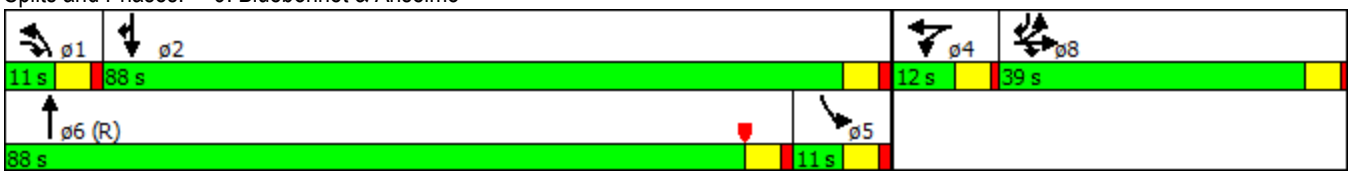
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.5	25.5		8.5	25.5	
Total Split (s)	39.0	39.0		12.0	12.0		11.0	88.0		11.0	88.0	
Total Split (%)	26.0%	26.0%		8.0%	8.0%		7.3%	58.7%		7.3%	58.7%	
Maximum Green (s)	34.0	34.0		7.0	7.0		5.5	82.5		5.5	82.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	6.0		3.0	6.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	32.7	32.7	43.8	7.1	7.1		5.6	89.7		6.5	86.1	119.4
Actuated g/C Ratio	0.22	0.22	0.29	0.05	0.05		0.04	0.60		0.04	0.57	0.80
v/c Ratio	0.86	0.87	0.23	0.37	0.46		0.31	0.69		0.27	0.85	0.11
Control Delay	77.9	79.6	41.3	82.2	28.8		82.9	24.7		65.4	23.1	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.2		0.0	0.2		0.0	0.0	0.0
Total Delay	77.9	79.6	41.3	82.2	28.9		82.9	25.0		65.4	23.1	1.8
LOS	E	E	D	F	C		F	C		E	C	A
Approach Delay		73.5			47.1			25.7			22.0	
Approach LOS		E			D			C			C	
Queue Length 50th (ft)	309	316	77	30	2		19	590		0	936	11
Queue Length 95th (ft)	#468	#482	128	67	51		50	648		m50	347	29
Internal Link Dist (ft)		924			660			2476			389	
Turn Bay Length (ft)	475		475	50			425			130		130
Base Capacity (vph)	381	382	461	84	130		65	2136		77	2032	1274
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	2		0	160		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.82	0.84	0.23	0.37	0.47		0.31	0.74		0.27	0.85	0.11

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 94 (63%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 32.9		Intersection LOS: C	
Intersection Capacity Utilization 77.4%		ICU Level of Service D	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Bluebonnet & Anselmo



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Lane Configurations									
Volume (vph)	323	99	1632	391	125	1474			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	0	100		150	350				
Storage Lanes	2	1		1	1				
Taper Length (ft)	25				25				
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.91			
Frt		0.850		0.850					
Flt Protected	0.950				0.950				
Satd. Flow (prot)	3433	1583	3539	1583	1770	5085			
Flt Permitted	0.950				0.950				
Satd. Flow (perm)	3433	1583	3539	1583	1770	5085			
Right Turn on Red		No		No					
Satd. Flow (RTOR)									
Link Speed (mph)	30		45			45			
Link Distance (ft)	352		390			974			
Travel Time (s)	8.0		5.9			14.8			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95			
Adj. Flow (vph)	340	104	1718	412	132	1552			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	340	104	1718	412	132	1552			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Right	Left	Left			
Median Width(ft)	35		20			20			
Link Offset(ft)	0		0			0			
Crosswalk Width(ft)	16		16			16			
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Turning Speed (mph)	15	9		9	15				
Number of Detectors	1	1	2	1	1	2			
Detector Template									
Leading Detector (ft)	45	45	290	45	45	290			
Trailing Detector (ft)	-6	-6	284	-6	-6	284			
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			
Detector 1 Size(ft)	51	51	51	51	51	51			
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call			
Detector 1 Channel									
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)			284			284			
Detector 2 Size(ft)			6			6			
Detector 2 Type			Extend			Extend			
Detector 2 Channel									
Detector 2 Extend (s)			0.0			0.0			
Turn Type	Prot	pt+ov	NA	pt+ov	Prot	NA			
Protected Phases	4	4 3	1	1 4	3	2	5	7	8
Permitted Phases									
Detector Phase	4	4 3	1	1 4	3	2			

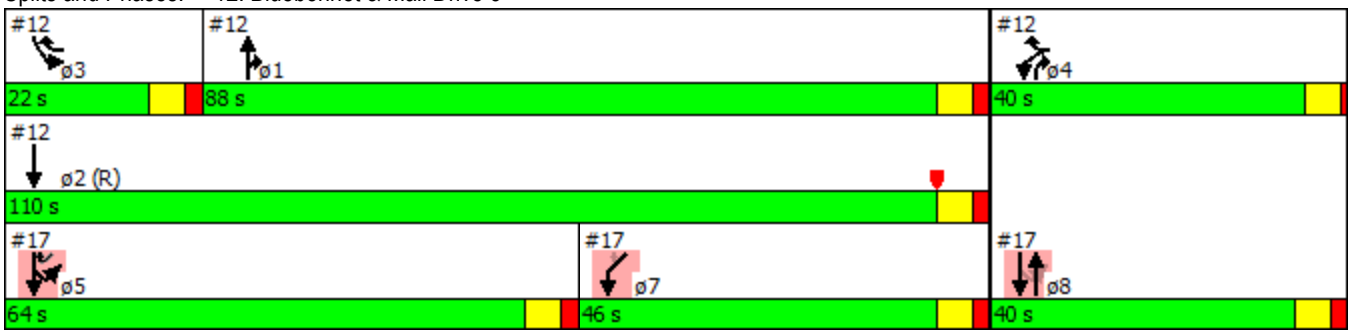
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Switch Phase									
Minimum Initial (s)	4.0		24.0		4.0	34.0	4.0	4.0	34.0
Minimum Split (s)	10.0		30.0		10.0	40.0	10.0	22.0	40.0
Total Split (s)	40.0		88.0		22.0	110.0	64.0	46.0	40.0
Total Split (%)	26.7%		58.7%		14.7%	73.3%	43%	31%	27%
Maximum Green (s)	35.0		82.0		16.0	104.0	58.0	40.0	34.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0			
Total Lost Time (s)	5.0		6.0		6.0	6.0			
Lead/Lag			Lag		Lead		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	
Vehicle Extension (s)	2.5		4.3		2.0	4.3	2.5	3.0	4.3
Minimum Gap (s)	0.2		2.2		0.2	2.2	0.2	3.0	2.2
Time Before Reduce (s)	0.0		20.0		0.0	30.0	0.0	0.0	30.0
Time To Reduce (s)	0.0		15.0		0.0	15.0	0.0	0.0	15.0
Recall Mode	None		Min		None	C-Min	Max	None	Min
Walk Time (s)								5.0	
Flash Dont Walk (s)								11.0	
Pedestrian Calls (#/hr)								0	
Act Effct Green (s)	35.0	55.3	83.7	123.7	14.3	104.0			
Actuated g/C Ratio	0.23	0.37	0.56	0.82	0.10	0.69			
v/c Ratio	0.42	0.18	0.87	0.32	0.79	0.44			
Control Delay	30.5	22.9	23.4	5.0	103.2	1.8			
Queue Delay	0.6	0.0	0.9	0.0	0.0	0.0			
Total Delay	31.1	22.9	24.3	5.0	103.2	1.8			
LOS	C	C	C	A	F	A			
Approach Delay	29.2		20.6			9.8			
Approach LOS	C		C			A			
Queue Length 50th (ft)	102	54	692	126	130	45			
Queue Length 95th (ft)	126	84	870	m147	m182	59			
Internal Link Dist (ft)	272		310			894			
Turn Bay Length (ft)		100		150	350				
Base Capacity (vph)	801	601	1974	1305	188	3525			
Starvation Cap Reductn	193	0	86	0	0	0			
Spillback Cap Reductn	0	0	0	0	0	373			
Storage Cap Reductn	0	0	0	0	0	0			
Reduced v/c Ratio	0.56	0.17	0.91	0.32	0.70	0.49			

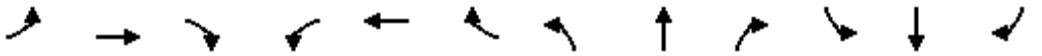
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 98 (65%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 17.2		Intersection LOS: B	
Intersection Capacity Utilization 75.4%		ICU Level of Service D	

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

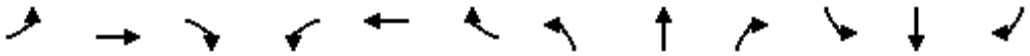
Splits and Phases: 12: Bluebonnet & Mall Drive 3





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	764	319	259	74	74	61	101	1593	37	176	1266	212
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	140		140	200		200	200		160
Storage Lanes	2		0	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		0.933				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3302	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3302	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		138										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1050			403			974			1065	
Travel Time (s)		23.9			9.2			14.8			16.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	804	336	273	78	78	64	106	1677	39	185	1333	223
Shared Lane Traffic (%)												
Lane Group Flow (vph)	804	609	0	78	78	64	106	1677	39	185	1333	223
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			36			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pt+ov
Protected Phases	3	2		9	8	8 6	1	10	10 9	6	5	5 3
Permitted Phases												
Detector Phase	3	2		9	8	8 6	1	10	10 9	6	5	5 3

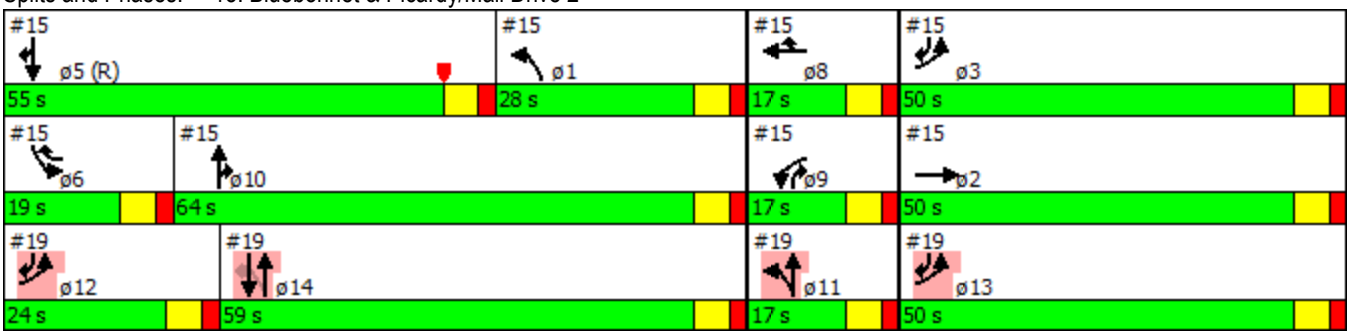
Lane Group	ø11	ø12	ø13	ø14
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	11	12	13	14
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	21.0		3.0	21.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		11.0	27.0		11.0	27.0	
Total Split (s)	50.0	50.0		17.0	17.0		28.0	64.0		19.0	55.0	
Total Split (%)	33.3%	33.3%		11.3%	11.3%		18.7%	42.7%		12.7%	36.7%	
Maximum Green (s)	44.0	44.0		11.0	11.0		22.0	58.0		13.0	49.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.0		1.0	1.0		3.0	4.3		1.0	4.3	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	28.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	15.0	
Recall Mode	None	None		None	None		None	None		None	C-Min	
Act Effct Green (s)	39.3	39.3		7.7	7.7	29.4	26.6	57.3	71.0	21.7	52.4	97.7
Actuated g/C Ratio	0.26	0.26		0.05	0.05	0.20	0.18	0.38	0.47	0.14	0.35	0.65
v/c Ratio	0.89	0.63		0.45	0.43	0.21	0.34	0.86	0.05	0.37	0.75	0.22
Control Delay	66.2	39.8		62.8	62.1	46.3	35.7	24.5	4.5	70.4	20.8	6.0
Queue Delay	0.0	0.1		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.2	39.9		62.8	62.1	46.3	35.7	24.5	4.5	70.4	20.8	6.0
LOS	E	D		E	E	D	D	C	A	E	C	A
Approach Delay		54.9			57.8			24.8			24.2	
Approach LOS		D			E			C			C	
Queue Length 50th (ft)	390	215		41	42	59	73	334	6	66	297	38
Queue Length 95th (ft)	450	267		72	73	106	m101	471	m5	120	143	39
Internal Link Dist (ft)		970			323			894			985	
Turn Bay Length (ft)	150			140		140	200		200	200		160
Base Capacity (vph)	1014	1072		251	259	345	314	1981	783	496	1775	1016
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	26		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.58		0.31	0.30	0.19	0.34	0.85	0.05	0.37	0.75	0.22

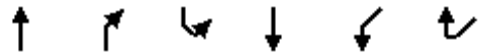
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 70 (47%), Referenced to phase 5:SBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 34.1		Intersection LOS: C	
Intersection Capacity Utilization 80.9%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 15: Bluebonnet & Picardy/Mall Drive 2

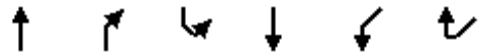


Lane Group	ø11	ø12	ø13	ø14
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	3.0
Minimum Split (s)	10.0	22.0	10.0	9.0
Total Split (s)	17.0	24.0	50.0	59.0
Total Split (%)	11%	16%	33%	39%
Maximum Green (s)	11.0	18.0	44.0	53.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	1.0
Minimum Gap (s)	3.0	3.0	3.0	0.2
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



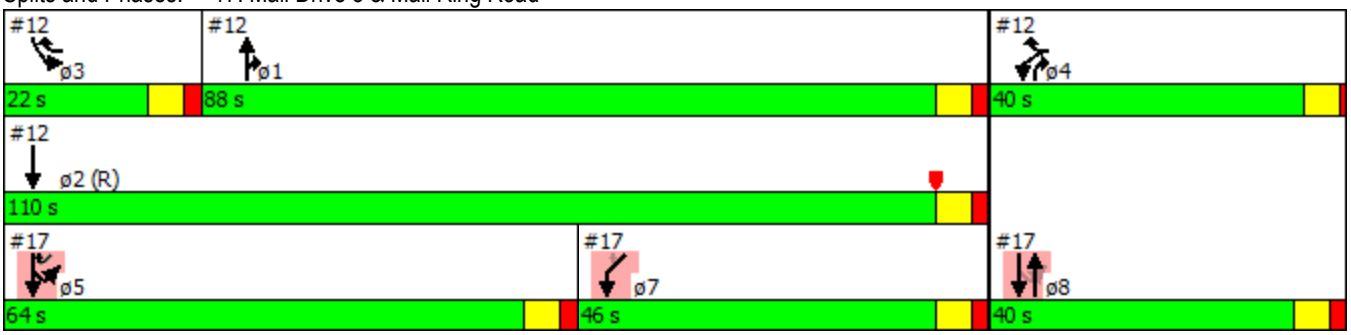
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Lane Configurations										
Volume (vph)	240	211	263	253	203	182				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00				
Frt	0.930					0.850				
Flt Protected			0.950		0.950					
Satd. Flow (prot)	3291	0	1770	1863	1770	1583				
Flt Permitted			0.287		0.950					
Satd. Flow (perm)	3291	0	535	1863	1770	1583				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)	137					198				
Link Speed (mph)	30			30	30					
Link Distance (ft)	797			352	1050					
Travel Time (s)	18.1			8.0	23.9					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Adj. Flow (vph)	261	229	286	275	221	198				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	490	0	286	275	221	198				
Enter Blocked Intersection	No	No	No	No	No	No				
Lane Alignment	Left	Right	Left	Left	Left	Right				
Median Width(ft)	0			12	12					
Link Offset(ft)	0			0	0					
Crosswalk Width(ft)	16			16	16					
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)		9	15		15	9				
Number of Detectors	2		1	2	1	1				
Detector Template	Thru		Left	Thru	Left	Right				
Leading Detector (ft)	100		20	100	20	20				
Trailing Detector (ft)	0		0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0				
Detector 1 Size(ft)	6		20	6	20	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel										
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0				
Detector 2 Position(ft)	94			94						
Detector 2 Size(ft)	6			6						
Detector 2 Type	Cl+Ex			Cl+Ex						
Detector 2 Channel										
Detector 2 Extend (s)	0.0			0.0						
Turn Type	NA		D.P+P	NA	Prot	pm+ov				
Protected Phases	8		5	5 8	7	5	1	2	3	4
Permitted Phases			8			7				
Detector Phase	8		5	5 8	7	5				
Switch Phase										
Minimum Initial (s)	34.0		4.0		4.0	4.0	24.0	34.0	4.0	4.0
Minimum Split (s)	40.0		10.0		22.0	10.0	30.0	40.0	10.0	10.0

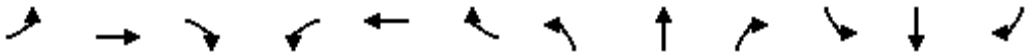


Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Total Split (s)	40.0		64.0		46.0	64.0	88.0	110.0	22.0	40.0
Total Split (%)	26.7%		42.7%		30.7%	42.7%	59%	73%	15%	27%
Maximum Green (s)	34.0		58.0		40.0	58.0	82.0	104.0	16.0	35.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0		2.0	2.0	2.0	2.0	2.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0				
Total Lost Time (s)	6.0		6.0		6.0	6.0				
Lead/Lag			Lead		Lag	Lead	Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	Yes				
Vehicle Extension (s)	4.3		2.5		3.0	2.5	4.3	4.3	2.0	2.5
Minimum Gap (s)	2.2		0.2		3.0	0.2	2.2	2.2	0.2	0.2
Time Before Reduce (s)	30.0		0.0		0.0	0.0	20.0	30.0	0.0	0.0
Time To Reduce (s)	15.0		0.0		0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	Min		Max		None	Max	Min	C-Min	None	None
Walk Time (s)					5.0					
Flash Dont Walk (s)					11.0					
Pedestrian Calls (#/hr)					0					
Act Effct Green (s)	34.0		101.1	107.1	30.9	104.0				
Actuated g/C Ratio	0.23		0.67	0.71	0.21	0.69				
v/c Ratio	0.58		0.31	0.21	0.61	0.17				
Control Delay	39.6		13.6	9.2	32.2	0.3				
Queue Delay	0.0		0.5	0.7	0.0	0.0				
Total Delay	39.6		14.0	9.9	32.2	0.3				
LOS	D		B	A	C	A				
Approach Delay	39.6			12.0	17.1					
Approach LOS	D			B	B					
Queue Length 50th (ft)	163		96	91	148	0				
Queue Length 95th (ft)	224		144	137	271	0				
Internal Link Dist (ft)	717			272	970					
Turn Bay Length (ft)										
Base Capacity (vph)	851		913	1330	472	1158				
Starvation Cap Reductn	0		291	745	0	0				
Spillback Cap Reductn	0		0	0	0	0				
Storage Cap Reductn	0		0	0	0	0				
Reduced v/c Ratio	0.58		0.46	0.47	0.47	0.17				

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 98 (65%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 22.7		Intersection LOS: C	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			

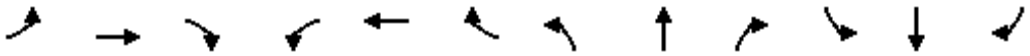
Splits and Phases: 17: Mall Drive 3 & Mall Ring Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	2364	38	222	1650	38	0	0	442	25	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		200	300		100	0		0	65		0
Storage Lanes	1		1	2		1	0		2	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.925	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1723	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1723	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109			40			240		4	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1065			834			318			371	
Travel Time (s)		16.1			12.6			7.2			8.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	17	2488	40	234	1737	40	0	0	465	26	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	17	2488	40	234	1737	40	0	0	465	26	8	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1			1	1	1	
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45			45	45	45	
Trailing Detector (ft)	-6	284	-6	-6	284	-6			-6	-6	-6	
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			-6	-6	-6	
Detector 1 Size(ft)	51	51	51	51	51	51			51	51	51	
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA	Perm	Prot	NA	custom			Over	Perm	NA	
Protected Phases	1	7		5	4	2			5		2	
Permitted Phases			7			4				2		
Detector Phase	1	7	7	5	4	2			5	2	2	

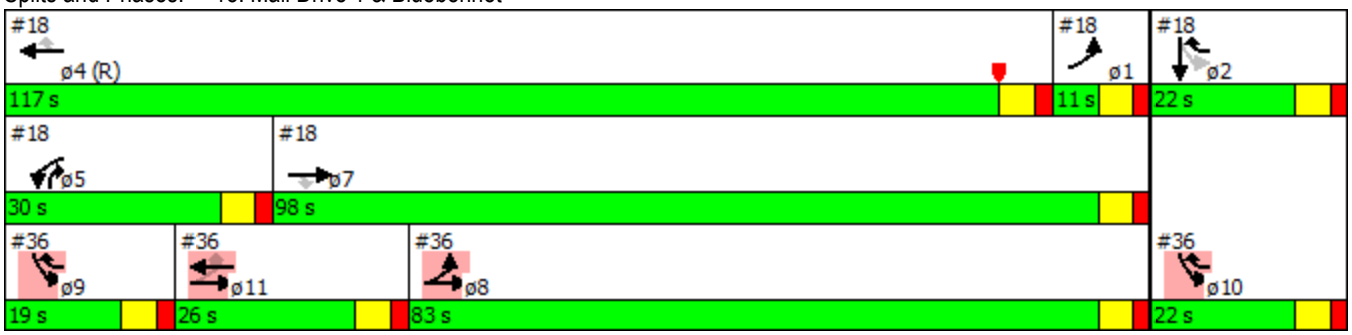
Lane Group	ø8	ø9	ø10	ø11
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	8	9	10	11
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	14.0	4.0	14.0	4.0			4.0	4.0	4.0	
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	10.0			10.0	10.0	10.0	
Total Split (s)	11.0	98.0	98.0	30.0	117.0	22.0			30.0	22.0	22.0	
Total Split (%)	7.3%	65.3%	65.3%	20.0%	78.0%	14.7%			20.0%	14.7%	14.7%	
Maximum Green (s)	5.0	92.0	92.0	24.0	111.0	16.0			24.0	16.0	16.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0			6.0	6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	4.3	4.3	2.5	4.3	2.0			2.5	2.0	2.0	
Minimum Gap (s)	0.2	2.2	2.2	0.2	2.2	0.2			0.2	0.2	0.2	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	34.0	0.0			0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	15.0	0.0			0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Min	None			None	None	None	
Act Effct Green (s)	12.8	101.1	101.1	18.3	116.1	139.5			18.3	12.6	12.6	
Actuated g/C Ratio	0.09	0.67	0.67	0.12	0.77	0.93			0.12	0.08	0.08	
v/c Ratio	0.11	0.73	0.04	0.56	0.44	0.03			0.85	0.18	0.05	
Control Delay	57.1	11.7	0.0	63.9	10.1	0.2			53.4	65.1	45.9	
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Delay	57.1	12.0	0.0	63.9	10.1	0.2			53.4	65.1	45.9	
LOS	E	B	A	E	B	A			D	E	D	
Approach Delay		12.1			16.2						60.6	
Approach LOS		B			B						E	
Queue Length 50th (ft)	18	308	0	104	257	0			136	24	4	
Queue Length 95th (ft)	m13	329	m0	142	584	m3			192	55	22	
Internal Link Dist (ft)		985			754			238			291	
Turn Bay Length (ft)	140		200	300		100				65		
Base Capacity (vph)	150	3426	1102	549	4175	1456			647	188	187	
Starvation Cap Reductn	0	314	0	0	0	0			3	0	0	
Spillback Cap Reductn	0	0	0	0	0	0			0	0	0	
Storage Cap Reductn	0	0	0	0	0	0			0	0	0	
Reduced v/c Ratio	0.11	0.80	0.04	0.43	0.42	0.03			0.72	0.14	0.04	

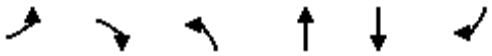
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 113 (75%), Referenced to phase 4:WBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 17.8		Intersection LOS: B	
Intersection Capacity Utilization 79.5%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 18: Mall Drive 1 & Bluebonnet



Lane Group	ø8	ø9	ø10	ø11
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	14.0
Minimum Split (s)	22.0	10.0	22.0	20.0
Total Split (s)	83.0	19.0	22.0	26.0
Total Split (%)	55%	13%	15%	17%
Maximum Green (s)	77.0	13.0	16.0	20.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	4.3
Minimum Gap (s)	3.0	3.0	3.0	2.2
Time Before Reduce (s)	0.0	0.0	0.0	34.0
Time To Reduce (s)	0.0	0.0	0.0	15.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Lane Configurations												
Volume (vph)	323	209	145	329	176	64						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Frt		0.850				0.850						
Flt Protected	0.950		0.950									
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583						
Flt Permitted	0.950		0.584									
Satd. Flow (perm)	1770	1583	1088	1863	1863	1583						
Right Turn on Red		Yes				Yes						
Satd. Flow (RTOR)		171				70						
Link Speed (mph)	30			30	30							
Link Distance (ft)	403			1050	819							
Travel Time (s)	9.2			23.9	18.6							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	351	227	158	358	191	70						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	351	227	158	358	191	70						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Right	Left	Left	Left	Right						
Median Width(ft)	36			12	0							
Link Offset(ft)	0			0	0							
Crosswalk Width(ft)	16			16	16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15	9	15			9						
Number of Detectors	1	1	1	2	2	1						
Detector Template	Left	Right	Left	Thru	Thru	Right						
Leading Detector (ft)	20	20	20	100	100	20						
Trailing Detector (ft)	0	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0	0						
Detector 1 Size(ft)	20	20	20	6	6	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)				94	94							
Detector 2 Size(ft)				6	6							
Detector 2 Type				Cl+Ex	Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)				0.0	0.0							
Turn Type	Prot	Free	D.P+P	NA	NA	pm+ov						
Protected Phases	12 13		11	11 14	14	12 13	1	2	3	5	6	8
Permitted Phases		Free	14			14						
Detector Phase	12 13		11	11 14	14	12 13						
Switch Phase												
Minimum Initial (s)			4.0		3.0		3.0	3.0	3.0	21.0	3.0	3.0
Minimum Split (s)			10.0		9.0		11.0	9.0	9.0	27.0	11.0	9.0

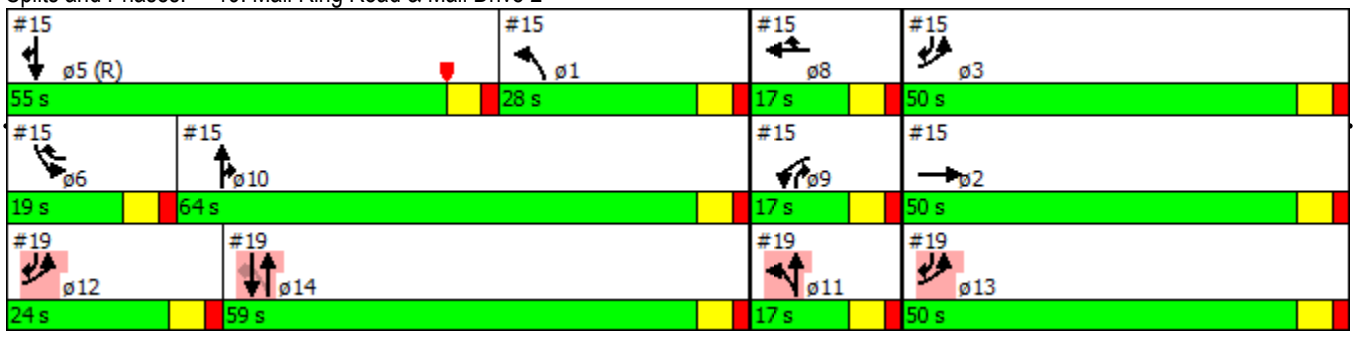
Lane Group	ø9	ø10	ø12	ø13
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	9	10	12	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	21.0	4.0	4.0
Minimum Split (s)	9.0	27.0	22.0	10.0

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Total Split (s)			17.0		59.0		28.0	50.0	50.0	55.0	19.0	17.0
Total Split (%)			11.3%		39.3%		19%	33%	33%	37%	13%	11%
Maximum Green (s)			11.0		53.0		22.0	44.0	44.0	49.0	13.0	11.0
Yellow Time (s)			4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)			2.0		2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0		0.0							
Total Lost Time (s)			6.0		6.0							
Lead/Lag					Lag		Lag			Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0		1.0		3.0	1.0	1.5	4.3	1.0	1.0
Minimum Gap (s)			3.0		0.2		0.2	0.2	0.2	2.2	0.2	0.2
Time Before Reduce (s)			0.0		0.0		0.0	0.0	0.0	28.0	0.0	0.0
Time To Reduce (s)			0.0		0.0		0.0	0.0	0.0	15.0	0.0	0.0
Recall Mode			None		None		None	None	None	C-Min	None	None
Act Effct Green (s)	65.8	150.0	66.2	72.2	58.5	130.3						
Actuated g/C Ratio	0.44	1.00	0.44	0.48	0.39	0.87						
v/c Ratio	0.45	0.14	0.31	0.40	0.26	0.05						
Control Delay	25.3	0.2	39.8	42.8	24.4	0.1						
Queue Delay	0.6	0.0	0.0	0.0	0.0	0.0						
Total Delay	25.9	0.2	39.8	42.8	24.4	0.1						
LOS	C	A	D	D	C	A						
Approach Delay	15.8			41.9	17.9							
Approach LOS	B			D	B							
Queue Length 50th (ft)	95	0	119	322	181	0						
Queue Length 95th (ft)	301	0	184	422	218	0						
Internal Link Dist (ft)	323			970	739							
Turn Bay Length (ft)												
Base Capacity (vph)	802	1583	553	936	740	1361						
Starvation Cap Reductn	173	0	0	0	0	0						
Spillback Cap Reductn	0	0	0	0	0	0						
Storage Cap Reductn	0	0	0	0	0	0						
Reduced v/c Ratio	0.56	0.14	0.29	0.38	0.26	0.05						

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 70 (47%), Referenced to phase 5:SBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 26.1 Intersection LOS: C
Intersection Capacity Utilization 50.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 19: Mall Ring Road & Mall Drive 2

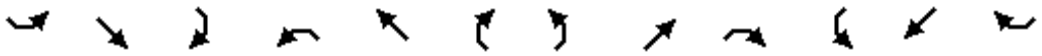


Lane Group	ø9	ø10	ø12	ø13
Total Split (s)	17.0	64.0	24.0	50.0
Total Split (%)	11%	43%	16%	33%
Maximum Green (s)	11.0	58.0	18.0	44.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?			Yes	
Vehicle Extension (s)	1.0	4.3	3.0	3.0
Minimum Gap (s)	0.2	0.2	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	224	1	670	0	0	0	0	2287	544	666	1239	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		0	0		0	400		0	300		0
Storage Lanes	1		1	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950	0.953								0.950		
Satd. Flow (prot)	1681	1686	1583	0	0	0	0	6408	1583	1770	3539	0
Flt Permitted	0.950	0.953								0.950		
Satd. Flow (perm)	1681	1686	1583	0	0	0	0	6408	1583	1770	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			450						274			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1072			1024			834			410	
Travel Time (s)		24.4			23.3			12.6			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	236	1	705	0	0	0	0	2407	573	701	1304	0
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	118	119	705	0	0	0	0	2407	573	701	1304	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			25	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					2	1	1	2	
Detector Template												
Leading Detector (ft)	45	45	45					290	45	45	290	
Trailing Detector (ft)	-6	-6	-6					284	-6	-6	284	
Detector 1 Position(ft)	-6	-6	-6					-6	-6	-6	-6	
Detector 1 Size(ft)	51	51	51					51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA	Free					NA	Perm	Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2			
Detector Phase	4	4						2	2	1	6	

Lane Group	ø5	ø8
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	5	8
Permitted Phases		
Detector Phase		



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)	3.0	3.0						10.0	10.0	3.0	10.0	
Minimum Split (s)	18.0	18.0						20.0	20.0	8.0	20.0	
Total Split (s)	18.0	18.0						78.0	78.0	54.0	90.0	
Total Split (%)	12.0%	12.0%						52.0%	52.0%	36.0%	60.0%	
Maximum Green (s)	13.0	13.0						73.0	73.0	49.0	85.0	
Yellow Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0	2.0	2.0	6.0	
Recall Mode	None	None						C-Max	C-Max	None	Max	
Act Effct Green (s)	12.5	12.5	150.0					73.5	73.5	49.0	85.0	
Actuated g/C Ratio	0.08	0.08	1.00					0.49	0.49	0.33	0.57	
v/c Ratio	0.85	0.85	0.45					0.77	0.63	1.21	0.65	
Control Delay	111.3	111.5	0.9					23.2	9.9	130.5	7.2	
Queue Delay	0.0	0.0	0.0					0.3	0.4	1.1	1.5	
Total Delay	111.3	111.5	0.9					23.5	10.3	131.6	8.7	
LOS	F	F	A					C	B	F	A	
Approach Delay		28.7						20.9			51.6	
Approach LOS		C						C			D	
Queue Length 50th (ft)	122	123	0					617	133	~845	71	
Queue Length 95th (ft)	#240	#241	0					555	293	m#967	m116	
Internal Link Dist (ft)		992			944			754			330	
Turn Bay Length (ft)	375									300		
Base Capacity (vph)	145	146	1583					3141	916	578	2005	
Starvation Cap Reductn	0	0	0					0	71	75	476	
Spillback Cap Reductn	0	0	0					196	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.81	0.82	0.45					0.82	0.68	1.39	0.85	

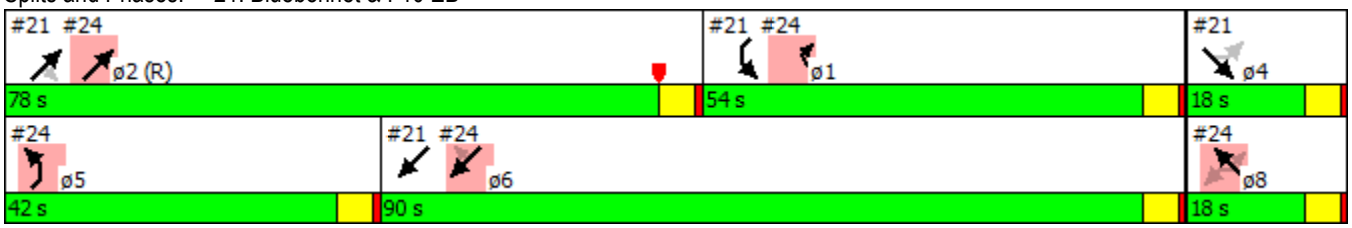
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 138 (92%), Referenced to phase 2:NET, Start of Yellow			
Natural Cycle: 140			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.21			
Intersection Signal Delay: 32.6		Intersection LOS: C	
Intersection Capacity Utilization 89.3%		ICU Level of Service E	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

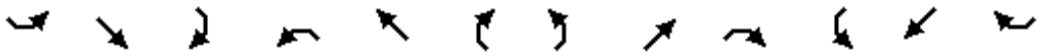
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: Bluebonnet & I-10 EB



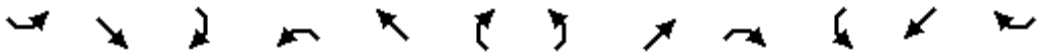
Lane Group	ø5	ø8
Switch Phase		
Minimum Initial (s)	3.0	3.0
Minimum Split (s)	8.0	18.0
Total Split (s)	42.0	18.0
Total Split (%)	28%	12%
Maximum Green (s)	37.0	13.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?		
Vehicle Extension (s)	3.5	2.0
Recall Mode	Max	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	0	0	158	4	420	785	1726	0	0	1747	328
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		525	300		0	0		575
Storage Lanes	0		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt						0.850						0.850
Flt Protected				0.950	0.955		0.950					
Satd. Flow (prot)	0	0	0	1681	1690	1583	3433	3539	0	0	3539	1583
Flt Permitted				0.950	0.955		0.950					
Satd. Flow (perm)	0	0	0	1681	1690	1583	3433	3539	0	0	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						51						276
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		894			1008			410			866	
Travel Time (s)		20.3			22.9			6.2			13.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	166	4	442	826	1817	0	0	1839	345
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	0	0	85	85	442	826	1817	0	0	1839	345
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			40			50	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			2	1
Detector Template												
Leading Detector (ft)				45	45	45	45	290			290	45
Trailing Detector (ft)				-6	-6	-6	-6	284			284	-6
Detector 1 Position(ft)				-6	-6	-6	-6	-6			-6	-6
Detector 1 Size(ft)				51	51	51	51	51			51	51
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call			Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type				Perm	NA	custom	Prot	NA			NA	Perm
Protected Phases					8	1	5	2			6	
Permitted Phases				8		8						6
Detector Phase				8	8	1	5	2			6	6

Lane Group	ø4
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)				3.0	3.0	3.0	3.0	10.0			10.0	10.0
Minimum Split (s)				18.0	18.0	8.0	8.0	20.0			20.0	20.0
Total Split (s)				18.0	18.0	54.0	42.0	78.0			90.0	90.0
Total Split (%)				12.0%	12.0%	36.0%	28.0%	52.0%			60.0%	60.0%
Maximum Green (s)				13.0	13.0	49.0	37.0	73.0			85.0	85.0
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
All-Red Time (s)				1.0	1.0	1.0	1.0	1.0			1.0	1.0
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)				5.0	5.0	5.0	5.0	5.0			5.0	5.0
Lead/Lag						Lag	Lead	Lead			Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0	2.0	3.5	2.0			6.0	6.0
Recall Mode				None	None	None	Max	C-Max			Max	Max
Act Effct Green (s)				12.5	12.5	66.5	37.5	73.5			85.0	85.0
Actuated g/C Ratio				0.08	0.08	0.44	0.25	0.49			0.57	0.57
v/c Ratio				0.61	0.61	0.61	0.96	1.05			0.92	0.34
Control Delay				85.3	84.8	31.9	64.4	41.0			41.0	6.4
Queue Delay				0.0	0.0	0.0	31.4	21.8			21.0	0.0
Total Delay				85.3	84.8	31.9	95.8	62.9			62.0	6.4
LOS				F	F	C	F	E			E	A
Approach Delay					46.7			73.2			53.2	
Approach LOS					D			E			D	
Queue Length 50th (ft)				85	85	287	325	~1047			958	50
Queue Length 95th (ft)				149	149	405	#540	#1187			m1042	m76
Internal Link Dist (ft)		814			928			330			786	
Turn Bay Length (ft)						525	300					575
Base Capacity (vph)				145	146	729	858	1735			2005	1016
Starvation Cap Reductn				0	0	0	89	0			228	0
Spillback Cap Reductn				0	0	2	0	203			236	0
Storage Cap Reductn				0	0	0	0	0			0	0
Reduced v/c Ratio				0.59	0.58	0.61	1.07	1.19			1.04	0.34

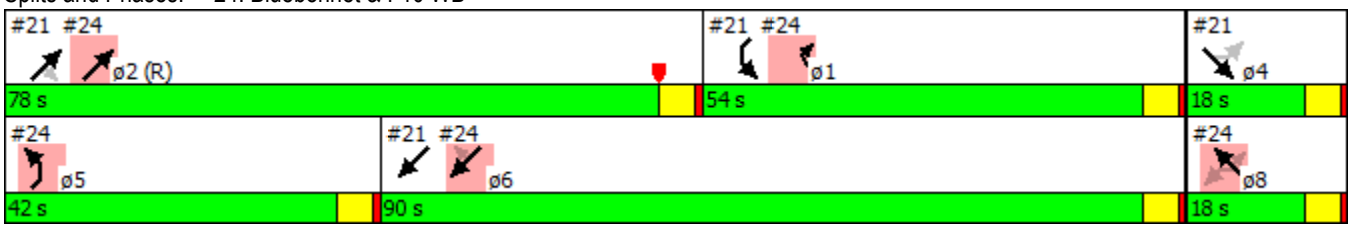
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 138 (92%), Referenced to phase 2:NET, Start of Yellow			
Natural Cycle: 140			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.21			
Intersection Signal Delay: 62.2		Intersection LOS: E	
Intersection Capacity Utilization 89.3%		ICU Level of Service E	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

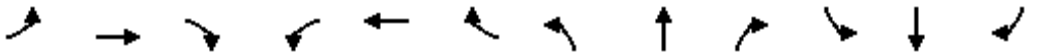
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 24: Bluebonnet & I-10 WB

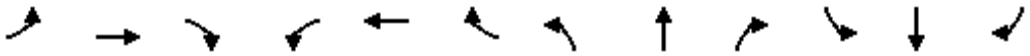


Lane Group	ø4
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	18.0
Total Split (s)	18.0
Total Split (%)	12%
Maximum Green (s)	13.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	107	18	104	599	92	210	46	1895	205	43	1372	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		200	300		175	175		175
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.872			0.938	0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3086	0	3433	1660	1504	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.077			0.050		
Satd. Flow (perm)	1770	3086	0	3433	1660	1504	143	3539	1583	93	3539	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		84										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		475			1072			866			1049	
Travel Time (s)		10.8			24.4			13.1			15.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	113	19	109	631	97	221	48	1995	216	45	1444	15
Shared Lane Traffic (%)						31%						
Lane Group Flow (vph)	113	128	0	631	166	152	48	1995	216	45	1444	15
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		60			60			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4		3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases							2			6		
Detector Phase	7	4		3	8	8 1	5	2	2 3	1	6	6 7

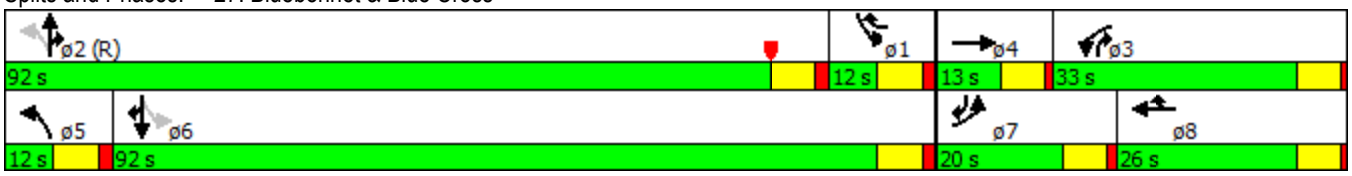


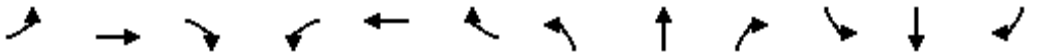
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	5.0		5.0	3.0		3.0	20.0		5.0	20.0	
Minimum Split (s)	8.9	10.9		10.9	8.9		9.6	26.6		11.6	26.6	
Total Split (s)	20.0	13.0		33.0	26.0		12.0	92.0		12.0	92.0	
Total Split (%)	13.3%	8.7%		22.0%	17.3%		8.0%	61.3%		8.0%	61.3%	
Maximum Green (s)	14.1	7.1		27.1	20.1		5.4	85.4		5.4	85.4	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	0.9	0.9		0.9	0.9		1.6	1.6		1.6	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.9	5.9		5.9	5.9		6.6	6.6		6.6	6.6	
Lead/Lag	Lead	Lead		Lag	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		2.5	1.5		1.5	5.0		1.5	5.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	12.4	6.1		28.1	21.8	27.9	85.4	85.4	119.4	87.8	87.8	106.2
Actuated g/C Ratio	0.08	0.04		0.19	0.15	0.19	0.57	0.57	0.80	0.59	0.59	0.71
v/c Ratio	0.77	0.62		0.98	0.69	0.54	0.35	0.99	0.17	0.39	0.70	0.01
Control Delay	98.9	40.4		91.2	76.9	54.8	10.5	24.5	2.4	41.6	20.6	5.3
Queue Delay	0.0	0.3		0.0	0.0	0.0	0.0	31.6	0.0	0.0	19.7	0.0
Total Delay	98.9	40.8		91.2	76.9	54.8	10.5	56.1	2.4	41.6	40.2	5.3
LOS	F	D		F	E	D	B	E	A	D	D	A
Approach Delay		68.0			82.8			50.0			39.9	
Approach LOS		E			F			D			D	
Queue Length 50th (ft)	109	22		321	166	113	8	821	29	18	396	3
Queue Length 95th (ft)	#194	58		#459	#281	178	m10	m601	m24	34	443	m6
Internal Link Dist (ft)		395			992			786			969	
Turn Bay Length (ft)	75			200		200	300		175	175		175
Base Capacity (vph)	166	226		643	241	279	139	2014	1259	114	2072	1138
Starvation Cap Reductn	0	0		0	0	0	0	171	0	0	0	0
Spillback Cap Reductn	0	7		0	0	0	0	0	0	0	664	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.58		0.98	0.69	0.54	0.35	1.08	0.17	0.39	1.03	0.01

Intersection Summary

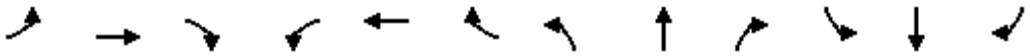
Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 7 (5%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 54.1 Intersection LOS: D
Intersection Capacity Utilization 89.0% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 27: Bluebonnet & Blue Cross





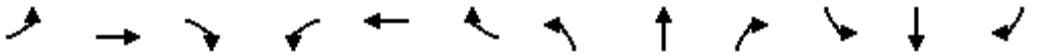
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	1	17	37	0	4	35	2160	17	2	1375	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		130	150		185
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.922			0.987				0.850			0.850
Flt Protected		0.981			0.957		0.950			0.950		
Satd. Flow (prot)	0	1685	0	0	1759	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.892			0.723		0.172			0.059		
Satd. Flow (perm)	0	1532	0	0	1329	0	320	3539	1583	110	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			22				22			22
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1129			1330			1049			1811	
Travel Time (s)		25.7			30.2			15.9			27.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	12	1	18	39	0	4	37	2274	18	2	1447	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	31	0	0	43	0	37	2274	18	2	1447	9
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



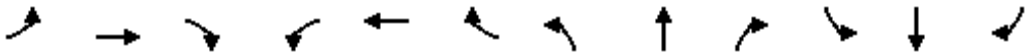
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	11.0	11.0		11.0	11.0		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	30.0	30.0		30.0	30.0		120.0	120.0	120.0	120.0	120.0	120.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		80.0%	80.0%	80.0%	80.0%	80.0%	80.0%
Maximum Green (s)	24.0	24.0		24.0	24.0		114.0	114.0	114.0	114.0	114.0	114.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		7.9			7.9		133.5	133.5	133.5	133.5	133.5	133.5
Actuated g/C Ratio		0.05			0.05		0.89	0.89	0.89	0.89	0.89	0.89
v/c Ratio		0.32			0.47		0.13	0.72	0.01	0.02	0.46	0.01
Control Delay		45.2			56.0		1.0	2.1	0.0	2.0	2.4	0.2
Queue Delay		0.0			0.0		0.0	0.5	0.0	0.0	0.0	0.0
Total Delay		45.2			56.0		1.0	2.6	0.0	2.0	2.4	0.2
LOS		D			E		A	A	A	A	A	A
Approach Delay		45.2			56.0			2.6			2.3	
Approach LOS		D			E			A			A	
Queue Length 50th (ft)		12			20		2	60	0	0	116	0
Queue Length 95th (ft)		47			62		m2	m97	m0	m1	151	m0
Internal Link Dist (ft)		1049			1250			969			1731	
Turn Bay Length (ft)							150		130	150		185
Base Capacity (vph)		260			231		284	3150	1411	98	3150	1411
Starvation Cap Reductn		0			0		0	402	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.12			0.19		0.13	0.83	0.01	0.02	0.46	0.01

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 46 (31%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 3.4		Intersection LOS: A	
Intersection Capacity Utilization 74.5%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 30: Bluebonnet & Gail



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	10	83	22	4	6	194	1882	99	12	1281	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.892			0.975				0.850			0.850
Flt Protected		0.995			0.966		0.950			0.950		
Satd. Flow (prot)	0	1653	0	0	1754	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.959			0.395		0.190			0.087		
Satd. Flow (perm)	0	1593	0	0	717	0	354	3539	1583	162	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		87			6				70			37
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1794			2049			1811			2409	
Travel Time (s)		40.8			46.6			27.4			36.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	11	87	23	4	6	204	1981	104	13	1348	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	109	0	0	33	0	204	1981	104	13	1348	37
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6

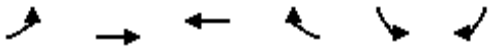


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	9.2	9.2		9.2	9.2		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	30.0	30.0		30.0	30.0		120.0	120.0	120.0	120.0	120.0	120.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		80.0%	80.0%	80.0%	80.0%	80.0%	80.0%
Maximum Green (s)	23.8	23.8		23.8	23.8		114.0	114.0	114.0	114.0	114.0	114.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.2	1.2		1.2	1.2		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.2			6.2		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		8.6			8.6		129.2	129.2	129.2	129.2	129.2	129.2
Actuated g/C Ratio		0.06			0.06		0.86	0.86	0.86	0.86	0.86	0.86
v/c Ratio		0.63			0.72		0.67	0.65	0.08	0.09	0.44	0.03
Control Delay		35.5			123.8		13.1	4.2	0.8	3.6	3.0	0.7
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		35.5			123.8		13.1	4.2	0.8	3.6	3.0	0.7
LOS		D			F		B	A	A	A	A	A
Approach Delay		35.5			123.8			4.8			3.0	
Approach LOS		D			F			A			A	
Queue Length 50th (ft)		21			27		13	68	0	1	113	0
Queue Length 95th (ft)		84			#65		m63	168	m7	7	185	6
Internal Link Dist (ft)		1714			1969			1731			2329	
Turn Bay Length (ft)							150		150	150		150
Base Capacity (vph)		325			118		304	3047	1372	139	3047	1368
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.34			0.28		0.67	0.65	0.08	0.09	0.44	0.03

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 46 (31%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 6.1		Intersection LOS: A	
Intersection Capacity Utilization 100.1%		ICU Level of Service G	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 33: Bluebonnet & Oliphant



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Lane Configurations												
Volume (vph)	158	494	135	284	159	105						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.95						
Frt				0.850	0.940							
Flt Protected	0.950				0.971							
Satd. Flow (prot)	1770	1863	1863	1583	3298	0						
Flt Permitted	0.513				0.971							
Satd. Flow (perm)	956	1863	1863	1583	3298	0						
Right Turn on Red				Yes		Yes						
Satd. Flow (RTOR)				309	105							
Link Speed (mph)		30	30		30							
Link Distance (ft)		819	802		318							
Travel Time (s)		18.6	18.2		7.2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	172	537	147	309	173	114						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	172	537	147	309	287	0						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Right	Left	Right						
Median Width(ft)		12	0		36							
Link Offset(ft)		0	0		0							
Crosswalk Width(ft)		16	16		16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15			9	15	9						
Number of Detectors	1	2	2	1	1							
Detector Template	Left	Thru	Thru	Right	Left							
Leading Detector (ft)	20	100	100	20	20							
Trailing Detector (ft)	0	0	0	0	0							
Detector 1 Position(ft)	0	0	0	0	0							
Detector 1 Size(ft)	20	6	6	20	20							
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex							
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0							
Detector 2 Position(ft)		94	94									
Detector 2 Size(ft)		6	6									
Detector 2 Type		Cl+Ex	Cl+Ex									
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0									
Turn Type	D.P+P	NA	NA	pm+ov	Prot							
Protected Phases	8	8 11	11	9 10	9 10		1	2	4	5	7	9
Permitted Phases	11			11								
Detector Phase	8	8 11	11	9 10	9 10							
Switch Phase												
Minimum Initial (s)	4.0		14.0				4.0	4.0	14.0	4.0	14.0	4.0
Minimum Split (s)	22.0		20.0				10.0	10.0	20.0	10.0	20.0	10.0

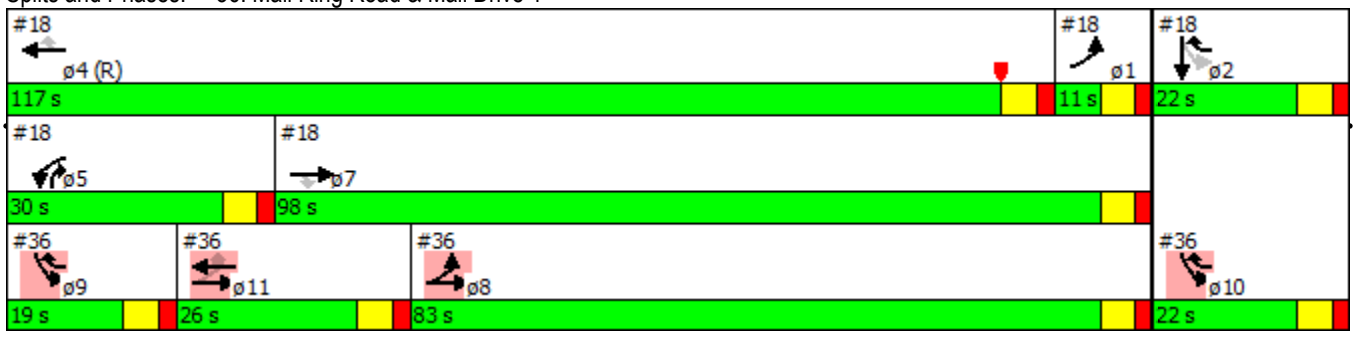
Lane Group	ø10
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	10
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	22.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Total Split (s)	83.0		26.0				11.0	22.0	117.0	30.0	98.0	19.0
Total Split (%)	55.3%		17.3%				7%	15%	78%	20%	65%	13%
Maximum Green (s)	77.0		20.0				5.0	16.0	111.0	24.0	92.0	13.0
Yellow Time (s)	4.0		4.0				4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0				2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0									
Total Lost Time (s)	6.0		6.0									
Lead/Lag			Lag				Lag		Lead	Lead	Lag	Lead
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0		4.3				2.5	2.0	4.3	2.5	4.3	3.0
Minimum Gap (s)	3.0		2.2				0.2	0.2	2.2	0.2	2.2	3.0
Time Before Reduce (s)	0.0		34.0				0.0	0.0	34.0	0.0	0.0	0.0
Time To Reduce (s)	0.0		15.0				0.0	0.0	15.0	0.0	0.0	0.0
Recall Mode	None		None				None	None	C-Min	None	None	None
Act Effct Green (s)	107.4	113.4	23.2	53.8	24.6							
Actuated g/C Ratio	0.72	0.76	0.15	0.36	0.16							
v/c Ratio	0.15	0.38	0.51	0.40	0.46							
Control Delay	6.4	7.6	64.0	4.4	91.6							
Queue Delay	0.0	0.2	0.0	0.0	0.4							
Total Delay	6.4	7.8	64.0	4.4	92.0							
LOS	A	A	E	A	F							
Approach Delay		7.5	23.6		92.0							
Approach LOS		A	C		F							
Queue Length 50th (ft)	49	195	132	0	123							
Queue Length 95th (ft)	94	325	205	60	164							
Internal Link Dist (ft)		739	722		238							
Turn Bay Length (ft)												
Base Capacity (vph)	1141	1402	297	750	740							
Starvation Cap Reductn	0	304	0	0	151							
Spillback Cap Reductn	0	0	0	0	0							
Storage Cap Reductn	0	0	0	0	0							
Reduced v/c Ratio	0.15	0.49	0.49	0.41	0.49							

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 113 (75%), Referenced to phase 4:WBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 29.2 Intersection LOS: C
Intersection Capacity Utilization 43.8% ICU Level of Service A
Analysis Period (min) 15

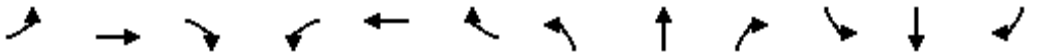
Splits and Phases: 36: Mall Ring Road & Mall Drive 1



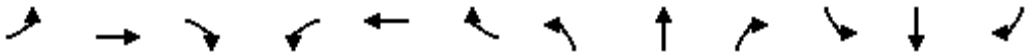
Lane Group	ø10
Total Split (s)	22.0
Total Split (%)	15%
Maximum Green (s)	16.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Minimum Gap (s)	3.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

M.31 2037 NO BUILD WEEKEND – BLUEBONNET BOULEVARD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	190	787	929	499	932	499	312	676	218	358	656	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		250	325		375	350		0	250		150
Storage Lanes	2		1	2		1	2		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Frt			0.850			0.850		0.963				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3408	0	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3408	0	3433	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								31				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		2445			3864			2201			709	
Travel Time (s)		37.0			58.5			33.3			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	200	828	978	525	981	525	328	712	229	377	691	153
Shared Lane Traffic (%)												
Lane Group Flow (vph)	200	828	978	525	981	525	328	941	0	377	691	153
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45	45	290		45	290	45
Trailing Detector (ft)	-6	284	-6	-6	284	-6	-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6	-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51	51	51		51	51	51
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		284			284			284			284	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Extend			Extend			Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8		7	4	4 5
Permitted Phases												
Detector Phase	5	2	2 3	1	6	6 7	3	8		7	4	4 5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	10.0		4.0	10.0	
Minimum Split (s)	11.0	34.5		11.0	37.5		11.0	41.0		11.0	41.0	
Total Split (s)	16.0	38.0		25.0	47.0		43.0	58.0		29.0	44.0	
Total Split (%)	10.7%	25.3%		16.7%	31.3%		28.7%	38.7%		19.3%	29.3%	
Maximum Green (s)	9.0	31.5		18.0	40.5		36.0	51.0		22.0	37.0	
Yellow Time (s)	5.0	4.5		5.0	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	6.5		7.0	6.5		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.3		3.0	4.3		3.0	3.9		3.0	3.9	
Minimum Gap (s)	0.2	2.2		0.2	2.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	15.0		0.0	15.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0		0.0	10.0		0.0	10.0	
Recall Mode	None	Min		None	Min		None	Min		None	C-Min	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		23.0			26.0			29.0			29.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	9.0	31.5	72.7	18.0	40.5	68.1	40.7	52.4		20.6	32.3	41.3
Actuated g/C Ratio	0.06	0.21	0.48	0.12	0.27	0.45	0.27	0.35		0.14	0.22	0.28
v/c Ratio	0.98	1.11	1.28	1.28	1.03	0.73	0.35	0.78		0.80	0.91	0.35
Control Delay	125.7	122.0	157.3	193.0	89.2	40.4	46.2	47.7		63.7	53.9	19.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2		0.0	0.0	0.0
Total Delay	125.7	122.0	157.3	193.0	89.2	40.4	46.2	48.0		63.7	53.9	19.2
LOS	F	F	F	F	F	D	D	D		E	D	B
Approach Delay		139.6			103.4			47.5			52.6	
Approach LOS		F			F			D			D	
Queue Length 50th (ft)	102	~487	~937	~333	~537	407	135	426		183	351	88
Queue Length 95th (ft)	#188	#621	#1518	#452	#674	555	188	513		218	331	80
Internal Link Dist (ft)		2365			3784			2121			629	
Turn Bay Length (ft)	440		250	325		375	350			250		150
Base Capacity (vph)	205	743	767	411	955	733	931	1210		503	872	485
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	28		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.98	1.11	1.28	1.28	1.03	0.72	0.35	0.80		0.75	0.79	0.32

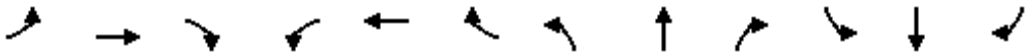
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 88 (59%), Referenced to phase 4:SBT, Start of Yellow			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.28			
Intersection Signal Delay: 94.1		Intersection LOS: F	
Intersection Capacity Utilization 107.0%		ICU Level of Service G	

Analysis Period (min) 15

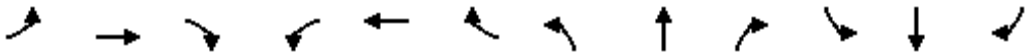
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Bluebonnet & Perkins



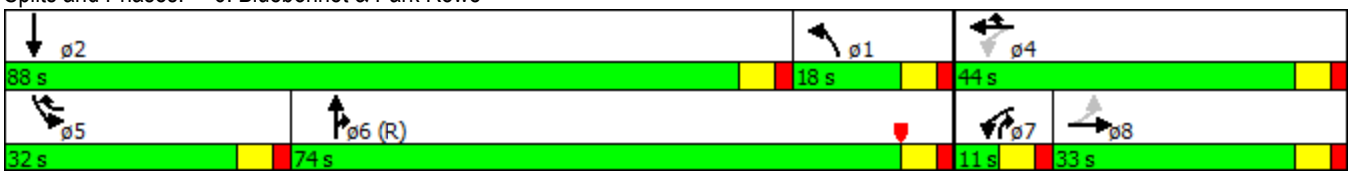
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	151	25	51	51	13	164	67	1221	77	395	1058	103
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		125	160		160	175		0
Storage Lanes	1		0	0		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.899				0.850			0.850		0.987	
Flt Protected	0.950				0.962		0.950			0.950		
Satd. Flow (prot)	1770	1675	0	0	1792	1583	1770	3539	1583	3433	3493	0
Flt Permitted	0.713				0.622		0.950			0.950		
Satd. Flow (perm)	1328	1675	0	0	1159	1583	1770	3539	1583	3433	3493	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		54									11	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		511			1048			709			2556	
Travel Time (s)		11.6			23.8			10.7			38.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	159	26	54	54	14	173	71	1285	81	416	1114	108
Shared Lane Traffic (%)												
Lane Group Flow (vph)	159	80	0	0	68	173	71	1285	81	416	1222	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290	45	45	290	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284	-6	-6	284	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6	-6	-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	
Protected Phases		8		7	4	4 5	1	6	6 7	5	2	
Permitted Phases	8			4								
Detector Phase	8	8		7	4	4 5	1	6	6 7	5	2	

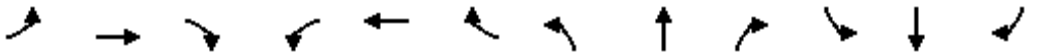


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		3.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	11.0	11.0		9.0	11.0		9.0	21.0		9.0	21.0	
Total Split (s)	33.0	33.0		11.0	44.0		18.0	74.0		32.0	88.0	
Total Split (%)	22.0%	22.0%		7.3%	29.3%		12.0%	49.3%		21.3%	58.7%	
Maximum Green (s)	27.0	27.0		5.0	38.0		12.0	68.0		26.0	82.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag		Lead			Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		1.5	2.0		1.5	4.0		1.5	4.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	21.7	21.7			32.0	59.9	18.2	78.1	88.5	21.9	84.0	
Actuated g/C Ratio	0.14	0.14			0.21	0.40	0.12	0.52	0.59	0.15	0.56	
v/c Ratio	0.83	0.28			0.26	0.27	0.33	0.70	0.09	0.83	0.62	
Control Delay	94.1	23.7			49.0	30.1	57.8	28.2	14.5	76.9	26.5	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.5	0.0	0.0	0.0	
Total Delay	94.1	23.7			49.0	30.1	57.8	28.6	14.5	76.9	26.5	
LOS	F	C			D	C	E	C	B	E	C	
Approach Delay		70.5			35.4			29.3			39.3	
Approach LOS		E			D			C			D	
Queue Length 50th (ft)	153	22			55	112	53	455	30	206	450	
Queue Length 95th (ft)	231	71			96	153	m75	m502	m0	259	567	
Internal Link Dist (ft)		431			968			629			2476	
Turn Bay Length (ft)	100					125	160		160	175		
Base Capacity (vph)	240	346			312	664	230	1842	940	595	2064	
Starvation Cap Reductn	0	0			0	0	0	191	0	0	0	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.66	0.23			0.22	0.26	0.31	0.78	0.09	0.70	0.59	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 138 (92%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 37.1		Intersection LOS: D	
Intersection Capacity Utilization 75.1%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Bluebonnet & Park Rowe





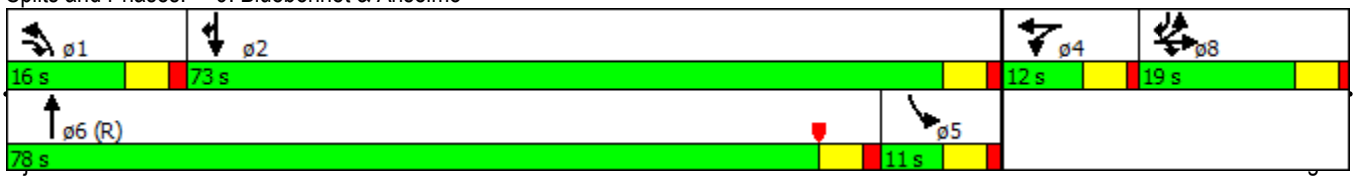
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	217	1	84	0	0	2	69	1467	0	1	1472	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	475		475	50		0	425		0	130		130
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.850							0.850
Flt Protected	0.950	0.953					0.950			0.950		
Satd. Flow (prot)	1681	1686	1583	1863	1583	0	1770	3539	0	1770	3539	1583
Flt Permitted	0.950	0.953					0.950			0.950		
Satd. Flow (perm)	1681	1686	1583	1863	1583	0	1770	3539	0	1770	3539	1583
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)					168							
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1004			740			2556			469	
Travel Time (s)		22.8			16.8			38.7			7.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	228	1	88	0	0	2	73	1544	0	1	1549	163
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	114	115	88	0	2	0	73	1544	0	1	1549	163
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	45	45	45		45	290		45	290	45
Trailing Detector (ft)	-6	-6	-6	-6	-6		-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6		-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51		51	51		51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA		Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4		1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4		1	6		5	2	2 8

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.5	25.5		8.5	25.5	
Total Split (s)	19.0	19.0		12.0	12.0		16.0	78.0		11.0	73.0	
Total Split (%)	15.8%	15.8%		10.0%	10.0%		13.3%	65.0%		9.2%	60.8%	
Maximum Green (s)	14.0	14.0		7.0	7.0		10.5	72.5		5.5	67.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	6.0		3.0	6.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	14.7	14.7	29.9		7.3		9.7	90.2		5.6	77.2	95.8
Actuated g/C Ratio	0.12	0.12	0.25		0.06		0.08	0.75		0.05	0.64	0.80
v/c Ratio	0.55	0.56	0.22		0.01		0.51	0.58		0.01	0.68	0.13
Control Delay	59.9	60.0	36.4		0.0		65.4	9.3		51.0	12.1	1.8
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.1	0.0
Total Delay	59.9	60.0	36.4		0.0		65.4	9.3		51.0	12.1	1.8
LOS	E	E	D		A		E	A		D	B	A
Approach Delay		53.4			0.0			11.8			11.2	
Approach LOS		D			A			B			B	
Queue Length 50th (ft)	87	88	53		0		55	209		1	217	5
Queue Length 95th (ft)	155	157	101		0		105	501		m2	247	26
Internal Link Dist (ft)		924			660			2476			389	
Turn Bay Length (ft)	475		475				425			130		130
Base Capacity (vph)	218	218	394		253		159	2659		82	2276	1275
Starvation Cap Reductn	0	0	0		0		0	0		0	88	0
Spillback Cap Reductn	0	0	0		0		0	0		0	0	0
Storage Cap Reductn	0	0	0		0		0	0		0	0	0
Reduced v/c Ratio	0.52	0.53	0.22		0.01		0.46	0.58		0.01	0.71	0.13

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 91 (76%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 15.1 Intersection LOS: B
Intersection Capacity Utilization 70.5% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Bluebonnet & Anselmo



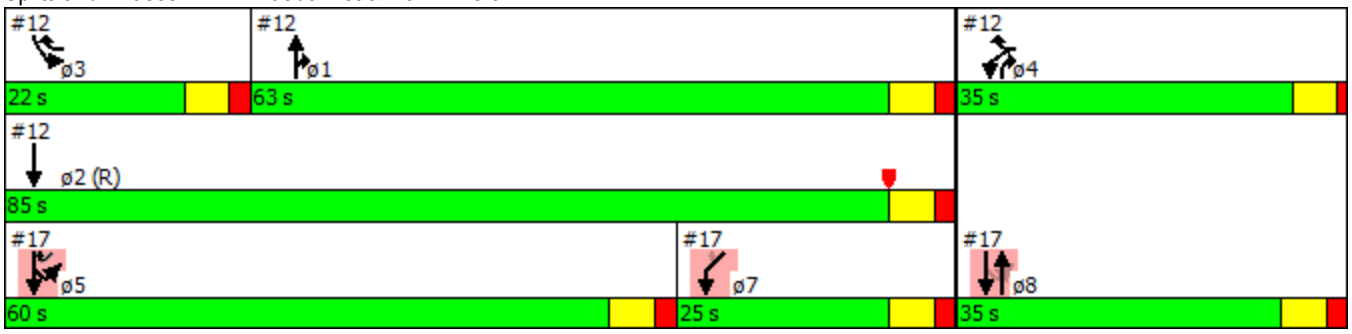
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Lane Configurations									
Volume (vph)	366	169	1052	634	123	1262			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	0	100		150	350				
Storage Lanes	2	1		1	1				
Taper Length (ft)	25				25				
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.91			
Frt		0.850		0.850					
Flt Protected	0.950				0.950				
Satd. Flow (prot)	3433	1583	3539	1583	1770	5085			
Flt Permitted	0.950				0.950				
Satd. Flow (perm)	3433	1583	3539	1583	1770	5085			
Right Turn on Red		No		No					
Satd. Flow (RTOR)									
Link Speed (mph)	30		45			45			
Link Distance (ft)	352		390			974			
Travel Time (s)	8.0		5.9			14.8			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95			
Adj. Flow (vph)	385	178	1107	667	129	1328			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	385	178	1107	667	129	1328			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Right	Left	Left			
Median Width(ft)	35		20			20			
Link Offset(ft)	0		0			0			
Crosswalk Width(ft)	16		16			16			
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Turning Speed (mph)	15	9		9	15				
Number of Detectors	1	1	2	1	1	2			
Detector Template									
Leading Detector (ft)	45	45	290	45	45	290			
Trailing Detector (ft)	-6	-6	284	-6	-6	284			
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			
Detector 1 Size(ft)	51	51	51	51	51	51			
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call			
Detector 1 Channel									
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)			284			284			
Detector 2 Size(ft)			6			6			
Detector 2 Type			Extend			Extend			
Detector 2 Channel									
Detector 2 Extend (s)			0.0			0.0			
Turn Type	Prot	pt+ov	NA	pt+ov	Prot	NA			
Protected Phases	4	4 3	1	1 4	3	2	5	7	8
Permitted Phases									
Detector Phase	4	4 3	1	1 4	3	2			

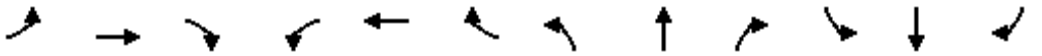
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Switch Phase									
Minimum Initial (s)	4.0		24.0		4.0	34.0	4.0	4.0	29.0
Minimum Split (s)	10.0		30.0		10.0	40.0	10.0	22.0	35.0
Total Split (s)	35.0		63.0		22.0	85.0	60.0	25.0	35.0
Total Split (%)	29.2%		52.5%		18.3%	70.8%	50%	21%	29%
Maximum Green (s)	30.0		57.0		16.0	79.0	54.0	19.0	29.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0			
Total Lost Time (s)	5.0		6.0		6.0	6.0			
Lead/Lag			Lag		Lead		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	
Vehicle Extension (s)	2.5		4.3		2.0	4.3	2.5	3.0	4.3
Minimum Gap (s)	0.2		2.2		0.2	2.2	0.2	3.0	2.2
Time Before Reduce (s)	0.0		20.0		0.0	30.0	0.0	0.0	30.0
Time To Reduce (s)	0.0		15.0		0.0	15.0	0.0	0.0	15.0
Recall Mode	None		Min		None	C-Min	Max	None	Min
Walk Time (s)								5.0	
Flash Dont Walk (s)								11.0	
Pedestrian Calls (#/hr)								0	
Act Effct Green (s)	30.0	48.7	60.3	95.3	12.7	79.0			
Actuated g/C Ratio	0.25	0.41	0.50	0.79	0.11	0.66			
v/c Ratio	0.45	0.28	0.62	0.53	0.69	0.40			
Control Delay	19.6	10.5	19.1	6.3	86.9	2.6			
Queue Delay	0.0	0.6	0.0	0.0	0.0	0.0			
Total Delay	19.6	11.1	19.1	6.3	86.9	2.6			
LOS	B	B	B	A	F	A			
Approach Delay	16.9		14.3			10.1			
Approach LOS	B		B			B			
Queue Length 50th (ft)	81	66	349	268	107	46			
Queue Length 95th (ft)	101	52	197	87	167	31			
Internal Link Dist (ft)	272		310			894			
Turn Bay Length (ft)		100		150	350				
Base Capacity (vph)	858	685	1777	1256	236	3347			
Starvation Cap Reductn	0	260	0	0	0	0			
Spillback Cap Reductn	0	0	0	0	0	0			
Storage Cap Reductn	0	0	0	0	0	0			
Reduced v/c Ratio	0.45	0.42	0.62	0.53	0.55	0.40			

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 86 (72%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 13.1		Intersection LOS: B	
Intersection Capacity Utilization 60.5%		ICU Level of Service B	

Analysis Period (min) 15

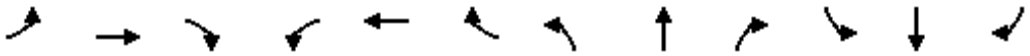
Splits and Phases: 12: Bluebonnet & Mall Drive 3





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	171	73	93	106	68	237	97	1014	110	354	1186	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	140		140	200		200	200		160
Storage Lanes	2		0	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		0.916				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3242	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3242	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		98										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1050			403			974			1065	
Travel Time (s)		23.9			9.2			14.8			16.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	180	77	98	112	72	249	102	1067	116	373	1248	163
Shared Lane Traffic (%)												
Lane Group Flow (vph)	180	175	0	112	72	249	102	1067	116	373	1248	163
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			36			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pt+ov
Protected Phases	3	2		9	8	8 6	1	10	10 9	6	5	5 3
Permitted Phases												
Detector Phase	3	2		9	8	8 6	1	10	10 9	6	5	5 3

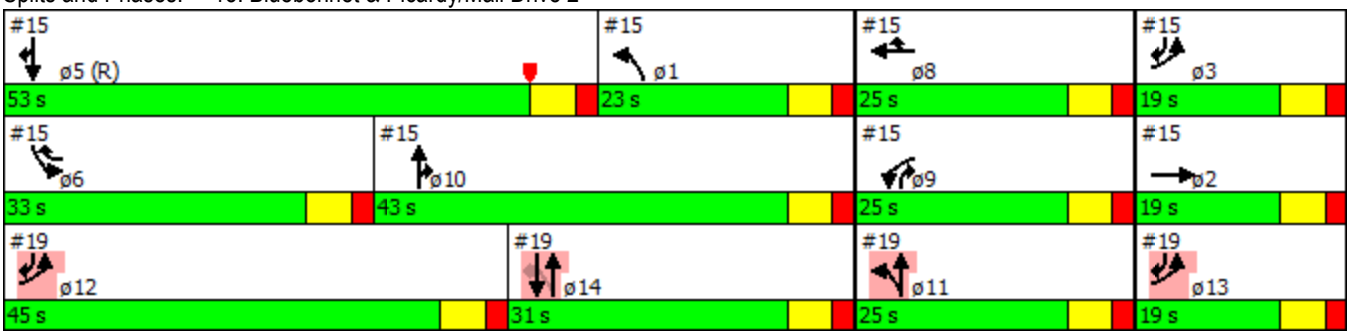
Lane Group	ø11	ø12	ø13	ø14
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	11	12	13	14
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	21.0		3.0	21.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		11.0	27.0		11.0	27.0	
Total Split (s)	19.0	19.0		25.0	25.0		23.0	43.0		33.0	53.0	
Total Split (%)	15.8%	15.8%		20.8%	20.8%		19.2%	35.8%		27.5%	44.2%	
Maximum Green (s)	13.0	13.0		19.0	19.0		17.0	37.0		27.0	47.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.0		1.0	1.0		3.0	4.3		1.0	4.3	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	28.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	15.0	
Recall Mode	None	None		None	None		None	None		None	C-Min	
Act Effct Green (s)	18.1	18.1		14.5	14.5	44.6	15.8	33.3	53.8	30.1	47.6	71.7
Actuated g/C Ratio	0.15	0.15		0.12	0.12	0.37	0.13	0.28	0.45	0.25	0.40	0.60
v/c Ratio	0.35	0.31		0.27	0.17	0.42	0.44	0.76	0.16	0.43	0.62	0.17
Control Delay	47.7	21.9		26.1	24.9	24.9	34.3	24.5	8.0	54.1	19.6	11.8
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	21.9		26.1	24.9	24.9	34.3	24.5	8.0	54.1	19.6	11.8
LOS	D	C		C	C	C	C	C	A	D	B	B
Approach Delay		35.0			25.2			23.8			26.1	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	61	26		38	24	158	57	168	17	108	121	43
Queue Length 95th (ft)	106	65		m53	m35	168	m108	191	m18	145	114	54
Internal Link Dist (ft)		970			323			894			985	
Turn Bay Length (ft)	150			140		140	200		200	200		160
Base Capacity (vph)	519	573		551	568	688	263	1603	753	940	2168	978
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.31		0.20	0.13	0.36	0.39	0.67	0.15	0.40	0.58	0.17

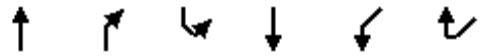
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 69 (58%), Referenced to phase 5:SBT, Start of Yellow			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 26.1		Intersection LOS: C	
Intersection Capacity Utilization 58.0%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 15: Bluebonnet & Picardy/Mall Drive 2

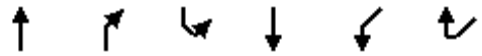


Lane Group	ø11	ø12	ø13	ø14
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	3.0
Minimum Split (s)	10.0	22.0	10.0	9.0
Total Split (s)	25.0	45.0	19.0	31.0
Total Split (%)	21%	38%	16%	26%
Maximum Green (s)	19.0	39.0	13.0	25.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	1.0
Minimum Gap (s)	3.0	3.0	3.0	0.2
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



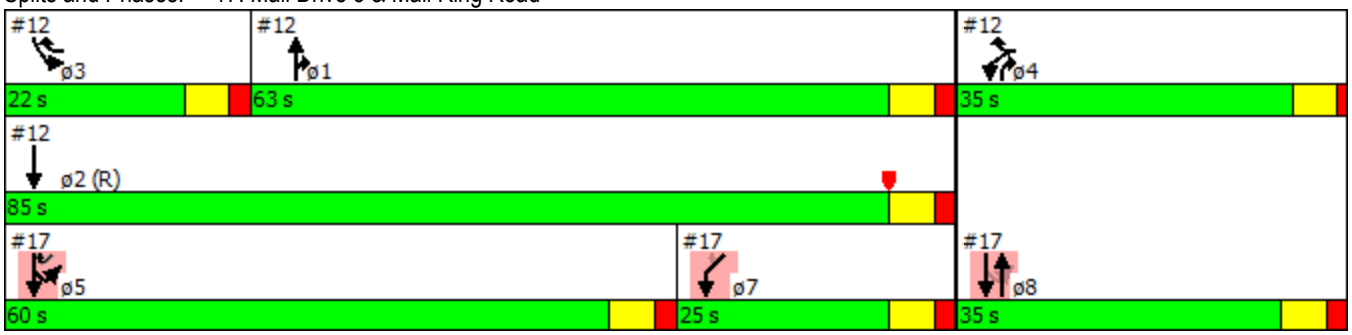
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Lane Configurations										
Volume (vph)	305	173	388	369	242	230				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00				
Frt	0.946					0.850				
Flt Protected			0.950		0.950					
Satd. Flow (prot)	3348	0	1770	1863	1770	1583				
Flt Permitted			0.296		0.950					
Satd. Flow (perm)	3348	0	551	1863	1770	1583				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)	86					180				
Link Speed (mph)	30			30	30					
Link Distance (ft)	797			352	1050					
Travel Time (s)	18.1			8.0	23.9					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Adj. Flow (vph)	332	188	422	401	263	250				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	520	0	422	401	263	250				
Enter Blocked Intersection	No	No	No	No	No	No				
Lane Alignment	Left	Right	Left	Left	Left	Right				
Median Width(ft)	0			12	12					
Link Offset(ft)	0			0	0					
Crosswalk Width(ft)	16			16	16					
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)		9	15		15	9				
Number of Detectors	2		1	2	1	1				
Detector Template	Thru		Left	Thru	Left	Right				
Leading Detector (ft)	100		20	100	20	20				
Trailing Detector (ft)	0		0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0				
Detector 1 Size(ft)	6		20	6	20	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel										
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0				
Detector 2 Position(ft)	94			94						
Detector 2 Size(ft)	6			6						
Detector 2 Type	Cl+Ex			Cl+Ex						
Detector 2 Channel										
Detector 2 Extend (s)	0.0			0.0						
Turn Type	NA		D.P+P	NA	Prot	pm+ov				
Protected Phases	8		5	5 8	7	5	1	2	3	4
Permitted Phases			8			7				
Detector Phase	8		5	5 8	7	5				
Switch Phase										
Minimum Initial (s)	29.0		4.0		4.0	4.0	24.0	34.0	4.0	4.0
Minimum Split (s)	35.0		10.0		22.0	10.0	30.0	40.0	10.0	10.0

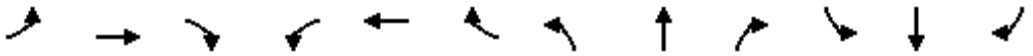


Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Total Split (s)	35.0		60.0		25.0	60.0	63.0	85.0	22.0	35.0
Total Split (%)	29.2%		50.0%		20.8%	50.0%	53%	71%	18%	29%
Maximum Green (s)	29.0		54.0		19.0	54.0	57.0	79.0	16.0	30.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0		2.0	2.0	2.0	2.0	2.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0				
Total Lost Time (s)	6.0		6.0		6.0	6.0				
Lead/Lag			Lead		Lag	Lead	Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	Yes				
Vehicle Extension (s)	4.3		2.5		3.0	2.5	4.3	4.3	2.0	2.5
Minimum Gap (s)	2.2		0.2		3.0	0.2	2.2	2.2	0.2	0.2
Time Before Reduce (s)	30.0		0.0		0.0	0.0	20.0	30.0	0.0	0.0
Time To Reduce (s)	15.0		0.0		0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	Min		Max		None	Max	Min	C-Min	None	None
Walk Time (s)					5.0					
Flash Dont Walk (s)					11.0					
Pedestrian Calls (#/hr)					0					
Act Effct Green (s)	29.0		83.0	89.0	19.0	79.0				
Actuated g/C Ratio	0.24		0.69	0.74	0.16	0.66				
v/c Ratio	0.59		0.45	0.29	0.94	0.23				
Control Delay	36.5		13.2	6.4	69.9	4.2				
Queue Delay	0.0		0.5	0.9	0.0	0.0				
Total Delay	36.5		13.6	7.3	69.9	4.2				
LOS	D		B	A	E	A				
Approach Delay	36.5			10.6	37.9					
Approach LOS	D			B	D					
Queue Length 50th (ft)	157		71	66	198	0				
Queue Length 95th (ft)	216		214	199	#347	102				
Internal Link Dist (ft)	717			272	970					
Turn Bay Length (ft)										
Base Capacity (vph)	874		929	1381	280	1103				
Starvation Cap Reductn	0		183	693	0	0				
Spillback Cap Reductn	0		0	0	0	0				
Storage Cap Reductn	0		0	0	0	0				
Reduced v/c Ratio	0.59		0.57	0.58	0.94	0.23				

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 86 (72%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 25.4		Intersection LOS: C	
Intersection Capacity Utilization 74.1%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

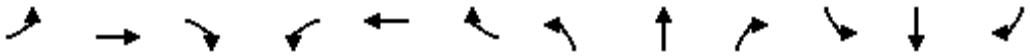
Splits and Phases: 17: Mall Drive 3 & Mall Ring Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	1306	81	323	1675	33	0	0	533	26	8	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		200	300		100	0		0	65		0
Storage Lanes	1		1	2		1	0		2	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.891	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1660	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1660	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			85			35			417		21	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1065			834			318			371	
Travel Time (s)		16.1			12.6			7.2			8.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	37	1375	85	340	1763	35	0	0	561	27	8	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	37	1375	85	340	1763	35	0	0	561	27	29	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1			1	1	1	
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45			45	45	45	
Trailing Detector (ft)	-6	284	-6	-6	284	-6			-6	-6	-6	
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			-6	-6	-6	
Detector 1 Size(ft)	51	51	51	51	51	51			51	51	51	
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA	Perm	Prot	NA	custom			Over	Perm	NA	
Protected Phases	1	7		5	4	2			5		2	
Permitted Phases			7			4				2		
Detector Phase	1	7	7	5	4	2			5	2	2	

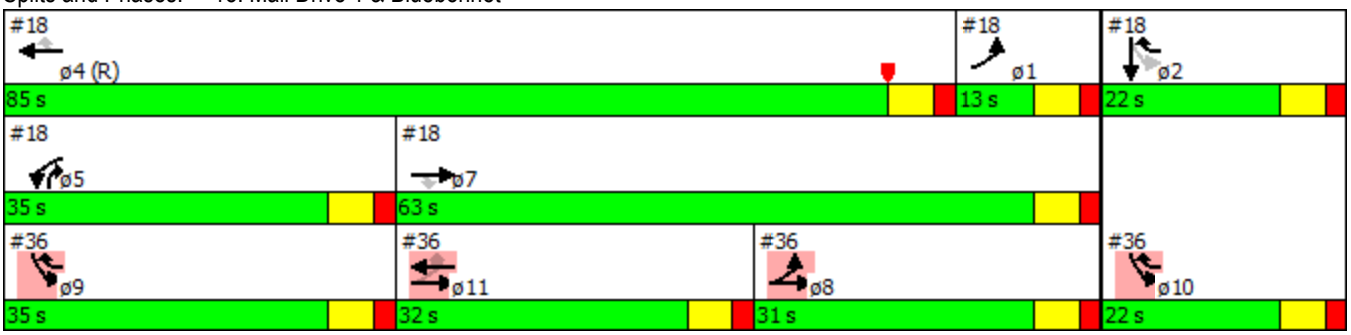
Lane Group	ø8	ø9	ø10	ø11
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	8	9	10	11
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	14.0	4.0	14.0	4.0			4.0	4.0	4.0	
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	10.0			10.0	10.0	10.0	
Total Split (s)	13.0	63.0	63.0	35.0	85.0	22.0			35.0	22.0	22.0	
Total Split (%)	10.8%	52.5%	52.5%	29.2%	70.8%	18.3%			29.2%	18.3%	18.3%	
Maximum Green (s)	7.0	57.0	57.0	29.0	79.0	16.0			29.0	16.0	16.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0			6.0	6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	4.3	4.3	2.5	4.3	2.0			2.5	2.0	2.0	
Minimum Gap (s)	0.2	2.2	2.2	0.2	2.2	0.2			0.2	0.2	0.2	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	34.0	0.0			0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	15.0	0.0			0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Min	None			None	None	None	
Act Effct Green (s)	24.4	68.0	68.0	18.1	66.4	90.7			18.1	15.8	15.8	
Actuated g/C Ratio	0.20	0.57	0.57	0.15	0.55	0.76			0.15	0.13	0.13	
v/c Ratio	0.10	0.48	0.09	0.66	0.63	0.03			0.72	0.12	0.12	
Control Delay	25.7	9.9	1.1	47.4	14.8	0.0			26.2	44.8	22.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Delay	25.7	9.9	1.1	47.4	14.8	0.0			26.2	44.8	22.4	
LOS	C	A	A	D	B	A			C	D	C	
Approach Delay		9.8			19.7						33.2	
Approach LOS		A			B						C	
Queue Length 50th (ft)	8	111	0	116	419	0			79	19	6	
Queue Length 95th (ft)	m20	167	m3	m142	488	m0			135	45	33	
Internal Link Dist (ft)		985			754			238			291	
Turn Bay Length (ft)	140		200	300		100				65		
Base Capacity (vph)	367	2885	934	829	3642	1196			989	259	261	
Starvation Cap Reductn	0	0	0	0	0	0			18	0	0	
Spillback Cap Reductn	0	0	0	0	0	0			0	0	0	
Storage Cap Reductn	0	0	0	0	0	0			0	0	0	
Reduced v/c Ratio	0.10	0.48	0.09	0.41	0.48	0.03			0.58	0.10	0.11	

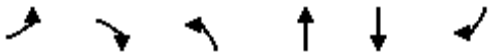
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 91 (76%), Referenced to phase 4:WBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 17.3		Intersection LOS: B	
Intersection Capacity Utilization 62.2%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 18: Mall Drive 1 & Bluebonnet



Lane Group	ø8	ø9	ø10	ø11
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	14.0
Minimum Split (s)	22.0	10.0	22.0	20.0
Total Split (s)	31.0	35.0	22.0	32.0
Total Split (%)	26%	29%	18%	27%
Maximum Green (s)	25.0	29.0	16.0	26.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	4.3
Minimum Gap (s)	3.0	3.0	3.0	2.2
Time Before Reduce (s)	0.0	0.0	0.0	34.0
Time To Reduce (s)	0.0	0.0	0.0	15.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Lane Configurations												
Volume (vph)	326	211	285	276	261	126						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Frt		0.850				0.850						
Flt Protected	0.950		0.950									
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583						
Flt Permitted	0.950		0.411									
Satd. Flow (perm)	1770	1583	766	1863	1863	1583						
Right Turn on Red		Yes				Yes						
Satd. Flow (RTOR)		213				137						
Link Speed (mph)	30			30	30							
Link Distance (ft)	403			1050	819							
Travel Time (s)	9.2			23.9	18.6							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	354	229	310	300	284	137						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	354	229	310	300	284	137						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Right	Left	Left	Left	Right						
Median Width(ft)	36			12	0							
Link Offset(ft)	0			0	0							
Crosswalk Width(ft)	16			16	16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15	9	15			9						
Number of Detectors	1	1	1	2	2	1						
Detector Template	Left	Right	Left	Thru	Thru	Right						
Leading Detector (ft)	20	20	20	100	100	20						
Trailing Detector (ft)	0	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0	0						
Detector 1 Size(ft)	20	20	20	6	6	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)				94	94							
Detector 2 Size(ft)				6	6							
Detector 2 Type				Cl+Ex	Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)				0.0	0.0							
Turn Type	Prot	Free	D.P+P	NA	NA	pm+ov						
Protected Phases	12 13		11	11 14	14	12 13	1	2	3	5	6	8
Permitted Phases		Free	14			14						
Detector Phase	12 13		11	11 14	14	12 13						
Switch Phase												
Minimum Initial (s)			4.0		3.0		3.0	3.0	3.0	21.0	3.0	3.0
Minimum Split (s)			10.0		9.0		11.0	9.0	9.0	27.0	11.0	9.0

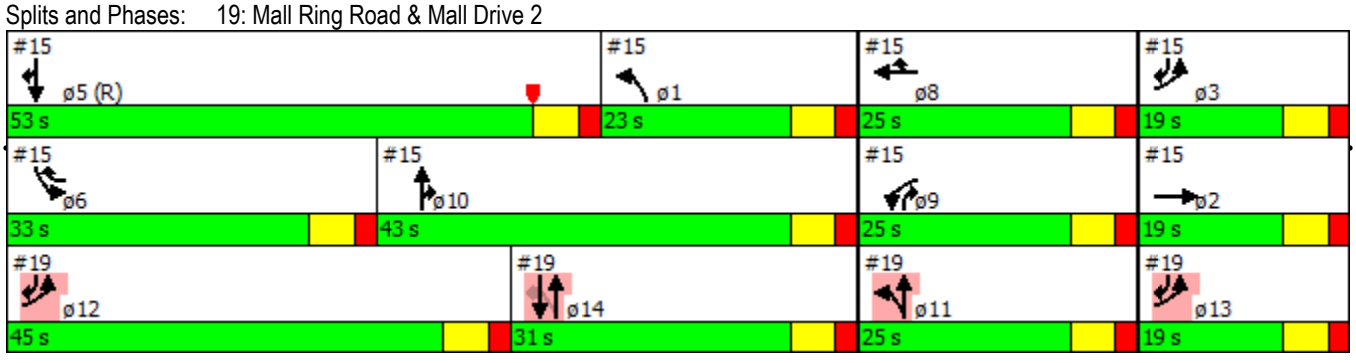
Lane Group	ø9	ø10	ø12	ø13
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	9	10	12	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	21.0	4.0	4.0
Minimum Split (s)	9.0	27.0	22.0	10.0

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Total Split (s)			25.0		31.0		23.0	19.0	19.0	53.0	33.0	25.0
Total Split (%)			20.8%		25.8%		19%	16%	16%	44%	28%	21%
Maximum Green (s)			19.0		25.0		17.0	13.0	13.0	47.0	27.0	19.0
Yellow Time (s)			4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)			2.0		2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0		0.0							
Total Lost Time (s)			6.0		6.0							
Lead/Lag					Lag		Lag			Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0		1.0		3.0	1.0	1.5	4.3	1.0	1.0
Minimum Gap (s)			3.0		0.2		0.2	0.2	0.2	2.2	0.2	0.2
Time Before Reduce (s)			0.0		0.0		0.0	0.0	0.0	28.0	0.0	0.0
Time To Reduce (s)			0.0		0.0		0.0	0.0	0.0	15.0	0.0	0.0
Recall Mode			None		None		None	None	None	C-Min	None	None
Act Effct Green (s)	53.6	120.0	48.4	54.4	34.0	93.5						
Actuated g/C Ratio	0.45	1.00	0.40	0.45	0.28	0.78						
v/c Ratio	0.45	0.14	0.72	0.36	0.54	0.11						
Control Delay	27.8	0.2	47.0	26.4	24.7	0.2						
Queue Delay	0.2	0.0	0.0	0.0	0.0	0.0						
Total Delay	28.0	0.2	47.0	26.4	24.7	0.2						
LOS	C	A	D	C	C	A						
Approach Delay	17.1			36.9	16.7							
Approach LOS	B			D	B							
Queue Length 50th (ft)	138	0	166	156	88	0						
Queue Length 95th (ft)	140	0	304	288	307	0						
Internal Link Dist (ft)	323			970	739							
Turn Bay Length (ft)												
Base Capacity (vph)	945	1583	501	905	531	1250						
Starvation Cap Reductn	134	0	0	0	0	0						
Spillback Cap Reductn	0	0	0	0	0	0						
Storage Cap Reductn	0	0	0	0	0	0						
Reduced v/c Ratio	0.44	0.14	0.62	0.33	0.53	0.11						

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 69 (58%), Referenced to phase 5:SBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 24.5 Intersection LOS: C
Intersection Capacity Utilization 62.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 19: Mall Ring Road & Mall Drive 2



Lane Group	ø9	ø10	ø12	ø13
Total Split (s)	25.0	43.0	45.0	19.0
Total Split (%)	21%	36%	38%	16%
Maximum Green (s)	19.0	37.0	39.0	13.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?			Yes	
Vehicle Extension (s)	1.0	4.3	3.0	3.0
Minimum Gap (s)	0.2	0.2	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	107	36	621	0	0	0	0	1690	175	263	1410	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		0	0		0	400		0	300		0
Storage Lanes	1		1	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950	0.976								0.950		
Satd. Flow (prot)	1681	1727	1583	0	0	0	0	6408	1583	1770	3539	0
Flt Permitted	0.950	0.976								0.950		
Satd. Flow (perm)	1681	1727	1583	0	0	0	0	6408	1583	1770	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			462						184			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1072			1024			834			410	
Travel Time (s)		24.4			23.3			12.6			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	113	38	654	0	0	0	0	1779	184	277	1484	0
Shared Lane Traffic (%)	34%											
Lane Group Flow (vph)	75	76	654	0	0	0	0	1779	184	277	1484	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			25	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					2	1	1	2	
Detector Template												
Leading Detector (ft)	45	45	45					290	45	45	290	
Trailing Detector (ft)	-6	-6	-6					284	-6	-6	284	
Detector 1 Position(ft)	-6	-6	-6					-6	-6	-6	-6	
Detector 1 Size(ft)	51	51	51					51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA	Free					NA	Perm	Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						2			
Detector Phase	4	4						2	2	1	6	

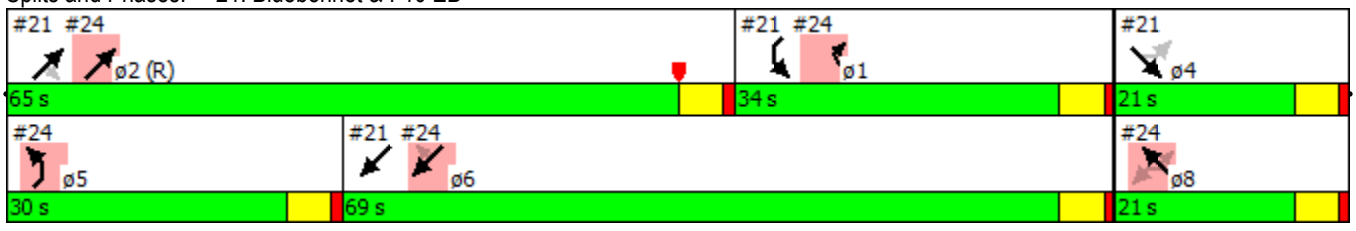
Lane Group	ø5	ø8
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	5	8
Permitted Phases		
Detector Phase		

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)	3.0	3.0						10.0	10.0	3.0	10.0	
Minimum Split (s)	20.0	20.0						20.0	20.0	8.0	20.0	
Total Split (s)	21.0	21.0						65.0	65.0	34.0	69.0	
Total Split (%)	17.5%	17.5%						54.2%	54.2%	28.3%	57.5%	
Maximum Green (s)	16.0	16.0						60.0	60.0	29.0	64.0	
Yellow Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0	2.0	2.0	6.0	
Recall Mode	None	None						C-Max	C-Max	None	Max	
Act Effct Green (s)	10.3	10.3	120.0					65.7	65.7	29.0	64.0	
Actuated g/C Ratio	0.09	0.09	1.00					0.55	0.55	0.24	0.53	
v/c Ratio	0.52	0.52	0.41					0.51	0.19	0.65	0.79	
Control Delay	64.7	63.9	0.8					11.2	2.1	27.7	9.1	
Queue Delay	0.0	0.0	0.0					0.0	0.0	0.6	0.9	
Total Delay	64.7	63.9	0.8					11.2	2.1	28.4	10.0	
LOS	E	E	A					B	A	C	B	
Approach Delay		12.7						10.3			12.9	
Approach LOS		B						B			B	
Queue Length 50th (ft)	60	60	0					160	8	162	63	
Queue Length 95th (ft)	109	110	0					234	33	m204	127	
Internal Link Dist (ft)		992			944			754			330	
Turn Bay Length (ft)	375									300		
Base Capacity (vph)	224	230	1583					3510	950	427	1887	
Starvation Cap Reductn	0	0	0					0	0	25	172	
Spillback Cap Reductn	0	0	0					0	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.33	0.33	0.41					0.51	0.19	0.69	0.87	

Intersection Summary

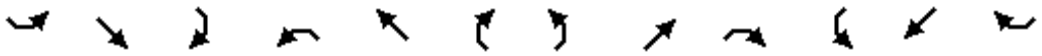
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 9 (8%), Referenced to phase 2:NET, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 11.8 Intersection LOS: B
Intersection Capacity Utilization 75.1% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: Bluebonnet & I-10 EB



Lane Group	ø5	ø8
Switch Phase		
Minimum Initial (s)	3.0	3.0
Minimum Split (s)	8.0	20.0
Total Split (s)	30.0	21.0
Total Split (%)	25%	18%
Maximum Green (s)	25.0	16.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?		
Vehicle Extension (s)	3.5	2.0
Recall Mode	Max	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary



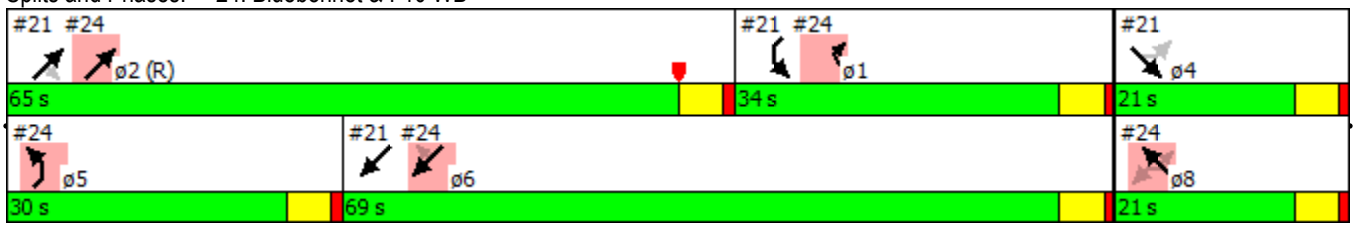
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	0	0	148	3	305	569	1228	0	0	1525	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		525	300		0	0		575
Storage Lanes	0		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt						0.850						0.850
Flt Protected				0.950	0.954		0.950					
Satd. Flow (prot)	0	0	0	1681	1688	1583	3433	3539	0	0	3539	1583
Flt Permitted				0.950	0.954		0.950					
Satd. Flow (perm)	0	0	0	1681	1688	1583	3433	3539	0	0	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						64						195
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		894			1008			410			866	
Travel Time (s)		20.3			22.9			6.2			13.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	156	3	321	599	1293	0	0	1605	195
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	0	0	80	79	321	599	1293	0	0	1605	195
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			40			50	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			2	1
Detector Template												
Leading Detector (ft)				45	45	45	45	290			290	45
Trailing Detector (ft)				-6	-6	-6	-6	284			284	-6
Detector 1 Position(ft)				-6	-6	-6	-6	-6			-6	-6
Detector 1 Size(ft)				51	51	51	51	51			51	51
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call			Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type				Perm	NA	custom	Prot	NA			NA	Perm
Protected Phases					8	1	5	2			6	
Permitted Phases				8		8						6
Detector Phase				8	8	1	5	2			6	6

Lane Group	ø4
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)				3.0	3.0	3.0	3.0	10.0			10.0	10.0
Minimum Split (s)				20.0	20.0	8.0	8.0	20.0			20.0	20.0
Total Split (s)				21.0	21.0	34.0	30.0	65.0			69.0	69.0
Total Split (%)				17.5%	17.5%	28.3%	25.0%	54.2%			57.5%	57.5%
Maximum Green (s)				16.0	16.0	29.0	25.0	60.0			64.0	64.0
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
All-Red Time (s)				1.0	1.0	1.0	1.0	1.0			1.0	1.0
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)				5.0	5.0	5.0	5.0	5.0			5.0	5.0
Lead/Lag						Lag	Lead	Lead			Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0	2.0	3.5	2.0			6.0	6.0
Recall Mode				None	None	None	Max	C-Max			Max	Max
Act Effct Green (s)				10.3	10.3	44.3	30.7	65.7			64.0	64.0
Actuated g/C Ratio				0.09	0.09	0.37	0.26	0.55			0.53	0.53
v/c Ratio				0.56	0.55	0.51	0.68	0.67			0.85	0.21
Control Delay				66.6	66.0	26.0	31.5	5.2			20.6	1.0
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.1	0.0
Total Delay				66.6	66.0	26.0	31.5	5.2			20.7	1.0
LOS				E	E	C	C	A			C	A
Approach Delay					39.3			13.5			18.6	
Approach LOS					D			B			B	
Queue Length 50th (ft)				63	63	153	86	61			678	17
Queue Length 95th (ft)				114	113	228	185	93			396	2
Internal Link Dist (ft)		814			928			330			786	
Turn Bay Length (ft)						525	300					575
Base Capacity (vph)				224	225	624	879	1938			1887	935
Starvation Cap Reductn				0	0	0	0	0			18	0
Spillback Cap Reductn				0	0	0	0	0			9	0
Storage Cap Reductn				0	0	0	0	0			0	0
Reduced v/c Ratio				0.36	0.35	0.51	0.68	0.67			0.86	0.21

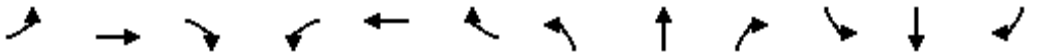
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 9 (8%), Referenced to phase 2:NET, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 18.7		Intersection LOS: B	
Intersection Capacity Utilization 75.1%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 24: Bluebonnet & I-10 WB



Lane Group	ø4
Switch Phase	
Minimum Initial (s)	3.0
Minimum Split (s)	20.0
Total Split (s)	21.0
Total Split (%)	18%
Maximum Green (s)	16.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary



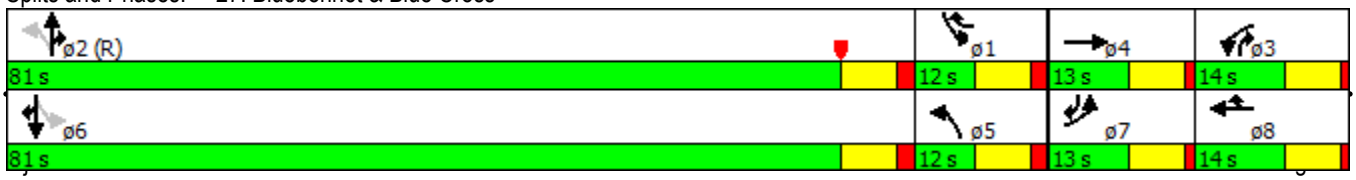
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	1	29	133	4	8	33	1403	97	11	1548	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		200	300		175	175		175
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.855			0.950	0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3026	0	3433	1681	1504	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.090			0.121		
Satd. Flow (perm)	1770	3026	0	3433	1681	1504	168	3539	1583	225	3539	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		100										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		475			1072			866			1049	
Travel Time (s)		10.8			24.4			13.1			15.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	42	1	31	140	4	8	35	1477	102	12	1629	9
Shared Lane Traffic (%)						29%						
Lane Group Flow (vph)	42	32	0	140	6	6	35	1477	102	12	1629	9
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		60			60			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4		3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases							2			6		
Detector Phase	7	4		3	8	8 1	5	2	2 3	1	6	6 7

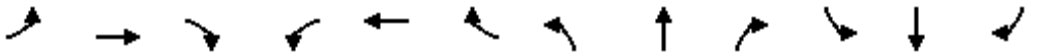
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	5.0		5.0	3.0		3.0	20.0		5.0	20.0	
Minimum Split (s)	8.9	10.9		10.9	8.9		9.6	26.6		11.6	26.6	
Total Split (s)	13.0	13.0		14.0	14.0		12.0	81.0		12.0	81.0	
Total Split (%)	10.8%	10.8%		11.7%	11.7%		10.0%	67.5%		10.0%	67.5%	
Maximum Green (s)	7.1	7.1		8.1	8.1		5.4	74.4		5.4	74.4	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	0.9	0.9		0.9	0.9		1.6	1.6		1.6	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.9	5.9		5.9	5.9		6.6	6.6		6.6	6.6	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		2.5	1.5		1.5	5.0		1.5	5.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	9.8	5.0		9.4	6.4	12.2	90.2	86.6	104.6	89.0	84.7	99.1
Actuated g/C Ratio	0.08	0.04		0.08	0.05	0.10	0.75	0.72	0.87	0.74	0.71	0.83
v/c Ratio	0.29	0.14		0.52	0.07	0.04	0.19	0.58	0.07	0.05	0.65	0.01
Control Delay	57.3	1.4		60.0	54.7	33.0	3.4	5.4	1.7	7.2	15.9	2.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.3	1.4		60.0	54.7	33.0	3.4	5.4	1.7	7.2	15.9	2.7
LOS	E	A		E	D	C	A	A	A	A	B	A
Approach Delay		33.1			58.8			5.1			15.8	
Approach LOS		C			E			A			B	
Queue Length 50th (ft)	28	0		54	5	3	3	65	6	3	584	2
Queue Length 95th (ft)	70	0		88	20	14	m3	137	m14	m5	619	m1
Internal Link Dist (ft)		395			992			786			969	
Turn Bay Length (ft)	75			200		200	300		175	175		175
Base Capacity (vph)	153	273		275	113	176	199	2563	1368	237	2499	1333
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	22	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.12		0.51	0.05	0.03	0.18	0.58	0.07	0.05	0.66	0.01

Intersection Summary

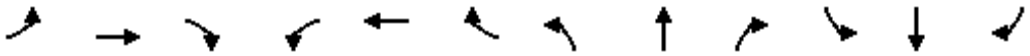
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 35 (29%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 13.1 Intersection LOS: B
Intersection Capacity Utilization 63.7% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 27: Bluebonnet & Blue Cross





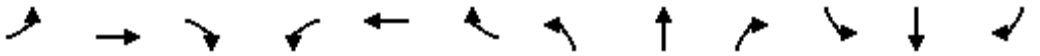
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	0	23	17	0	2	14	1433	4	0	1527	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		130	150		185
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.902			0.986				0.850			0.850
Flt Protected		0.987			0.957		0.950					
Satd. Flow (prot)	0	1658	0	0	1758	0	1770	3539	1583	1863	3539	1583
Flt Permitted		0.901			0.905		0.143					
Satd. Flow (perm)	0	1514	0	0	1662	0	266	3539	1583	1863	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			27				27			27
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1129			1330			1049			1811	
Travel Time (s)		25.7			30.2			15.9			27.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	9	0	24	18	0	2	15	1508	4	0	1607	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	33	0	0	20	0	15	1508	4	0	1607	4
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



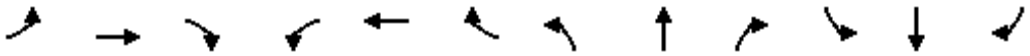
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	11.0	11.0		11.0	11.0		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.0	24.0		24.0	24.0		84.0	84.0	84.0	84.0	84.0	84.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		6.3			6.3		108.6	108.6	108.6		108.6	108.6
Actuated g/C Ratio		0.05			0.05		0.90	0.90	0.90		0.90	0.90
v/c Ratio		0.31			0.18		0.06	0.47	0.00		0.50	0.00
Control Delay		31.1			17.7		0.7	0.7	0.0		3.0	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0		0.0	0.0
Total Delay		31.1			17.7		0.7	0.7	0.0		3.0	0.0
LOS		C			B		A	A	A		A	A
Approach Delay		31.1			17.7			0.7			2.9	
Approach LOS		C			B			A			A	
Queue Length 50th (ft)		5			0		0	20	0		124	0
Queue Length 95th (ft)		38			20		m0	5	m0		258	m0
Internal Link Dist (ft)		1049			1250			969			1731	
Turn Bay Length (ft)							150		130			185
Base Capacity (vph)		324			354		240	3202	1434		3202	1434
Starvation Cap Reductn		0			0		0	0	0		0	0
Spillback Cap Reductn		0			0		0	0	0		0	0
Storage Cap Reductn		0			0		0	0	0		0	0
Reduced v/c Ratio		0.10			0.06		0.06	0.47	0.00		0.50	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 72 (60%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.50			
Intersection Signal Delay: 2.2		Intersection LOS: A	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 30: Bluebonnet & Gail



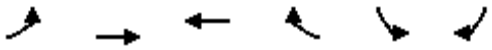
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	1	24	15	0	15	25	1387	32	21	1492	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.898			0.932				0.850			0.850
Flt Protected		0.990			0.976		0.950			0.950		
Satd. Flow (prot)	0	1656	0	0	1694	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.918			0.825		0.149			0.170		
Satd. Flow (perm)	0	1536	0	0	1432	0	278	3539	1583	317	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			27				31			29
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1794			2049			1811			2409	
Travel Time (s)		40.8			46.6			27.4			36.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	7	1	25	16	0	16	26	1460	34	22	1571	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	33	0	0	32	0	26	1460	34	22	1571	12
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	9.2	9.2		9.2	9.2		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	23.8	23.8		23.8	23.8		84.0	84.0	84.0	84.0	84.0	84.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.2	1.2		1.2	1.2		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.2			6.2		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		6.4			6.4		108.4	108.4	108.4	108.4	108.4	108.4
Actuated g/C Ratio		0.05			0.05		0.90	0.90	0.90	0.90	0.90	0.90
v/c Ratio		0.31			0.32		0.10	0.46	0.02	0.08	0.49	0.01
Control Delay		33.0			30.8		0.9	0.8	0.0	2.3	2.5	0.2
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		33.0			30.8		0.9	0.8	0.0	2.3	2.5	0.2
LOS		C			C		A	A	A	A	A	A
Approach Delay		33.0			30.8			0.8			2.5	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		6			4		1	16	0	2	123	0
Queue Length 95th (ft)		39			36		m0	1	m0	7	186	1
Internal Link Dist (ft)		1714			1969			1731			2329	
Turn Bay Length (ft)							150		150	150		150
Base Capacity (vph)		324			305		251	3197	1433	286	3197	1433
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.10			0.10		0.10	0.46	0.02	0.08	0.49	0.01

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 6 (5%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 2.3		Intersection LOS: A	
Intersection Capacity Utilization 68.5%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 33: Bluebonnet & Oliphant



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Lane Configurations												
Volume (vph)	190	412	223	343	248	164						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.95						
Frt				0.850	0.940							
Flt Protected	0.950				0.971							
Satd. Flow (prot)	1770	1863	1863	1583	3298	0						
Flt Permitted	0.398				0.971							
Satd. Flow (perm)	741	1863	1863	1583	3298	0						
Right Turn on Red				Yes		Yes						
Satd. Flow (RTOR)				373	172							
Link Speed (mph)		30	30		30							
Link Distance (ft)		819	802		318							
Travel Time (s)		18.6	18.2		7.2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	207	448	242	373	270	178						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	207	448	242	373	448	0						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Right	Left	Right						
Median Width(ft)		12	0		36							
Link Offset(ft)		0	0		0							
Crosswalk Width(ft)		16	16		16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15			9	15	9						
Number of Detectors	1	2	2	1	1							
Detector Template	Left	Thru	Thru	Right	Left							
Leading Detector (ft)	20	100	100	20	20							
Trailing Detector (ft)	0	0	0	0	0							
Detector 1 Position(ft)	0	0	0	0	0							
Detector 1 Size(ft)	20	6	6	20	20							
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex							
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0							
Detector 2 Position(ft)		94	94									
Detector 2 Size(ft)		6	6									
Detector 2 Type		Cl+Ex	Cl+Ex									
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0									
Turn Type	D.P+P	NA	NA	pm+ov	Prot							
Protected Phases	8	8 11	11	9 10	9 10		1	2	4	5	7	9
Permitted Phases	11			11								
Detector Phase	8	8 11	11	9 10	9 10							
Switch Phase												
Minimum Initial (s)	4.0		14.0				4.0	4.0	14.0	4.0	14.0	4.0
Minimum Split (s)	22.0		20.0				10.0	10.0	20.0	10.0	20.0	10.0

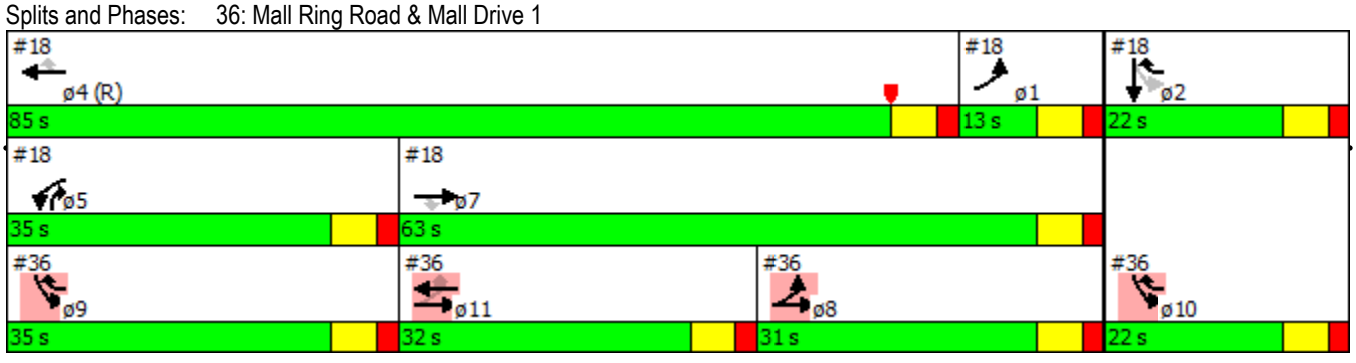
Lane Group	ø10
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	10
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	22.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Total Split (s)	31.0		32.0				13.0	22.0	85.0	35.0	63.0	35.0
Total Split (%)	25.8%		26.7%				11%	18%	71%	29%	53%	29%
Maximum Green (s)	25.0		26.0				7.0	16.0	79.0	29.0	57.0	29.0
Yellow Time (s)	4.0		4.0				4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0				2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0									
Total Lost Time (s)	6.0		6.0									
Lead/Lag			Lag				Lag		Lead	Lead	Lag	Lead
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0		4.3				2.5	2.0	4.3	2.5	4.3	3.0
Minimum Gap (s)	3.0		2.2				0.2	0.2	2.2	0.2	2.2	3.0
Time Before Reduce (s)	0.0		34.0				0.0	0.0	34.0	0.0	0.0	0.0
Time To Reduce (s)	0.0		15.0				0.0	0.0	15.0	0.0	0.0	0.0
Recall Mode	None		None				None	None	C-Min	None	None	None
Act Effct Green (s)	73.3	79.3	25.2	59.9	28.7							
Actuated g/C Ratio	0.61	0.66	0.21	0.50	0.24							
v/c Ratio	0.24	0.36	0.62	0.38	0.49							
Control Delay	5.8	5.5	48.9	2.1	61.2							
Queue Delay	0.0	0.0	0.0	0.0	0.1							
Total Delay	5.8	5.5	48.9	2.1	61.3							
LOS	A	A	D	A	E							
Approach Delay		5.6	20.5		61.3							
Approach LOS		A	C		E							
Queue Length 50th (ft)	53	117	173	0	139							
Queue Length 95th (ft)	9	20	228	32	172							
Internal Link Dist (ft)		739	722		238							
Turn Bay Length (ft)												
Base Capacity (vph)	865	1215	443	973	1479							
Starvation Cap Reductn	0	0	0	0	313							
Spillback Cap Reductn	0	0	0	0	0							
Storage Cap Reductn	0	0	0	0	0							
Reduced v/c Ratio	0.24	0.37	0.55	0.38	0.38							

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 91 (76%), Referenced to phase 4:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 25.5 Intersection LOS: C
Intersection Capacity Utilization 49.5% ICU Level of Service A
Analysis Period (min) 15

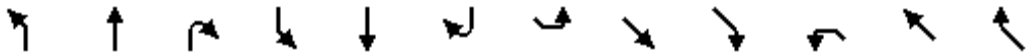
Splits and Phases: 36: Mall Ring Road & Mall Drive 1



Lane Group	ø10
Total Split (s)	22.0
Total Split (%)	18%
Maximum Green (s)	16.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Minimum Gap (s)	3.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

M.32 2037 BUILD AM – ESSEN LANE



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	306	777	45	264	585	491	589	546	38	82	1063	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	800		0	300		0	150		0
Storage Lanes	1		0	1		1	2		0	1		0
Taper Length (ft)	150			25			200			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Frt		0.992				0.850		0.990			0.969	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3511	0	1770	3539	1583	3433	3504	0	1770	3429	0
Flt Permitted	0.125			0.120			0.950			0.950		
Satd. Flow (perm)	233	3511	0	224	3539	1583	3433	3504	0	1770	3429	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3				238		5			23	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1877			1475			2128			1788	
Travel Time (s)		28.4			22.3			32.2			27.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	322	818	47	278	616	517	620	575	40	86	1119	295
Shared Lane Traffic (%)												
Lane Group Flow (vph)	322	865	0	278	616	517	620	615	0	86	1414	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	0	1	1		1	1	
Detector Template												
Leading Detector (ft)	45	162		45	162	0	45	45		45	45	
Trailing Detector (ft)	0	156		0	156	0	0	0		0	0	
Detector 1 Position(ft)	0	-6		0	-6	0	0	0		0	0	
Detector 1 Size(ft)	45	51		45	51	50	45	45		45	45	
Detector 1 Type	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2		2						
Detector Phase	1	6		5	2	2	3	8		7	4	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	5.0	10.0		3.0	10.0	
Minimum Split (s)	8.8	15.8		8.8	15.8	15.8	11.5	16.5		9.5	16.5	
Total Split (s)	27.0	43.0		23.0	39.0	39.0	31.0	72.1		21.9	63.0	
Total Split (%)	16.9%	26.9%		14.4%	24.4%	24.4%	19.4%	45.1%		13.7%	39.4%	
Maximum Green (s)	21.2	37.2		17.2	33.2	33.2	24.5	65.6		15.4	56.5	
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8	5.5	5.5		5.5	5.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8		5.8	5.8	5.8	6.5	6.5		6.5	6.5	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	6.0		2.0	6.0	6.0	2.0	6.0		2.0	6.0	
Minimum Gap (s)	0.2	4.0		0.2	4.0	4.0	0.2	4.0		0.2	4.0	
Time Before Reduce (s)	0.0	20.0		0.0	20.0	20.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	
Act Effct Green (s)	58.4	37.2		50.4	33.2	33.2	24.5	69.2		11.8	56.5	
Actuated g/C Ratio	0.36	0.23		0.32	0.21	0.21	0.15	0.43		0.07	0.35	
v/c Ratio	1.12	1.06		1.18	0.84	1.00	1.18	0.41		0.66	1.15	
Control Delay	129.7	105.0		156.0	72.1	72.8	155.8	32.4		95.2	124.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	129.7	105.0		156.0	72.1	72.8	155.8	32.4		95.2	124.0	
LOS	F	F		F	E	E	F	C		F	F	
Approach Delay		111.7			88.9			94.3			122.4	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~326	~518		~295	329	333	~398	230		89	~907	
Queue Length 95th (ft)	#532	#657		#491	405	#588	#525	294		149	#1048	
Internal Link Dist (ft)		1797			1395			2048			1708	
Turn Bay Length (ft)	250			800			300			150		
Base Capacity (vph)	288	818		236	734	517	525	1518		170	1225	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	1.12	1.06		1.18	0.84	1.00	1.18	0.41		0.51	1.15	

Intersection Summary

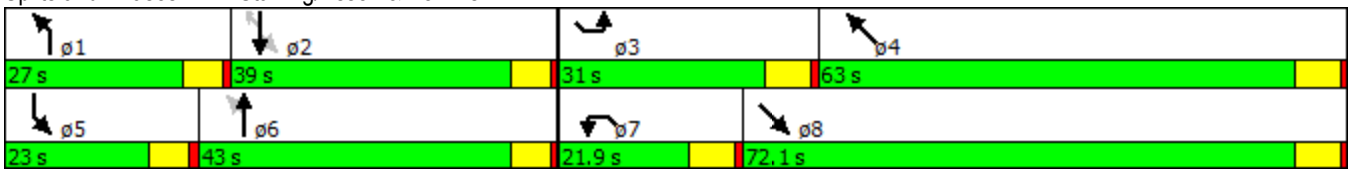
Area Type: Other
Cycle Length: 160
Actuated Cycle Length: 160
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.18
Intersection Signal Delay: 104.6 Intersection LOS: F
Intersection Capacity Utilization 113.2% ICU Level of Service H
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

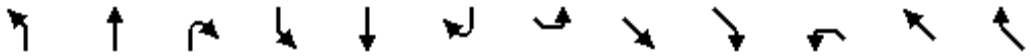
Queue shown is maximum after two cycles.

Splits and Phases: 2: Starring/Essen & Perkins



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	0	1527	293	137	1671	0	57	0	1633	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		0	0		800	0		0
Storage Lanes	1		0	2		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.86	0.86	0.97	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt		0.976							0.850			
Flt Protected				0.950			0.950	0.950				
Satd. Flow (prot)	0	6254	0	3433	3539	0	1681	1681	1583	0	0	0
Flt Permitted				0.950			0.950	0.950				
Satd. Flow (perm)	0	6254	0	3433	3539	0	1681	1681	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		75							245			
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		721			409			1012			1106	
Travel Time (s)		10.9			6.2			23.0			25.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1607	308	144	1759	0	60	0	1719	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	0	1915	0	144	1759	0	30	30	1719	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2		1	1	0			
Detector Template							Left					
Leading Detector (ft)		162		45	162		20	45	0			
Trailing Detector (ft)		156		0	156		0	0	0			
Detector 1 Position(ft)		-6		0	-6		0	0	0			
Detector 1 Size(ft)		51		45	51		20	45	20			
Detector 1 Type		Call		Cl+Ex	Call		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Queue (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Delay (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA		Prot	NA		Perm	NA	Free			
Protected Phases		6		5	5 6			8				
Permitted Phases							8		Free			
Detector Phase		6		5	5 6		8	8				

Lane Group	ø1	ø2	ø4
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	1	2	4
Permitted Phases			
Detector Phase			



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)		10.0		3.0			3.0	3.0				
Minimum Split (s)		16.0		9.0			9.0	9.0				
Total Split (s)		80.0		21.0			19.0	19.0				
Total Split (%)		66.7%		17.5%			15.8%	15.8%				
Maximum Green (s)		74.0		15.0			13.0	13.0				
Yellow Time (s)		5.0		5.0			5.0	5.0				
All-Red Time (s)		1.0		1.0			1.0	1.0				
Lost Time Adjust (s)		0.0		0.0			0.0	0.0				
Total Lost Time (s)		6.0		6.0			6.0	6.0				
Lead/Lag		Lag					Lead	Lead				
Lead-Lag Optimize?		Yes					Yes	Yes				
Vehicle Extension (s)		4.0		2.5			2.0	2.0				
Minimum Gap (s)		2.0		0.2			0.2	0.2				
Time Before Reduce (s)		10.0		0.0			0.0	0.0				
Time To Reduce (s)		20.0		0.0			0.0	0.0				
Recall Mode		None		C-Max			Min	Min				
Act Effct Green (s)		68.6		26.7	101.3		6.7	6.7	120.0			
Actuated g/C Ratio		0.57		0.22	0.84		0.06	0.06	1.00			
v/c Ratio		0.53		0.19	0.59		0.32	0.32	1.09			
Control Delay		6.5		31.7	10.5		62.9	62.9	55.2			
Queue Delay		0.0		0.0	2.0		0.0	0.0	6.1			
Total Delay		6.6		31.7	12.5		62.9	62.9	61.3			
LOS		A		C	B		E	E	E			
Approach Delay		6.6			13.9			61.4				
Approach LOS		A			B			E				
Queue Length 50th (ft)		65		47	205		24	24	~219			
Queue Length 95th (ft)		0		73	403		56	56	#485			
Internal Link Dist (ft)		641			329			932			1026	
Turn Bay Length (ft)									800			
Base Capacity (vph)		3975		763	2969		182	182	1583			
Starvation Cap Reductn		0		0	1008		0	0	0			
Spillback Cap Reductn		310		0	19		0	0	96			
Storage Cap Reductn		0		0	0		0	0	0			
Reduced v/c Ratio		0.52		0.19	0.90		0.16	0.16	1.16			

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 34 (28%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.09			
Intersection Signal Delay: 26.5		Intersection LOS: C	
Intersection Capacity Utilization 63.1%		ICU Level of Service B	
Analysis Period (min) 15			

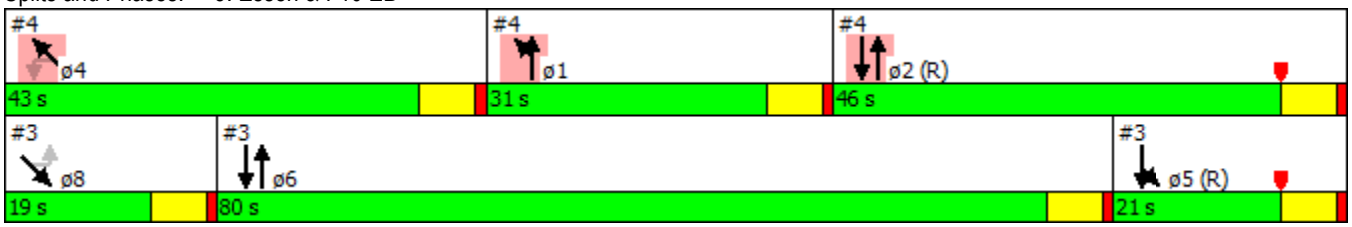
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

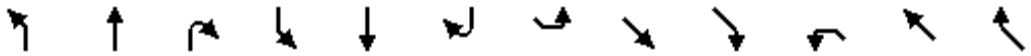
Lane Group	ø1	ø2	ø4
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	31.0	46.0	43.0
Total Split (%)	26%	38%	36%
Maximum Green (s)	25.0	40.0	37.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes
Vehicle Extension (s)	2.5	4.0	4.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	None	C-Max	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Essen & I-10 EB





Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	491	1093	0	0	1276	49	0	0	0	532	0	821
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	550		200	0		0	750		0
Storage Lanes	2		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.86	0.86	1.00	1.00	1.00	0.95	0.95	1.00
Frt					0.994							0.850
Flt Protected	0.950									0.950	0.950	
Satd. Flow (prot)	3433	3539	0	0	6369	0	0	0	0	1681	1681	1583
Flt Permitted	0.950									0.950	0.950	
Satd. Flow (perm)	3433	3539	0	0	6369	0	0	0	0	1681	1681	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7							429
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		409			805			936			1390	
Travel Time (s)		6.2			12.2			21.3			31.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	517	1151	0	0	1343	52	0	0	0	560	0	864
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	517	1151	0	0	1395	0	0	0	0	280	280	864
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			20			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2					1	1	0
Detector Template										Left		
Leading Detector (ft)	45	162			162					20	45	0
Trailing Detector (ft)	0	156			156					0	0	0
Detector 1 Position(ft)	0	-6			-6					0	0	0
Detector 1 Size(ft)	45	51			51					20	45	20
Detector 1 Type	Cl+Ex	Call			Call					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA			NA					Perm	NA	Free
Protected Phases	1	1 2			2						4	
Permitted Phases										4		Free
Detector Phase	1	1 2			2					4	4	

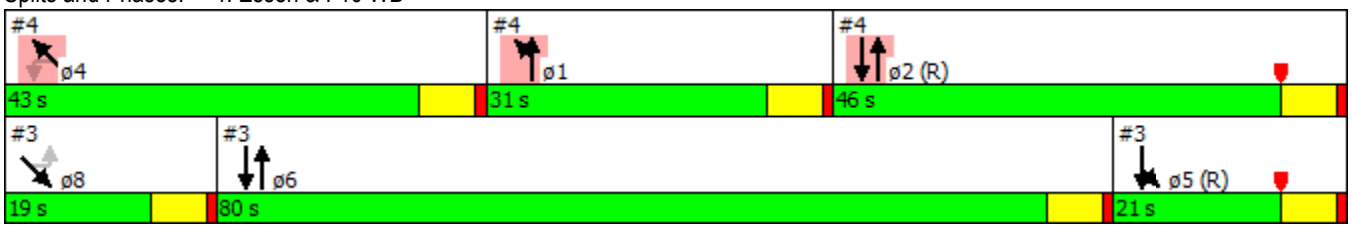
Lane Group	ø5	ø6	ø8
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	5	6	8
Permitted Phases			
Detector Phase			

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0				10.0					3.0	3.0	
Minimum Split (s)	9.0				16.0					9.0	9.0	
Total Split (s)	31.0				46.0					43.0	43.0	
Total Split (%)	25.8%				38.3%					35.8%	35.8%	
Maximum Green (s)	25.0				40.0					37.0	37.0	
Yellow Time (s)	5.0				5.0					5.0	5.0	
All-Red Time (s)	1.0				1.0					1.0	1.0	
Lost Time Adjust (s)	0.0				0.0					0.0	0.0	
Total Lost Time (s)	6.0				6.0					6.0	6.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?	Yes									Yes	Yes	
Vehicle Extension (s)	2.5				4.0					4.0	4.0	
Minimum Gap (s)	0.2				2.0					0.2	0.2	
Time Before Reduce (s)	0.0				10.0					0.0	0.0	
Time To Reduce (s)	0.0				20.0					0.0	0.0	
Recall Mode	None				C-Max					None	None	
Act Effct Green (s)	24.5	81.3			50.8					26.7	26.7	120.0
Actuated g/C Ratio	0.20	0.68			0.42					0.22	0.22	1.00
v/c Ratio	0.74	0.48			0.52					0.75	0.75	0.55
Control Delay	27.3	12.4			29.0					55.5	55.5	1.4
Queue Delay	0.0	0.4			0.0					0.4	0.4	0.0
Total Delay	27.3	12.8			29.0					56.0	56.0	1.4
LOS	C	B			C					E	E	A
Approach Delay		17.3			29.0						22.9	
Approach LOS		B			C						C	
Queue Length 50th (ft)	127	481			218					213	213	0
Queue Length 95th (ft)	203	554			302					289	289	0
Internal Link Dist (ft)		329			725			856			1310	
Turn Bay Length (ft)										750		
Base Capacity (vph)	764	2382			2698					518	518	1583
Starvation Cap Reductn	0	612			0					0	0	0
Spillback Cap Reductn	0	85			0					47	47	38
Storage Cap Reductn	0	0			0					0	0	0
Reduced v/c Ratio	0.68	0.65			0.52					0.59	0.59	0.56

Intersection Summary

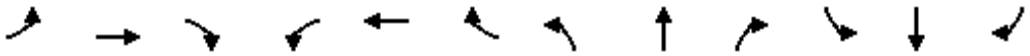
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 34 (28%), Referenced to phase 2:NBSB and 5:, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.09
Intersection Signal Delay: 22.7 Intersection LOS: C
Intersection Capacity Utilization 63.1% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 4: Essen & I-10 WB

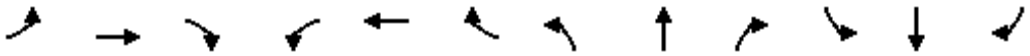


Lane Group	ø5	ø6	ø8
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	21.0	80.0	19.0
Total Split (%)	18%	67%	16%
Maximum Green (s)	15.0	74.0	13.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lead
Lead-Lag Optimize?		Yes	Yes
Vehicle Extension (s)	2.5	4.0	2.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	C-Max	None	Min
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	39	0	47	154	0	202	42	1656	95	271	2826	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	300		0	150		200	200		0
Storage Lanes	2		0	2		1	1		1	1		0
Taper Length (ft)	25			25			100			50		
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Frt		0.850				0.850			0.850		0.995	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	1583	0	3433	1863	1583	1770	5085	1583	1770	5060	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1583	0	3433	1863	1583	1770	5085	1583	1770	5060	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		191									8	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1089			896			1088			483	
Travel Time (s)		24.8			20.4			16.5			7.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	41	0	49	162	0	213	44	1743	100	285	2975	105
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	49	0	162	0	213	44	1743	100	285	3080	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left		Right			Right			
Leading Detector (ft)	45	45		20	45	20	45	162	20	45	162	
Trailing Detector (ft)	0	0		0	0	0	0	156	0	0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6	0	0	-6	
Detector 1 Size(ft)	45	45		20	45	20	45	51	20	45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot		Free	Prot	NA	pt+ov	Prot	NA	
Protected Phases	3	8		7	4		1	6	6 7	5	2	
Permitted Phases						Free						
Detector Phase	3	8		7	4		1	6	6 7	5	2	

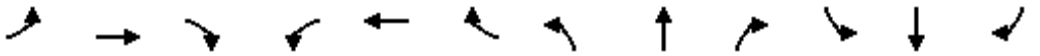


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	5.0		4.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	10.0	11.0		10.0	11.0		11.0	21.0		11.0	21.0	
Total Split (s)	11.0	13.0		16.0	18.0		11.0	58.0		33.0	80.0	
Total Split (%)	9.2%	10.8%		13.3%	15.0%		9.2%	48.3%		27.5%	66.7%	
Maximum Green (s)	5.0	7.0		10.0	12.0		5.0	52.0		27.0	74.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	2.0		3.0	2.0		2.0	2.5		2.0	2.0	
Minimum Gap (s)	3.0	0.2		3.0	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	14.7	5.0		9.5		120.0	5.0	61.0	76.5	22.7	80.9	
Actuated g/C Ratio	0.12	0.04		0.08		1.00	0.04	0.51	0.64	0.19	0.67	
v/c Ratio	0.10	0.20		0.60		0.13	0.61	0.67	0.10	0.85	0.90	
Control Delay	43.6	1.8		62.7		0.2	77.4	19.0	6.4	64.4	14.3	
Queue Delay	0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0	1.1	
Total Delay	43.6	1.8		62.7		0.2	77.4	19.0	6.4	64.4	15.4	
LOS	D	A		E		A	E	B	A	E	B	
Approach Delay		20.8						19.7			19.6	
Approach LOS		C						B			B	
Queue Length 50th (ft)	13	0		63		0	35	449	15	197	715	
Queue Length 95th (ft)	30	0		100		0	m58	m255	m23	m235	#197	
Internal Link Dist (ft)		1009			816			1008			403	
Turn Bay Length (ft)	200			300			150		200	200		
Base Capacity (vph)	420	272		286		1583	73	2583	1015	398	3413	
Starvation Cap Reductn	0	0		0		0	0	0	0	0	151	
Spillback Cap Reductn	0	0		0		0	0	0	0	0	0	
Storage Cap Reductn	0	0		0		0	0	0	0	0	0	
Reduced v/c Ratio	0.10	0.18		0.57		0.13	0.60	0.67	0.10	0.72	0.94	

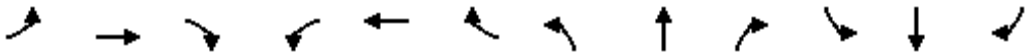
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 87 (73%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 20.1		Intersection LOS: C	
Intersection Capacity Utilization 86.2%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Essen & Dijon/Dijon Ext



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	6	99	6	46	1	1774	124	190	3091	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	100		0	350		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			150		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.865				0.850		0.990			0.999	
Flt Protected					0.955		0.950			0.950		
Satd. Flow (prot)	0	1611	0	0	1779	1583	1770	5034	0	1770	5080	0
Flt Permitted					0.734		0.950			0.950		
Satd. Flow (perm)	0	1611	0	0	1367	1583	1770	5034	0	1770	5080	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		136						13			2	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		496			1336			483			721	
Travel Time (s)		11.3			30.4			7.3			10.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	6	104	6	48	1	1867	131	200	3254	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	6	0	0	110	48	1	1998	0	200	3279	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45	45	45	144		45	162	
Trailing Detector (ft)	0	0		0	0	0	0	138		0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	20	45		20	45	45	45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								138			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type		NA		Perm	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases		8			4	4 5	1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4	4 5	1	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		4.0	15.0		3.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	21.0		9.0	21.0	
Total Split (s)	25.0	25.0		25.0	25.0		11.0	66.0		29.0	84.0	
Total Split (%)	20.8%	20.8%		20.8%	20.8%		9.2%	55.0%		24.2%	70.0%	
Maximum Green (s)	19.0	19.0		19.0	19.0		5.0	60.0		23.0	78.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		3.0	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)		13.7			13.7	37.3	5.3	70.7		17.6	92.1	
Actuated g/C Ratio		0.11			0.11	0.31	0.04	0.59		0.15	0.77	
v/c Ratio		0.02			0.71	0.10	0.01	0.67		0.77	0.84	
Control Delay		0.2			73.9	26.4	35.0	5.7		63.0	8.6	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	1.6	
Total Delay		0.2			73.9	26.4	35.0	5.7		63.0	10.2	
LOS		A			E	C	C	A		E	B	
Approach Delay		0.2			59.5			5.7			13.3	
Approach LOS		A			E			A			B	
Queue Length 50th (ft)		0			83	26	1	81		141	121	
Queue Length 95th (ft)		0			140	48	m1	49		m165	m656	
Internal Link Dist (ft)		416			1256			403			641	
Turn Bay Length (ft)						100	100			350		
Base Capacity (vph)		369			216	551	78	2972		339	3898	
Starvation Cap Reductn		0			0	0	0	0		0	343	
Spillback Cap Reductn		0			0	0	0	0		0	416	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.02			0.51	0.09	0.01	0.67		0.59	0.94	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 104 (87%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 11.9		Intersection LOS: B	
Intersection Capacity Utilization 91.1%		ICU Level of Service F	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 9: Essen & Essen Park

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	196	192	1709	757	370	1129
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		0	150	
Storage Lanes	2	1		0	1	
Taper Length (ft)	25				100	
Lane Util. Factor	0.97	1.00	0.91	0.91	1.00	0.95
Frt		0.850	0.954			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	4851	0	1770	3539
Flt Permitted	0.950				0.056	
Satd. Flow (perm)	3433	1583	4851	0	104	3539
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			143			
Link Speed (mph)	30		45			45
Link Distance (ft)	1306		805			993
Travel Time (s)	29.7		12.2			15.0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	206	202	1799	797	389	1188
Shared Lane Traffic (%)						
Lane Group Flow (vph)	206	202	2596	0	389	1188
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	52		20			25
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2		1	2
Detector Template						
Leading Detector (ft)	45	45	162		45	162
Trailing Detector (ft)	0	0	156		0	156
Detector 1 Position(ft)	0	0	-6		0	-6
Detector 1 Size(ft)	45	45	51		45	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			156			156
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm	pt+ov	NA		pm+pt	NA
Protected Phases		5 8	6		5	2
Permitted Phases	8				2	
Detector Phase	8	5 8	6		5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	4.0		15.0		5.0	15.0
Minimum Split (s)	20.0		21.0		11.0	21.0
Total Split (s)	20.0		70.0		30.0	100.0
Total Split (%)	16.7%		58.3%		25.0%	83.3%
Maximum Green (s)	16.0		64.0		24.0	94.0
Yellow Time (s)	3.5		5.0		5.0	5.0
All-Red Time (s)	0.5		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.0		6.0		6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		5.0		2.0	5.0
Minimum Gap (s)	3.0		3.0		0.2	3.0
Time Before Reduce (s)	0.0		15.0		0.0	15.0
Time To Reduce (s)	0.0		15.0		0.0	15.0
Recall Mode	None		C-Min		None	Min
Walk Time (s)	5.0					
Flash Dont Walk (s)	11.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	14.7	41.9	66.1		95.3	95.3
Actuated g/C Ratio	0.12	0.35	0.55		0.79	0.79
v/c Ratio	0.49	0.37	0.95		0.96	0.42
Control Delay	53.1	30.8	22.2		69.8	6.3
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	53.1	30.8	22.2		69.8	6.3
LOS	D	C	C		E	A
Approach Delay	42.1		22.2			21.9
Approach LOS	D		C			C
Queue Length 50th (ft)	76	113	731		275	205
Queue Length 95th (ft)	115	178	#802		#447	247
Internal Link Dist (ft)	1226		725			913
Turn Bay Length (ft)		100			150	
Base Capacity (vph)	457	548	2735		415	2811
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.45	0.37	0.95		0.94	0.42

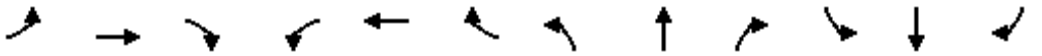
Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 20 (17%), Referenced to phase 6:NBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 23.9	Intersection LOS: C
Intersection Capacity Utilization 89.4%	ICU Level of Service E

Analysis Period (min) 15

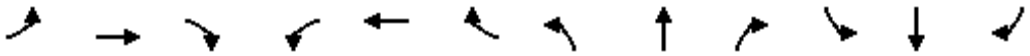
\# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 17: Essen & United Plaza South



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	344	28	22	55	107	176	115	1273	55	198	1534	1295
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	425		50	280		280	150		0	550		300
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	100			200			25			100		
Lane Util. Factor	0.91	0.91	1.00	0.95	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Frt			0.850			0.850		0.994				0.850
Flt Protected	0.950	0.963		0.950	0.997		0.950			0.950		
Satd. Flow (prot)	3221	1632	1583	1681	1764	1583	1770	5055	0	1770	5085	1583
Flt Permitted	0.950	0.963		0.950	0.997		0.950			0.950		
Satd. Flow (perm)	3221	1632	1583	1681	1764	1583	1770	5055	0	1770	5085	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								7				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1908			1396			1335			1088	
Travel Time (s)		43.4			31.7			20.2			16.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	362	29	23	58	113	185	121	1340	58	208	1615	1363
Shared Lane Traffic (%)	28%			10%								
Lane Group Flow (vph)	261	130	23	52	119	185	121	1398	0	208	1615	1363
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		45			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	0	1	1	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	0	45	45	45	45	162		45	162	0
Trailing Detector (ft)	0	0	0	0	0	0	0	156		0	156	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	-6		0	-6	-6
Detector 1 Size(ft)	45	45	20	45	45	45	45	51		45	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Call
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4	4 5	1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4	4 5	1	6		5	2	2 8



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.5	14.5		14.5	14.5		9.0	21.0		9.0	21.0	
Total Split (s)	16.0	16.0		15.0	15.0		14.0	57.0		32.0	75.0	
Total Split (%)	13.3%	13.3%		12.5%	12.5%		11.7%	47.5%		26.7%	62.5%	
Maximum Green (s)	9.5	9.5		8.5	8.5		8.0	51.0		26.0	69.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	9.5	9.5	17.0	8.5	8.5	32.9	8.0	58.6		18.4	69.0	85.0
Actuated g/C Ratio	0.08	0.08	0.14	0.07	0.07	0.27	0.07	0.49		0.15	0.58	0.71
v/c Ratio	1.03	1.01	0.10	0.44	0.96	0.43	1.03	0.57		0.77	0.55	1.22
Control Delay	117.8	136.6	31.3	65.4	126.6	38.1	155.0	14.7		70.7	12.4	117.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	117.8	136.6	31.3	65.4	126.6	38.1	155.0	14.7		70.7	12.4	117.8
LOS	F	F	C	E	F	D	F	B		E	B	F
Approach Delay		118.9			71.7			25.8			61.3	
Approach LOS		F			E			C			E	
Queue Length 50th (ft)	~118	~113	12	41	98	118	~102	286		173	122	~1287
Queue Length 95th (ft)	#210	#257	32	86	#225	173	#230	367		m194	148	m#1526
Internal Link Dist (ft)		1828			1316			1255			1008	
Turn Bay Length (ft)	425		50	280		280	150			550		300
Base Capacity (vph)	254	129	224	119	124	534	118	2471		383	2923	1121
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	1.03	1.01	0.10	0.44	0.96	0.35	1.03	0.57		0.54	0.55	1.22

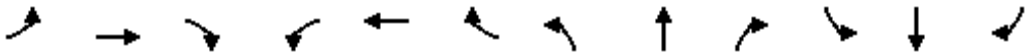
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 86 (72%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.22			
Intersection Signal Delay: 56.5		Intersection LOS: E	
Intersection Capacity Utilization 108.6%		ICU Level of Service G	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Essen & Hennessy/Summa

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	47	71	47	169	21	210	1342	93	72	1221	317
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	150		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.909			0.983			0.990			0.969	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1693	0	1770	1831	0	1770	5034	0	1770	4928	0
Flt Permitted	0.354			0.579			0.950			0.950		
Satd. Flow (perm)	659	1693	0	1079	1831	0	1770	5034	0	1770	4928	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		60			5			15			68	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1062			1416			1475			1335	
Travel Time (s)		24.1			32.2			22.3			20.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	84	49	75	49	178	22	221	1413	98	76	1285	334
Shared Lane Traffic (%)												
Lane Group Flow (vph)	84	124	0	49	200	0	221	1511	0	76	1619	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template												
Leading Detector (ft)	45	45		45	45		45	162		45	162	
Trailing Detector (ft)	0	0		0	0		0	156		0	156	
Detector 1 Position(ft)	0	0		0	0		0	-6		0	-6	
Detector 1 Size(ft)	45	45		45	45		45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4		1	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		2.0	15.0		3.0	15.0	
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	21.0		9.0	21.0	
Total Split (s)	33.0	33.0		33.0	33.0		29.0	73.0		14.0	58.0	
Total Split (%)	27.5%	27.5%		27.5%	27.5%		24.2%	60.8%		11.7%	48.3%	
Maximum Green (s)	28.0	28.0		28.0	28.0		23.0	67.0		8.0	52.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Act Effct Green (s)	17.7	17.7		17.7	17.7		19.0	80.1		7.7	66.3	
Actuated g/C Ratio	0.15	0.15		0.15	0.15		0.16	0.67		0.06	0.55	
v/c Ratio	0.87	0.41		0.31	0.73		0.79	0.45		0.67	0.59	
Control Delay	110.1	27.6		48.9	62.5		68.4	11.1		67.6	10.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	110.1	27.6		48.9	62.5		68.4	11.1		67.6	10.7	
LOS	F	C		D	E		E	B		E	B	
Approach Delay		60.9			59.8			18.4			13.2	
Approach LOS		E			E			B			B	
Queue Length 50th (ft)	64	44		34	146		166	199		56	109	
Queue Length 95th (ft)	#134	98		69	214		247	274		m#124	119	
Internal Link Dist (ft)		982			1336			1395			1255	
Turn Bay Length (ft)	225			150			150			150		
Base Capacity (vph)	153	441		251	431		339	3364		118	2753	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.55	0.28		0.20	0.46		0.65	0.45		0.64	0.59	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 76 (63%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 21.1		Intersection LOS: C	
Intersection Capacity Utilization 75.2%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Essen & Picardy

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	26	31	2031	205	397	1521
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	125		125	125	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.88	0.91	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2787	5085	1583	1770	3539
Flt Permitted	0.950				0.054	
Satd. Flow (perm)	1770	2787	5085	1583	101	3539
Right Turn on Red		Yes		No		
Satd. Flow (RTOR)		33				
Link Speed (mph)	30		45			45
Link Distance (ft)	1179		993			571
Travel Time (s)	26.8		15.0			8.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	27	33	2138	216	418	1601
Shared Lane Traffic (%)						
Lane Group Flow (vph)	27	33	2138	216	418	1601
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	42		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template						
Leading Detector (ft)	45	45	290	45	45	290
Trailing Detector (ft)	-6	-6	284	-6	-6	284
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			284			284
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	pt+ov	pm+pt	NA
Protected Phases	4		6	6 4	5	2
Permitted Phases		4			2	
Detector Phase	4	4	6	6 4	5	2

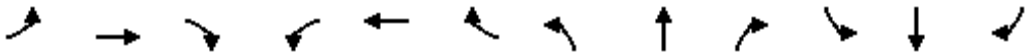
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	5.0	5.0	15.0		3.0	15.0
Minimum Split (s)	11.0	11.0	21.0		9.0	21.0
Total Split (s)	17.0	17.0	62.0		41.0	103.0
Total Split (%)	14.2%	14.2%	51.7%		34.2%	85.8%
Maximum Green (s)	11.0	11.0	56.0		35.0	97.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0
Recall Mode	None	None	C-Min		None	C-Min
Act Effct Green (s)	6.6	6.6	68.1	80.7	101.4	101.4
Actuated g/C Ratio	0.06	0.06	0.57	0.67	0.84	0.84
v/c Ratio	0.28	0.18	0.74	0.20	0.90	0.54
Control Delay	61.0	19.5	12.7	3.7	62.7	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	61.0	19.5	12.8	3.7	62.7	0.9
LOS	E	B	B	A	E	A
Approach Delay	38.2		11.9			13.7
Approach LOS	D		B			B
Queue Length 50th (ft)	20	0	265	17	291	8
Queue Length 95th (ft)	51	18	m666	m61	329	1
Internal Link Dist (ft)	1099		913			491
Turn Bay Length (ft)		125		125	125	
Base Capacity (vph)	162	285	2885	1122	578	2989
Starvation Cap Reductn	0	0	0	0	0	406
Spillback Cap Reductn	0	0	38	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.12	0.75	0.19	0.72	0.62

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 45 (38%), Referenced to phase 2:SBTL and 6:NBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 13.1 Intersection LOS: B
Intersection Capacity Utilization 80.4% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 28: Essen & United Plaza North

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	2	22	30	0	34	18	1917	127	385	1865	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		100	175		0	150		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	0.95
Frt		0.862				0.850		0.991			0.998	
Flt Protected	0.950				0.950		0.950			0.950		
Satd. Flow (prot)	1770	1606	0	0	1770	1583	1770	5040	0	1770	3532	0
Flt Permitted	0.736				0.741		0.099			0.062		
Satd. Flow (perm)	1371	1606	0	0	1380	1583	184	5040	0	115	3532	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		23						11			2	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		757			843			571			472	
Travel Time (s)		17.2			19.2			8.7			7.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	47	2	23	32	0	36	19	2018	134	405	1963	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	25	0	0	32	36	19	2152	0	405	1986	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290		45	390	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284		-6	384	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6		-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51		51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			384	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		8		7	4	4 5	1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4	4 5	1	6		5	2	

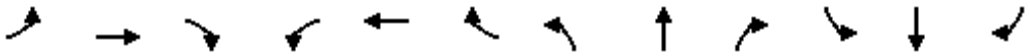


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	31.0		11.0	31.0	
Total Split (s)	14.0	14.0		11.0	25.0		11.0	59.0		36.0	84.0	
Total Split (%)	11.7%	11.7%		9.2%	20.8%		9.2%	49.2%		30.0%	70.0%	
Maximum Green (s)	8.0	8.0		5.0	19.0		5.0	53.0		30.0	78.0	
Yellow Time (s)	4.5	4.5		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		2.0	2.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lead		Lag			Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	3.0		0.2	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	7.9	7.9			7.9	37.5	70.5	70.5		94.8	96.0	
Actuated g/C Ratio	0.07	0.07			0.07	0.31	0.59	0.59		0.79	0.80	
v/c Ratio	0.52	0.20			0.35	0.07	0.09	0.73		0.91	0.70	
Control Delay	73.6	24.3			63.4	23.6	6.5	5.9		55.2	5.1	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.7	0.6	
Total Delay	73.6	24.3			63.4	23.6	6.5	5.9		55.9	5.7	
LOS	E	C			E	C	A	A		E	A	
Approach Delay		56.5			42.3			5.9			14.2	
Approach LOS		E			D			A			B	
Queue Length 50th (ft)	36	2			24	19	1	26		243	84	
Queue Length 95th (ft)	76	29			57	36	m3	114		m239	152	
Internal Link Dist (ft)		677			763			491			392	
Turn Bay Length (ft)	75					100	175			150		
Base Capacity (vph)	99	138			218	573	215	2966		528	2856	
Starvation Cap Reductn	0	0			0	0	0	1		19	428	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.47	0.18			0.15	0.06	0.09	0.73		0.80	0.82	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 34 (28%), Referenced to phase 2:SBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 11.4		Intersection LOS: B	
Intersection Capacity Utilization 85.4%		ICU Level of Service E	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 29: Essen & Sholar/Archives

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	401	0	316	0	0	0	0	1352	644	0	1956	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.867							0.850			
Flt Protected	0.950	0.994										
Satd. Flow (prot)	1681	1525	0	0	0	0	0	3539	1583	0	3539	0
Flt Permitted	0.950	0.994										
Satd. Flow (perm)	1681	1525	0	0	0	0	0	3539	1583	0	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36							299			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		995			508			472			1384	
Travel Time (s)		22.6			11.5			7.2			21.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	422	0	333	0	0	0	0	1423	678	0	2059	0
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	380	375	0	0	0	0	0	1423	678	0	2059	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1						2	1		2	
Detector Template												
Leading Detector (ft)	45	45						290	45		290	
Trailing Detector (ft)	-6	-6						284	-6		284	
Detector 1 Position(ft)	-6	-6						-6	-6		-6	
Detector 1 Size(ft)	51	51						51	51		51	
Detector 1 Type	Cl+Ex	Cl+Ex						Call	Cl+Ex		Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0		0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA						NA	Free		NA	
Protected Phases		8						6			2	
Permitted Phases	8								Free			
Detector Phase	8	8						6			2	

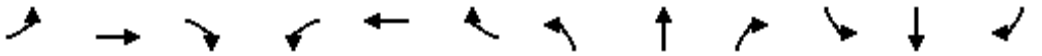


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	10.0	10.0						25.0			25.0	
Minimum Split (s)	17.0	17.0						32.0			32.0	
Total Split (s)	38.0	38.0						82.0			82.0	
Total Split (%)	31.7%	31.7%						68.3%			68.3%	
Maximum Green (s)	31.0	31.0						75.0			75.0	
Yellow Time (s)	5.0	5.0						5.0			5.0	
All-Red Time (s)	2.0	2.0						2.0			2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	7.0	7.0						7.0			7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5						5.0			5.0	
Minimum Gap (s)	0.2	0.2						3.0			3.0	
Time Before Reduce (s)	0.0	0.0						15.0			15.0	
Time To Reduce (s)	0.0	0.0						15.0			15.0	
Recall Mode	None	None						C-Max			Max	
Act Effct Green (s)	29.5	29.5						76.5	120.0		76.5	
Actuated g/C Ratio	0.25	0.25						0.64	1.00		0.64	
v/c Ratio	0.92	0.94						0.63	0.43		0.91	
Control Delay	72.5	71.3						13.2	1.5		27.0	
Queue Delay	0.0	0.0						0.2	0.0		0.1	
Total Delay	72.5	71.3						13.4	1.5		27.1	
LOS	E	E						B	A		C	
Approach Delay		71.9						9.6			27.1	
Approach LOS		E						A			C	
Queue Length 50th (ft)	297	270						179	0		702	
Queue Length 95th (ft)	#480	#460						294	0		#860	
Internal Link Dist (ft)		915			428			392			1304	
Turn Bay Length (ft)	400											
Base Capacity (vph)	434	420						2255	1583		2255	
Starvation Cap Reductn	0	0						215	0		0	
Spillback Cap Reductn	0	0						0	0		11	
Storage Cap Reductn	0	0						0	0		0	
Reduced v/c Ratio	0.88	0.89						0.70	0.43		0.92	

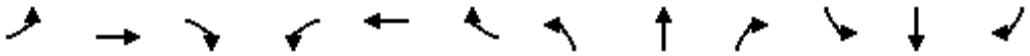
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 30 (25%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 26.5		Intersection LOS: C	
Intersection Capacity Utilization 86.5%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 32: Essen & I-12 EB

M.33 2037 BUILD AM – BLUEBONNET BOULEVARD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	156	748	40	355	849	170	227	1303	239	220	919	243
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		250	325		375	350		0	250		150
Storage Lanes	2		1	2		1	2		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Frt			0.850			0.850		0.977				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3458	0	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3458	0	3433	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								16				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		2445			3864			2201			709	
Travel Time (s)		37.0			58.5			33.3			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	164	787	42	374	894	179	239	1372	252	232	967	256
Shared Lane Traffic (%)												
Lane Group Flow (vph)	164	787	42	374	894	179	239	1624	0	232	967	256
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45	45	290		45	290	45
Trailing Detector (ft)	-6	284	-6	-6	284	-6	-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6	-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51	51	51		51	51	51
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		284			284			284			284	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Extend			Extend			Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8		7	4	4 5
Permitted Phases												
Detector Phase	5	2	2 3	1	6	6 7	3	8		7	4	4 5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	10.0		4.0	10.0	
Minimum Split (s)	11.0	34.5		11.0	37.5		11.0	41.0		11.0	41.0	
Total Split (s)	15.0	44.2		25.0	54.2		24.0	82.8		18.0	76.8	
Total Split (%)	8.8%	26.0%		14.7%	31.9%		14.1%	48.7%		10.6%	45.2%	
Maximum Green (s)	8.0	37.7		18.0	47.7		17.0	75.8		11.0	69.8	
Yellow Time (s)	5.0	4.5		5.0	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	6.5		7.0	6.5		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.3		3.0	4.3		3.0	3.9		3.0	3.9	
Minimum Gap (s)	0.2	2.2		0.2	2.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	15.0		0.0	15.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0		0.0	10.0		0.0	10.0	
Recall Mode	None	Min		None	Min		None	Min		None	C-Min	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		23.0			26.0			29.0			29.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	8.0	37.7	72.1	18.0	47.7	65.7	33.9	75.8		11.0	52.9	60.9
Actuated g/C Ratio	0.05	0.22	0.42	0.11	0.28	0.39	0.20	0.45		0.06	0.31	0.36
v/c Ratio	1.02	1.00	0.06	1.03	0.90	0.29	0.35	1.05		1.05	0.88	0.45
Control Delay	152.2	97.7	18.4	126.9	71.6	37.7	62.0	81.1		148.9	58.9	26.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.1	0.0
Total Delay	152.2	97.7	18.4	126.9	71.6	37.7	62.0	81.1		148.9	59.0	26.4
LOS	F	F	B	F	E	D	E	F		F	E	C
Approach Delay		103.3			81.7			78.7			67.6	
Approach LOS		F			F			E			E	
Queue Length 50th (ft)	~98	~468	18	~228	508	138	120	~1025		~140	542	86
Queue Length 95th (ft)	#183	#614	42	#340	#621	205	176	#1163		#244	478	195
Internal Link Dist (ft)		2365			3784			2121			629	
Turn Bay Length (ft)	440		250	325		375	350			250		150
Base Capacity (vph)	161	784	670	363	993	611	683	1550		222	1453	724
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	39	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	1.02	1.00	0.06	1.03	0.90	0.29	0.35	1.05		1.05	0.68	0.35

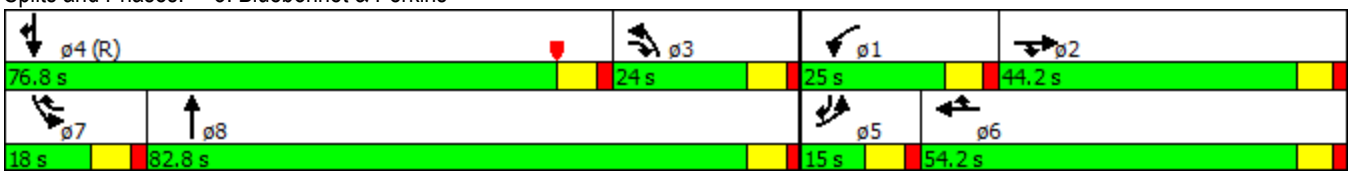
Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 50 (29%), Referenced to phase 4:SBT, Start of Yellow			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.05			
Intersection Signal Delay: 80.9		Intersection LOS: F	
Intersection Capacity Utilization 103.6%		ICU Level of Service G	

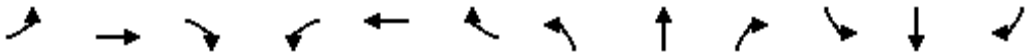
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

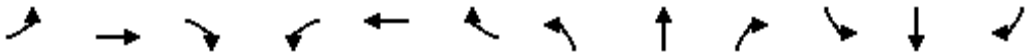
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Bluebonnet & Perkins





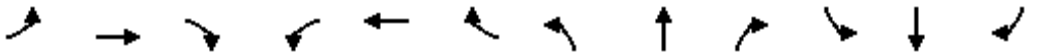
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	69	17	26	26	3	25	44	1509	78	381	1330	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		125	160		160	175		0
Storage Lanes	1		0	0		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.910				0.850			0.850		0.993	
Flt Protected	0.950				0.957		0.950			0.950		
Satd. Flow (prot)	1770	1695	0	0	1783	1583	1770	3539	1583	3433	3514	0
Flt Permitted	0.738				0.764		0.950			0.950		
Satd. Flow (perm)	1375	1695	0	0	1423	1583	1770	3539	1583	3433	3514	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		27									6	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		511			1048			709			2556	
Travel Time (s)		11.6			23.8			10.7			38.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	73	18	27	27	3	26	46	1588	82	401	1400	69
Shared Lane Traffic (%)												
Lane Group Flow (vph)	73	45	0	0	30	26	46	1588	82	401	1469	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290	45	45	290	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284	-6	-6	284	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6	-6	-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	
Protected Phases		8		7	4	4 5	1	6	6 7	5	2	
Permitted Phases	8			4								
Detector Phase	8	8		7	4	4 5	1	6	6 7	5	2	



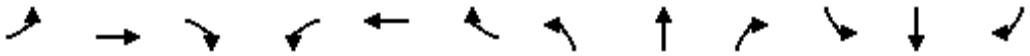
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		3.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	11.0	11.0		9.0	11.0		9.0	21.0		9.0	21.0	
Total Split (s)	22.0	22.0		11.0	33.0		20.0	102.0		35.0	117.0	
Total Split (%)	12.9%	12.9%		6.5%	19.4%		11.8%	60.0%		20.6%	68.8%	
Maximum Green (s)	16.0	16.0		5.0	27.0		14.0	96.0		29.0	111.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lead		Lag			Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		1.5	2.0		1.5	4.0		1.5	4.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	12.8	12.8			25.1	54.9	8.4	103.1	115.4	23.8	120.6	
Actuated g/C Ratio	0.08	0.08			0.15	0.32	0.05	0.61	0.68	0.14	0.71	
v/c Ratio	0.71	0.30			0.13	0.05	0.53	0.74	0.08	0.84	0.59	
Control Delay	109.6	40.7			63.0	36.8	91.7	27.2	12.5	86.7	14.7	
Queue Delay	0.0	0.0			0.0	0.0	0.0	1.2	0.0	0.0	0.0	
Total Delay	109.6	40.7			63.0	36.8	91.7	28.4	12.5	86.7	14.7	
LOS	F	D			E	D	F	C	B	F	B	
Approach Delay		83.3			50.8			29.3			30.1	
Approach LOS		F			D			C			C	
Queue Length 50th (ft)	81	19			29	20	53	544	44	227	432	
Queue Length 95th (ft)	140	63			63	43	m56	m193	m19	281	537	
Internal Link Dist (ft)		431			968			629			2476	
Turn Bay Length (ft)	100					125	160		160	175		
Base Capacity (vph)	129	183			245	527	145	2149	1064	585	2494	
Starvation Cap Reductn	0	0			0	0	0	325	0	0	0	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.57	0.25			0.12	0.05	0.32	0.87	0.08	0.69	0.59	

Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 85 (50%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 31.7		Intersection LOS: C	
Intersection Capacity Utilization 78.1%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Bluebonnet & Park Rowe



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	169	8	42	17	4	29	65	1531	7	65	1718	460
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	475		475	50		0	425		0	130		130
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.867			0.999				0.850
Flt Protected	0.950	0.956		0.950			0.950			0.950		
Satd. Flow (prot)	1681	1692	1583	1770	1615	0	1770	3536	0	1770	3539	1583
Flt Permitted	0.950	0.956		0.950			0.950			0.950		
Satd. Flow (perm)	1681	1692	1583	1770	1615	0	1770	3536	0	1770	3539	1583
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)					31			1				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1004			740			2556			469	
Travel Time (s)		22.8			16.8			38.7			7.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	178	8	44	18	4	31	68	1612	7	68	1808	484
Shared Lane Traffic (%)	48%											
Lane Group Flow (vph)	93	93	44	18	35	0	68	1619	0	68	1808	484
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	45	45	45		45	290		45	290	45
Trailing Detector (ft)	-6	-6	-6	-6	-6		-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6		-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51		51	51		51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA		Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4		1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4		1	6		5	2	2 8

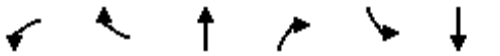


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.5	25.5		8.5	25.5	
Total Split (s)	14.0	14.0		12.0	12.0		13.0	75.0		14.0	76.0	
Total Split (%)	12.2%	12.2%		10.4%	10.4%		11.3%	65.2%		12.2%	66.1%	
Maximum Green (s)	9.0	9.0		7.0	7.0		7.5	69.5		8.5	70.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	6.0		3.0	6.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	9.1	9.1	21.9	7.0	7.0		7.3	73.9		8.7	75.4	86.2
Actuated g/C Ratio	0.08	0.08	0.19	0.06	0.06		0.06	0.64		0.08	0.66	0.75
v/c Ratio	0.70	0.69	0.15	0.17	0.28		0.61	0.71		0.51	0.78	0.41
Control Delay	78.9	78.2	40.3	55.1	25.5		75.4	17.5		41.7	9.8	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.1		0.0	0.0	0.0
Total Delay	78.9	78.2	40.3	55.1	25.5		75.4	17.6		41.7	9.8	1.7
LOS	E	E	D	E	C		E	B		D	A	A
Approach Delay		71.2			35.6			19.9			9.0	
Approach LOS		E			D			B			A	
Queue Length 50th (ft)	71	71	27	13	3		50	434		44	149	20
Queue Length 95th (ft)	#160	#158	61	37	36		#111	523		m70	225	44
Internal Link Dist (ft)		924			660			2476			389	
Turn Bay Length (ft)	475		475	50			425			130		130
Base Capacity (vph)	133	134	304	107	127		115	2293		141	2319	1186
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	83		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.70	0.69	0.14	0.17	0.28		0.59	0.73		0.48	0.78	0.41

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 75 (65%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 16.9		Intersection LOS: B	
Intersection Capacity Utilization 74.3%		ICU Level of Service D	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Bluebonnet & Anselmo



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Lane Configurations									
Volume (vph)	150	51	1650	79	60	2093			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	0	100		150	350				
Storage Lanes	2	1		1	1				
Taper Length (ft)	25				25				
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.91			
Frt		0.850		0.850					
Flt Protected	0.950				0.950				
Satd. Flow (prot)	3433	1583	3539	1583	1770	5085			
Flt Permitted	0.950				0.950				
Satd. Flow (perm)	3433	1583	3539	1583	1770	5085			
Right Turn on Red		No		No					
Satd. Flow (RTOR)									
Link Speed (mph)	30		45			45			
Link Distance (ft)	352		390			974			
Travel Time (s)	8.0		5.9			14.8			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95			
Adj. Flow (vph)	158	54	1737	83	63	2203			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	158	54	1737	83	63	2203			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Right	Left	Left			
Median Width(ft)	35		20			20			
Link Offset(ft)	0		0			0			
Crosswalk Width(ft)	16		16			16			
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Turning Speed (mph)	15	9		9	15				
Number of Detectors	1	1	2	1	1	2			
Detector Template									
Leading Detector (ft)	45	45	290	45	45	290			
Trailing Detector (ft)	-6	-6	284	-6	-6	284			
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			
Detector 1 Size(ft)	51	51	51	51	51	51			
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call			
Detector 1 Channel									
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)			284			284			
Detector 2 Size(ft)			6			6			
Detector 2 Type			Extend			Extend			
Detector 2 Channel									
Detector 2 Extend (s)			0.0			0.0			
Turn Type	Prot	pt+ov	NA	pt+ov	Prot	NA			
Protected Phases	4	4 3	1	1 4	3	2	5	7	8
Permitted Phases									
Detector Phase	4	4 3	1	1 4	3	2			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Switch Phase									
Minimum Initial (s)	4.0		24.0		4.0	34.0	4.0	4.0	29.0
Minimum Split (s)	10.0		30.0		10.0	40.0	10.0	21.0	35.0
Total Split (s)	35.0		69.0		11.0	80.0	26.0	54.0	35.0
Total Split (%)	30.4%		60.0%		9.6%	69.6%	23%	47%	30%
Maximum Green (s)	30.0		63.0		5.0	74.0	21.0	49.0	29.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		2.0		2.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0			
Total Lost Time (s)	5.0		6.0		6.0	6.0			
Lead/Lag			Lag		Lead		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	
Vehicle Extension (s)	2.5		4.3		2.0	4.3	2.5	3.0	4.3
Minimum Gap (s)	0.2		2.2		0.2	2.2	0.2	3.0	2.2
Time Before Reduce (s)	0.0		20.0		0.0	30.0	0.0	0.0	30.0
Time To Reduce (s)	0.0		15.0		0.0	15.0	0.0	0.0	15.0
Recall Mode	None		Min		None	C-Min	None	None	Min
Walk Time (s)								5.0	
Flash Dont Walk (s)								11.0	
Pedestrian Calls (#/hr)								0	
Act Effct Green (s)	30.0	42.0	62.0	97.0	6.0	74.0			
Actuated g/C Ratio	0.26	0.37	0.54	0.84	0.05	0.64			
v/c Ratio	0.18	0.09	0.91	0.06	0.69	0.67			
Control Delay	22.5	16.0	18.0	0.9	84.1	3.8			
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay	22.5	16.0	18.0	0.9	84.1	3.8			
LOS	C	B	B	A	F	A			
Approach Delay	20.8		17.2			6.0			
Approach LOS	C		B			A			
Queue Length 50th (ft)	40	25	540	6	50	44			
Queue Length 95th (ft)	58	47	433	m6	m#61	47			
Internal Link Dist (ft)	272		310			894			
Turn Bay Length (ft)		100		150	350				
Base Capacity (vph)	895	577	1938	1315	91	3272			
Starvation Cap Reductn	0	0	0	0	0	0			
Spillback Cap Reductn	0	0	0	0	0	0			
Storage Cap Reductn	0	0	0	0	0	0			
Reduced v/c Ratio	0.18	0.09	0.90	0.06	0.69	0.67			

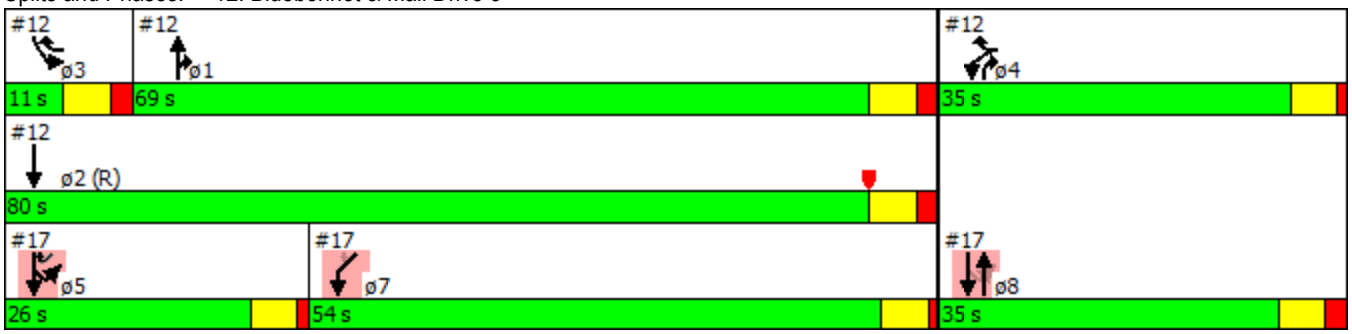
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 79 (69%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 11.5		Intersection LOS: B	
Intersection Capacity Utilization 63.3%		ICU Level of Service B	

Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

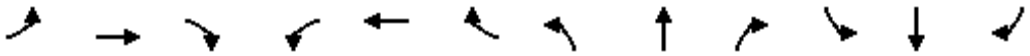
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 12: Bluebonnet & Mall Drive 3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	341	7	240	64	132	22	203	1494	4	46	1848	828
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	140		140	200		200	200		160
Storage Lanes	2		0	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		0.854				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3022	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3022	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		253										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1050			403			974			1065	
Travel Time (s)		23.9			9.2			14.8			16.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	359	7	253	67	139	23	214	1573	4	48	1945	872
Shared Lane Traffic (%)												
Lane Group Flow (vph)	359	260	0	67	139	23	214	1573	4	48	1945	872
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			36			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pt+ov
Protected Phases	3	2		9	8	8 6	1	10	10 9	6	5	5 3
Permitted Phases												
Detector Phase	3	2		9	8	8 6	1	10	10 9	6	5	5 3

Lane Group	ø11	ø12	ø13	ø14
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	11	12	13	14
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	21.0		3.0	21.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		11.0	27.0		11.0	27.0	
Total Split (s)	29.0	29.0		11.0	11.0		21.0	50.0		25.0	54.0	
Total Split (%)	25.2%	25.2%		9.6%	9.6%		18.3%	43.5%		21.7%	47.0%	
Maximum Green (s)	23.0	23.0		5.0	5.0		15.0	44.0		19.0	48.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.0		1.0	1.0		3.0	4.3		1.0	4.3	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	28.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	15.0	
Recall Mode	None	None		None	None		None	None		None	C-Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	23.0	23.0		4.8	5.0	27.5	15.4	48.9	59.7	23.5	47.6	76.6
Actuated g/C Ratio	0.20	0.20		0.04	0.04	0.24	0.13	0.43	0.52	0.20	0.41	0.67
v/c Ratio	0.52	0.32		0.47	0.91	0.06	0.90	0.73	0.00	0.07	0.92	0.83
Control Delay	44.3	6.5		62.4	105.8	49.1	55.1	14.6	1.0	65.0	20.8	11.1
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.3	6.5		62.4	105.8	49.1	55.1	14.6	1.0	65.0	20.8	11.1
LOS	D	A		E	F	D	E	B	A	E	C	B
Approach Delay		28.4			87.4			19.4			18.6	
Approach LOS		C			F			B			B	
Queue Length 50th (ft)	123	2		27	58	18	148	48	0	16	358	53
Queue Length 95th (ft)	171	37		52	#123	46	m#189	92	m0	m19	411	m174
Internal Link Dist (ft)		970			323			894			985	
Turn Bay Length (ft)	150			140		140	200		200	200		160
Base Capacity (vph)	686	806		149	153	525	237	2417	873	1020	2122	1059
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.32		0.45	0.91	0.04	0.90	0.65	0.00	0.05	0.92	0.82

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 63 (55%), Referenced to phase 5:SBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 22.8		Intersection LOS: C	
Intersection Capacity Utilization 81.2%		ICU Level of Service D	

Lane Group	ø11	ø12	ø13	ø14
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	3.0
Minimum Split (s)	10.0	20.0	8.0	9.0
Total Split (s)	11.0	35.0	29.0	40.0
Total Split (%)	10%	30%	25%	35%
Maximum Green (s)	5.0	31.0	25.0	34.0
Yellow Time (s)	4.0	3.5	3.5	4.0
All-Red Time (s)	2.0	0.5	0.5	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	1.0
Minimum Gap (s)	3.0	3.0	3.0	0.2
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Walk Time (s)		5.0		
Flash Dont Walk (s)		11.0		
Pedestrian Calls (#/hr)		0		
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

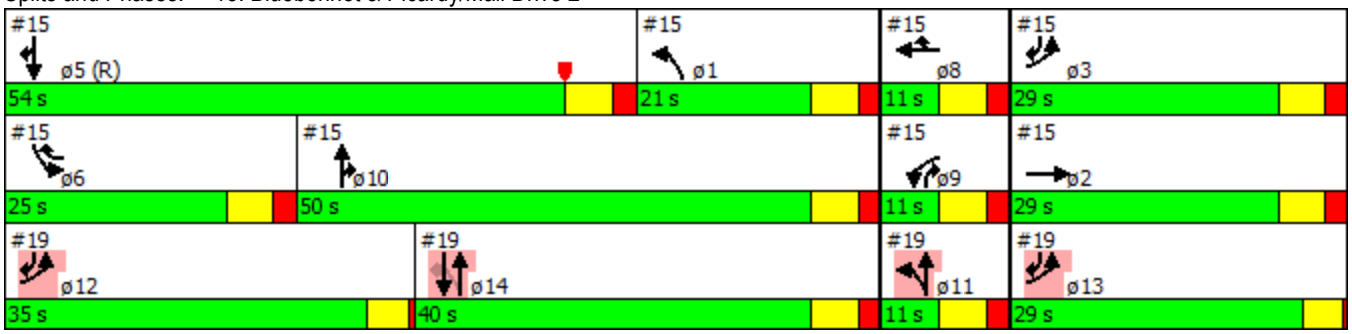
Intersection Summary

Analysis Period (min) 15

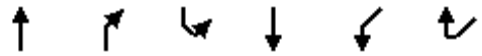
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 15: Bluebonnet & Picardy/Mall Drive 2



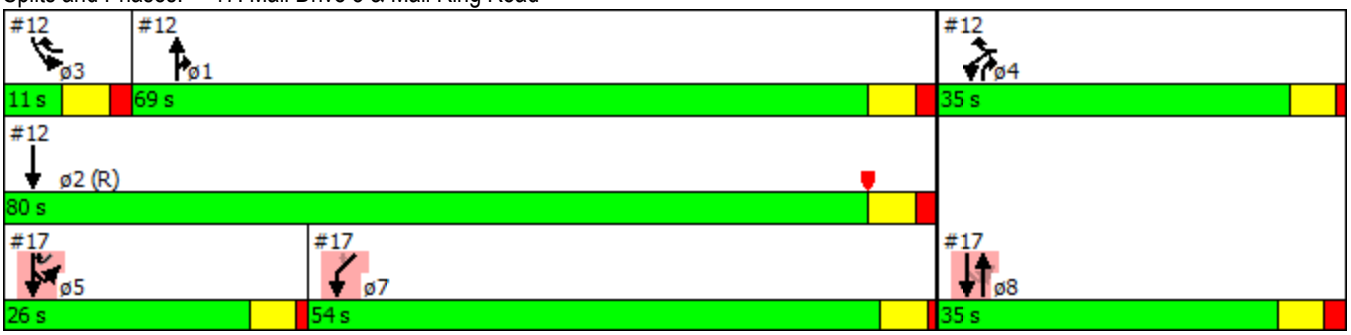
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Lane Configurations										
Volume (vph)	117	106	70	69	88	84				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00				
Frt	0.929					0.850				
Flt Protected			0.950		0.950					
Satd. Flow (prot)	3288	0	1770	1863	1770	1583				
Flt Permitted			0.590		0.950					
Satd. Flow (perm)	3288	0	1099	1863	1770	1583				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)	115					91				
Link Speed (mph)	30			30	30					
Link Distance (ft)	797			352	1050					
Travel Time (s)	18.1			8.0	23.9					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Adj. Flow (vph)	127	115	76	75	96	91				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	242	0	76	75	96	91				
Enter Blocked Intersection	No	No	No	No	No	No				
Lane Alignment	Left	Right	Left	Left	Left	Right				
Median Width(ft)	0			12	12					
Link Offset(ft)	0			0	0					
Crosswalk Width(ft)	16			16	16					
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)		9	15		15	9				
Number of Detectors	2		1	2	1	1				
Detector Template	Thru		Left	Thru	Left	Right				
Leading Detector (ft)	100		20	100	20	20				
Trailing Detector (ft)	0		0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0				
Detector 1 Size(ft)	6		20	6	20	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel										
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0				
Detector 2 Position(ft)	94			94						
Detector 2 Size(ft)	6			6						
Detector 2 Type	Cl+Ex			Cl+Ex						
Detector 2 Channel										
Detector 2 Extend (s)	0.0			0.0						
Turn Type	NA		D.P+P	NA	Prot	pm+ov				
Protected Phases	8		5	5 8	7	5	1	2	3	4
Permitted Phases			8			7				
Detector Phase	8		5	5 8	7	5				
Switch Phase										
Minimum Initial (s)	29.0		4.0		4.0	4.0	24.0	34.0	4.0	4.0
Minimum Split (s)	35.0		10.0		21.0	10.0	30.0	40.0	10.0	10.0

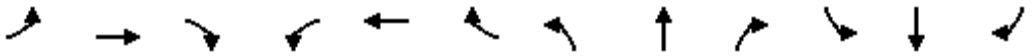


Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Total Split (s)	35.0		26.0		54.0	26.0	69.0	80.0	11.0	35.0
Total Split (%)	30.4%		22.6%		47.0%	22.6%	60%	70%	10%	30%
Maximum Green (s)	29.0		21.0		49.0	21.0	63.0	74.0	5.0	30.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		1.0		1.0	1.0	2.0	2.0	2.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0				
Total Lost Time (s)	6.0		5.0		5.0	5.0				
Lead/Lag			Lead		Lag	Lead	Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	Yes				
Vehicle Extension (s)	4.3		2.5		3.0	2.5	4.3	4.3	2.0	2.5
Minimum Gap (s)	2.2		0.2		3.0	0.2	2.2	2.2	0.2	0.2
Time Before Reduce (s)	30.0		0.0		0.0	0.0	20.0	30.0	0.0	0.0
Time To Reduce (s)	15.0		0.0		0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	Min		None		None	None	Min	C-Min	None	None
Walk Time (s)					5.0					
Flash Dont Walk (s)					11.0					
Pedestrian Calls (#/hr)					0					
Act Effct Green (s)	29.0		35.6	40.6	64.4	75.0				
Actuated g/C Ratio	0.25		0.31	0.35	0.56	0.65				
v/c Ratio	0.26		0.20	0.11	0.10	0.09				
Control Delay	18.6		53.4	50.6	1.7	0.4				
Queue Delay	0.0		0.0	0.0	0.0	0.0				
Total Delay	18.6		53.4	50.6	1.7	0.4				
LOS	B		D	D	A	A				
Approach Delay	18.6			52.0	1.1					
Approach LOS	B			D	A					
Queue Length 50th (ft)	38		58	56	2	0				
Queue Length 95th (ft)	73		m97	m96	2	0				
Internal Link Dist (ft)	717			272	970					
Turn Bay Length (ft)										
Base Capacity (vph)	915		609	907	991	1064				
Starvation Cap Reductn	0		0	0	0	0				
Spillback Cap Reductn	0		0	0	0	0				
Storage Cap Reductn	0		0	0	0	0				
Reduced v/c Ratio	0.26		0.12	0.08	0.10	0.09				

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 79 (69%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 21.6		Intersection LOS: C	
Intersection Capacity Utilization 46.3%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

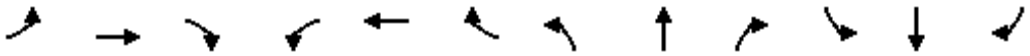
Splits and Phases: 17: Mall Drive 3 & Mall Ring Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	144	1700	13	34	2601	278	0	0	50	129	1	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		200	300		100	0		0	65		0
Storage Lanes	1		1	2		1	0		2	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.851	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1585	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1585	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			85			103			242		127	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1065			834			318			371	
Travel Time (s)		16.1			12.6			7.2			8.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	152	1789	14	36	2738	293	0	0	53	136	1	127
Shared Lane Traffic (%)												
Lane Group Flow (vph)	152	1789	14	36	2738	293	0	0	53	136	128	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1			1	1	1	
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45			45	45	45	
Trailing Detector (ft)	-6	284	-6	-6	284	-6			-6	-6	-6	
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			-6	-6	-6	
Detector 1 Size(ft)	51	51	51	51	51	51			51	51	51	
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA	Perm	Prot	NA	Perm			Over	Perm	NA	
Protected Phases	1	7		5	4				5		2	
Permitted Phases			7			4				2		
Detector Phase	1	7	7	5	4	4			5	2	2	

Lane Group	ø8	ø9	ø10	ø11
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	8	9	10	11
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	14.0	4.0	14.0	14.0			4.0	4.0	4.0	
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	20.0			10.0	10.0	10.0	
Total Split (s)	25.0	84.0	84.0	11.0	70.0	70.0			11.0	20.0	20.0	
Total Split (%)	21.7%	73.0%	73.0%	9.6%	60.9%	60.9%			9.6%	17.4%	17.4%	
Maximum Green (s)	19.0	78.0	78.0	5.0	64.0	64.0			5.0	14.0	14.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0			6.0	6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead			Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	4.3	4.3	2.5	4.3	4.3			2.5	2.0	2.0	
Minimum Gap (s)	0.2	2.2	2.2	0.2	2.2	2.2			0.2	0.2	0.2	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	34.0	34.0			0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	15.0	15.0			0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Min	C-Min			None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	14.4	81.3	81.3	5.5	70.1	70.1			5.5	12.5	12.5	
Actuated g/C Ratio	0.13	0.71	0.71	0.05	0.61	0.61			0.05	0.11	0.11	
v/c Ratio	0.68	0.50	0.01	0.22	0.88	0.29			0.15	0.71	0.45	
Control Delay	57.6	10.3	0.0	59.8	18.7	6.0			2.0	69.4	13.5	
Queue Delay	0.0	0.0	0.0	0.0	0.4	0.0			0.0	0.0	0.0	
Total Delay	57.6	10.3	0.0	59.8	19.1	6.0			2.0	69.4	13.5	
LOS	E	B	A	E	B	A			A	E	B	
Approach Delay		13.9			18.3						42.3	
Approach LOS		B			B						D	
Queue Length 50th (ft)	101	255	0	13	638	41			0	98	1	
Queue Length 95th (ft)	m160	217	m0	m12	m701	m37			0	#168	57	
Internal Link Dist (ft)		985			754			238			291	
Turn Bay Length (ft)	140		200	300		100				65		
Base Capacity (vph)	292	3616	1150	165	3099	1004			364	220	308	
Starvation Cap Reductn	0	0	0	0	80	0			0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0			0	0	0	
Storage Cap Reductn	0	0	0	0	0	0			0	0	0	
Reduced v/c Ratio	0.52	0.49	0.01	0.22	0.91	0.29			0.15	0.62	0.42	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 55 (48%), Referenced to phase 4:WBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 17.7		Intersection LOS: B	
Intersection Capacity Utilization 80.8%		ICU Level of Service D	

Lane Group	ø8	ø9	ø10	ø11
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	14.0
Minimum Split (s)	22.0	8.5	20.0	20.0
Total Split (s)	32.0	25.0	20.0	38.0
Total Split (%)	28%	22%	17%	33%
Maximum Green (s)	26.0	20.5	16.0	32.0
Yellow Time (s)	4.0	4.0	3.5	4.0
All-Red Time (s)	2.0	0.5	0.5	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	4.3
Minimum Gap (s)	3.0	3.0	3.0	2.2
Time Before Reduce (s)	0.0	0.0	0.0	34.0
Time To Reduce (s)	0.0	0.0	0.0	15.0
Recall Mode	None	None	None	Min
Walk Time (s)	5.0		5.0	
Flash Dont Walk (s)	11.0		11.0	
Pedestrian Calls (#/hr)	0		0	
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

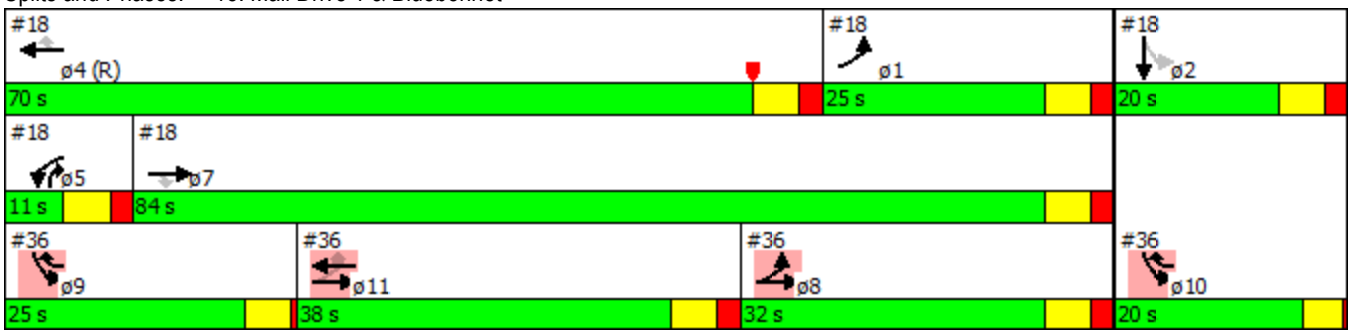
Intersection Summary

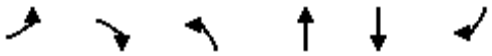
Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

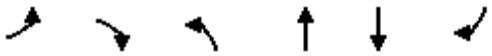
Splits and Phases: 18: Mall Drive 1 & Bluebonnet





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Lane Configurations												
Volume (vph)	35	22	151	25	150	67						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Frt		0.850				0.850						
Flt Protected	0.950		0.950									
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583						
Flt Permitted	0.950		0.654									
Satd. Flow (perm)	1770	1583	1218	1863	1863	1583						
Right Turn on Red		Yes				Yes						
Satd. Flow (RTOR)		24				73						
Link Speed (mph)	30			30	30							
Link Distance (ft)	403			1050	819							
Travel Time (s)	9.2			23.9	18.6							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	38	24	164	27	163	73						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	24	164	27	163	73						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Right	Left	Left	Left	Right						
Median Width(ft)	36			12	0							
Link Offset(ft)	0			0	0							
Crosswalk Width(ft)	16			16	16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15	9	15			9						
Number of Detectors	1	1	1	2	2	1						
Detector Template	Left	Right	Left	Thru	Thru	Right						
Leading Detector (ft)	20	20	20	100	100	20						
Trailing Detector (ft)	0	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0	0						
Detector 1 Size(ft)	20	20	20	6	6	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)				94	94							
Detector 2 Size(ft)				6	6							
Detector 2 Type				Cl+Ex	Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)				0.0	0.0							
Turn Type	Prot	Free	D.P+P	NA	NA	pm+ov						
Protected Phases	12 13		11	11 14	14	12 13	1	2	3	5	6	8
Permitted Phases		Free	14			14						
Detector Phase	12 13		11	11 14	14	12 13						
Switch Phase												
Minimum Initial (s)			4.0		3.0		3.0	3.0	3.0	21.0	3.0	3.0
Minimum Split (s)			10.0		9.0		11.0	9.0	9.0	27.0	11.0	9.0

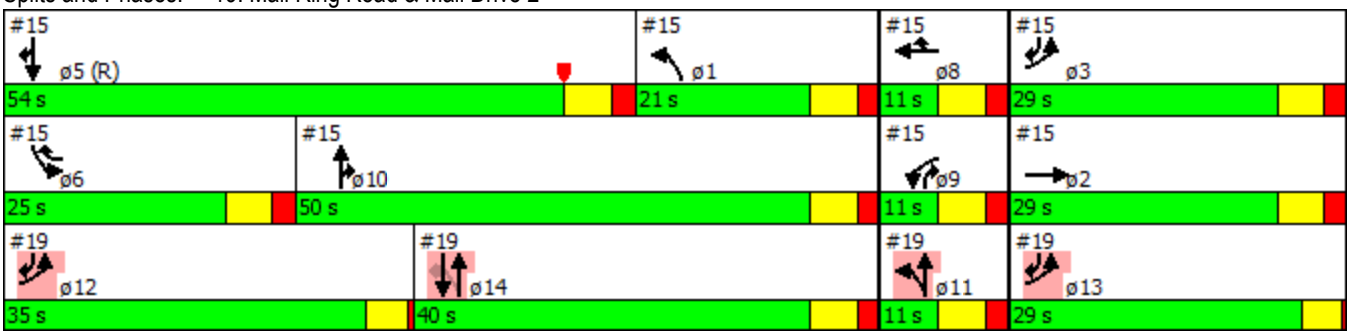
Lane Group	ø9	ø10	ø12	ø13
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	9	10	12	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	21.0	4.0	4.0
Minimum Split (s)	9.0	27.0	20.0	8.0



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Total Split (s)			11.0		40.0		21.0	29.0	29.0	54.0	25.0	11.0
Total Split (%)			9.6%		34.8%		18%	25%	25%	47%	22%	10%
Maximum Green (s)			5.0		34.0		15.0	23.0	23.0	48.0	19.0	5.0
Yellow Time (s)			4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)			2.0		2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0		0.0							
Total Lost Time (s)			6.0		6.0							
Lead/Lag					Lag		Lag			Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0		1.0		3.0	1.0	1.5	4.3	1.0	1.0
Minimum Gap (s)			3.0		0.2		0.2	0.2	0.2	2.2	0.2	0.2
Time Before Reduce (s)			0.0		0.0		0.0	0.0	0.0	28.0	0.0	0.0
Time To Reduce (s)			0.0		0.0		0.0	0.0	0.0	15.0	0.0	0.0
Recall Mode			None		None		None	None	None	C-Min	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	32.1	115.0	55.6	61.6	50.6	87.8						
Actuated g/C Ratio	0.28	1.00	0.48	0.54	0.44	0.76						
v/c Ratio	0.08	0.02	0.27	0.03	0.20	0.06						
Control Delay	67.0	0.0	29.6	22.9	15.4	0.1						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	67.0	0.0	29.6	22.9	15.4	0.1						
LOS	E	A	C	C	B	A						
Approach Delay	41.1			28.7	10.7							
Approach LOS	D			C	B							
Queue Length 50th (ft)	30	0	109	17	122	0						
Queue Length 95th (ft)	65	0	182	48	23	0						
Internal Link Dist (ft)	323			970	739							
Turn Bay Length (ft)												
Base Capacity (vph)	923	1583	612	1023	880	1326						
Starvation Cap Reductn	0	0	0	0	0	0						
Spillback Cap Reductn	0	0	0	0	0	0						
Storage Cap Reductn	0	0	0	0	0	0						
Reduced v/c Ratio	0.04	0.02	0.27	0.03	0.19	0.06						

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 63 (55%), Referenced to phase 5:SBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 21.6		Intersection LOS: C	
Intersection Capacity Utilization 32.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 19: Mall Ring Road & Mall Drive 2

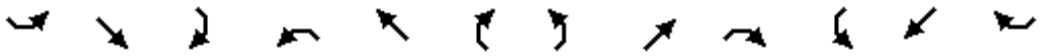


Lane Group	ø9	ø10	ø12	ø13
Total Split (s)	11.0	50.0	35.0	29.0
Total Split (%)	10%	43%	30%	25%
Maximum Green (s)	5.0	44.0	31.0	25.0
Yellow Time (s)	4.0	4.0	3.5	3.5
All-Red Time (s)	2.0	2.0	0.5	0.5
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?			Yes	
Vehicle Extension (s)	1.0	4.3	3.0	3.0
Minimum Gap (s)	0.2	0.2	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Walk Time (s)			5.0	
Flash Dont Walk (s)			11.0	
Pedestrian Calls (#/hr)			0	
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	429	1	1109	0	0	0	0	1793	85	288	1802	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		375	0		0	400		0	300		0
Storage Lanes	1		1	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.88	1.00	1.00	1.00	1.00	0.86	1.00	0.97	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950	0.953								0.950		
Satd. Flow (prot)	1681	1686	2787	0	0	0	0	6408	1583	3433	3539	0
Flt Permitted	0.950	0.953								0.950		
Satd. Flow (perm)	1681	1686	2787	0	0	0	0	6408	1583	3433	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			66						89			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1072			1024			834			410	
Travel Time (s)		24.4			23.3			12.6			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	452	1	1167	0	0	0	0	1887	89	303	1897	0
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	226	227	1167	0	0	0	0	1887	89	303	1897	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			37	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					2	1	1	2	
Detector Template												
Leading Detector (ft)	45	45	45					290	45	45	290	
Trailing Detector (ft)	-6	-6	-6					284	-6	-6	284	
Detector 1 Position(ft)	-6	-6	-6					-6	-6	-6	-6	
Detector 1 Size(ft)	51	51	51					51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	custom					NA	Perm	Prot	NA	
Protected Phases	4	4	4 14					2		1	12	
Permitted Phases									2			
Detector Phase	4	4	4 14					2	2	1	12	

Lane Group	ø5	ø6	ø8	ø14	ø16	ø18
Lane Configurations						
Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	5	6	8	14	16	18
Permitted Phases						
Detector Phase						



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)	3.0	3.0						10.0	10.0	3.0	10.0	
Minimum Split (s)	20.0	20.0						20.0	20.0	8.0	20.0	
Total Split (s)	29.0	29.0						69.0	69.0	17.0	61.0	
Total Split (%)	25.2%	25.2%						60.0%	60.0%	14.8%	53.0%	
Maximum Green (s)	24.0	24.0						64.0	64.0	12.0	56.0	
Yellow Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0	2.0	2.0	6.0	
Recall Mode	None	None						C-Max	C-Max	None	Max	
Act Effct Green (s)	24.0	24.0	49.0					64.0	64.0	12.0	56.0	
Actuated g/C Ratio	0.21	0.21	0.43					0.56	0.56	0.10	0.49	
v/c Ratio	0.65	0.65	0.95					0.53	0.10	0.85	1.10	
Control Delay	51.3	51.3	47.3					24.0	8.5	52.2	70.4	
Queue Delay	0.0	0.0	9.4					0.1	0.0	0.0	0.0	
Total Delay	51.3	51.3	56.7					24.1	8.5	52.2	70.5	
LOS	D	D	E					C	A	D	E	
Approach Delay		55.2						23.4			68.0	
Approach LOS		E						C			E	
Queue Length 50th (ft)	162	163	446					389	15	118	~853	
Queue Length 95th (ft)	253	253	#615					426	m33	m#159	#965	
Internal Link Dist (ft)		992			944			754			330	
Turn Bay Length (ft)	375		375							300		
Base Capacity (vph)	350	351	1225					3566	920	358	1723	
Starvation Cap Reductn	0	0	0					0	0	0	0	
Spillback Cap Reductn	0	0	66					308	0	0	28	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.65	0.65	1.01					0.58	0.10	0.85	1.12	

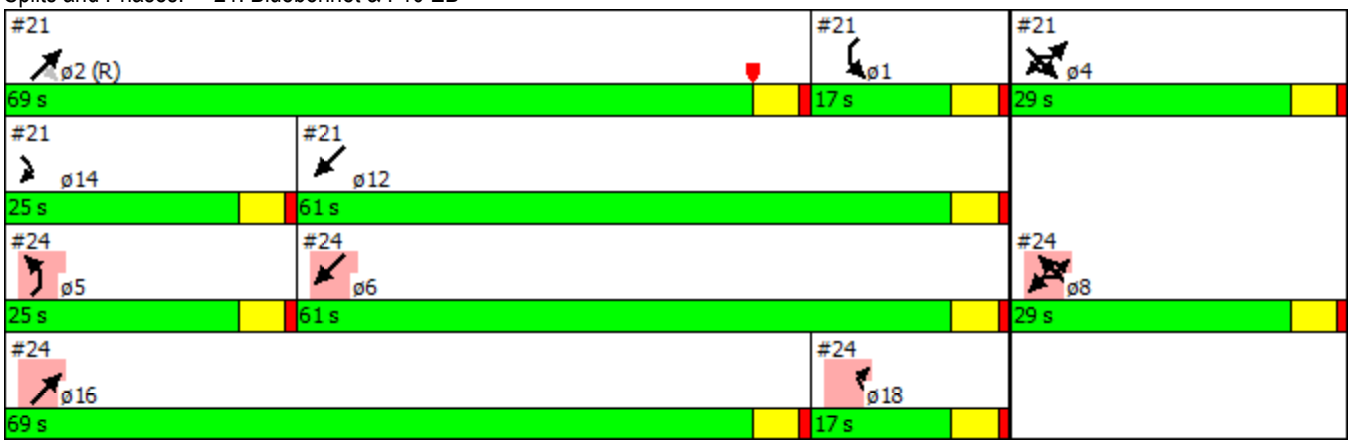
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 12 (10%), Referenced to phase 2:NET, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.12			
Intersection Signal Delay: 49.2		Intersection LOS: D	
Intersection Capacity Utilization 97.4%		ICU Level of Service F	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: Bluebonnet & I-10 EB

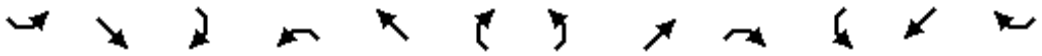


Lane Group	ø5	ø6	ø8	ø14	ø16	ø18
Switch Phase						
Minimum Initial (s)	3.0	10.0	3.0	3.0	10.0	4.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	10.0
Total Split (s)	25.0	61.0	29.0	25.0	69.0	17.0
Total Split (%)	22%	53%	25%	22%	60%	15%
Maximum Green (s)	20.0	56.0	24.0	20.0	64.0	12.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?						Yes
Vehicle Extension (s)	3.5	6.0	2.0	3.5	2.0	3.0
Recall Mode	Max	Max	None	Max	Max	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	0	0	467	4	643	441	1781	0	0	1623	265
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		525	300		0	575		575
Storage Lanes	0		0	1		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.95	1.00	1.00	0.91	0.91
Frt						0.850					0.979	
Flt Protected				0.950	0.953		0.950					
Satd. Flow (prot)	0	0	0	1681	1686	1583	3433	3539	0	0	4979	0
Flt Permitted				0.950	0.953		0.950					
Satd. Flow (perm)	0	0	0	1681	1686	1583	3433	3539	0	0	4979	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						66					38	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		894			1008			410			866	
Travel Time (s)		20.3			22.9			6.2			13.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	492	4	677	464	1875	0	0	1708	279
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	0	0	246	250	677	464	1875	0	0	1987	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			40			50	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			2	
Detector Template												
Leading Detector (ft)				45	45	45	45	290			290	
Trailing Detector (ft)				-6	-6	-6	-6	284			284	
Detector 1 Position(ft)				-6	-6	-6	-6	-6			-6	
Detector 1 Size(ft)				51	51	51	51	51			51	
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call			Call	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type				Split	NA	custom	Prot	NA			NA	
Protected Phases				8	8	8 18	5	16			6	
Permitted Phases												
Detector Phase				8	8	8 18	5	16			6	

Lane Group	ø1	ø2	ø4	ø12	ø14	ø18
Lane Configurations						
Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	1	2	4	12	14	18
Permitted Phases						
Detector Phase						



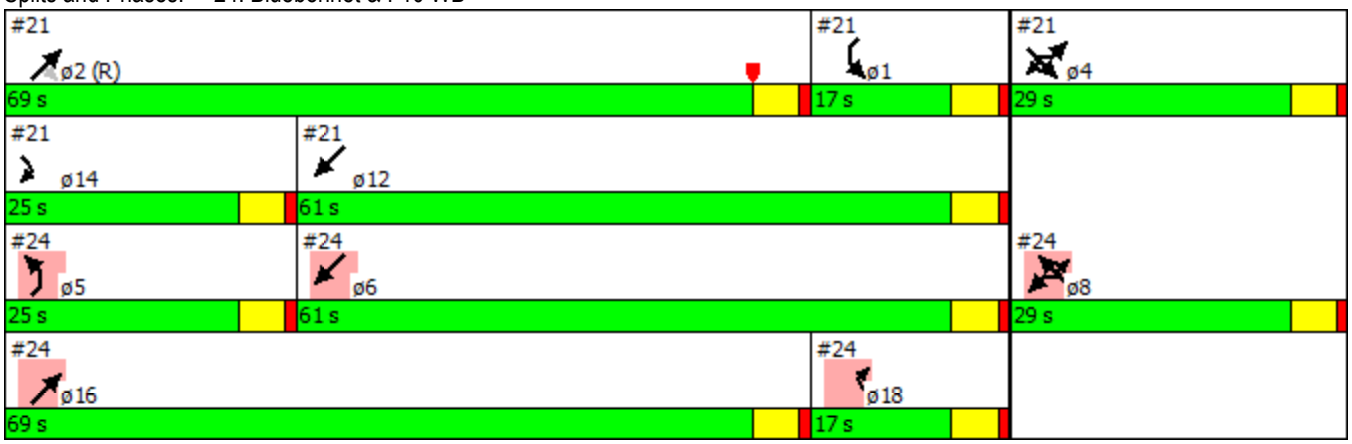
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)				3.0	3.0		3.0	10.0			10.0	
Minimum Split (s)				20.0	20.0		8.0	20.0			20.0	
Total Split (s)				29.0	29.0		25.0	69.0			61.0	
Total Split (%)				25.2%	25.2%		21.7%	60.0%			53.0%	
Maximum Green (s)				24.0	24.0		20.0	64.0			56.0	
Yellow Time (s)				4.0	4.0		4.0	4.0			4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				5.0	5.0		5.0	5.0			5.0	
Lead/Lag							Lead	Lead			Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0		3.5	2.0			6.0	
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)				24.0	24.0	41.0	20.0	64.0			56.0	
Actuated g/C Ratio				0.21	0.21	0.36	0.17	0.56			0.49	
v/c Ratio				0.70	0.71	1.12	0.78	0.95			0.81	
Control Delay				54.2	54.7	105.4	55.4	28.1			19.4	
Queue Delay				0.0	0.0	0.0	0.0	0.0			1.1	
Total Delay				54.2	54.7	105.4	55.4	28.1			20.5	
LOS				D	D	F	E	C			C	
Approach Delay					83.9			33.5			20.5	
Approach LOS					F			C			C	
Queue Length 50th (ft)				178	182	~544	128	787			501	
Queue Length 95th (ft)				#275	#285	#775	#195	#893			472	
Internal Link Dist (ft)		814			928			330			786	
Turn Bay Length (ft)						525	300					
Base Capacity (vph)				350	351	606	597	1969			2444	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			232	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.70	0.71	1.12	0.78	0.95			0.90	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 12 (10%), Referenced to phase 2:NET, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.12			
Intersection Signal Delay: 39.6		Intersection LOS: D	
Intersection Capacity Utilization 97.4%		ICU Level of Service F	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

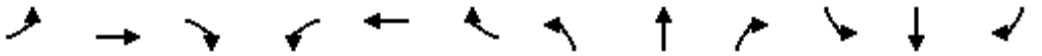
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 24: Bluebonnet & I-10 WB

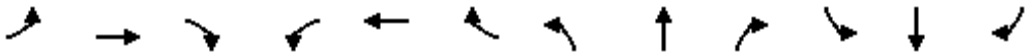


Lane Group	ø1	ø2	ø4	ø12	ø14	ø18
Switch Phase						
Minimum Initial (s)	3.0	10.0	3.0	10.0	3.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	8.0	10.0
Total Split (s)	17.0	69.0	29.0	61.0	25.0	17.0
Total Split (%)	15%	60%	25%	53%	22%	15%
Maximum Green (s)	12.0	64.0	24.0	56.0	20.0	12.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lead		Lag	Lead	Lag
Lead-Lag Optimize?						Yes
Vehicle Extension (s)	2.0	2.0	2.0	6.0	3.5	3.0
Recall Mode	None	C-Max	None	Max	Max	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	32	18	278	9	24	88	1686	650	287	1592	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		200	300		175	175		175
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.946			0.925	0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3348	0	3433	1637	1504	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.071			0.064		
Satd. Flow (perm)	1770	3348	0	3433	1637	1504	132	3539	1583	119	3539	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		19										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		475			1072			866			1049	
Travel Time (s)		10.8			24.4			13.1			15.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	46	34	19	293	9	25	93	1775	684	302	1676	57
Shared Lane Traffic (%)						35%						
Lane Group Flow (vph)	46	53	0	293	18	16	93	1775	684	302	1676	57
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		60			60			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4		3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases							2			6		
Detector Phase	7	4		3	8	8 1	5	2	2 3	1	6	6 7

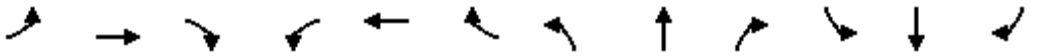


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	5.0		5.0	3.0		3.0	20.0		5.0	20.0	
Minimum Split (s)	8.9	10.9		10.9	8.9		9.6	26.6		11.6	26.6	
Total Split (s)	13.0	13.0		15.0	15.0		14.0	65.0		22.0	73.0	
Total Split (%)	11.3%	11.3%		13.0%	13.0%		12.2%	56.5%		19.1%	63.5%	
Maximum Green (s)	7.1	7.1		9.1	9.1		7.4	58.4		15.4	66.4	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	0.9	0.9		0.9	0.9		1.6	1.6		1.6	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.9	5.9		5.9	5.9		6.6	6.6		6.6	6.6	
Lead/Lag	Lead	Lead		Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		2.5	1.5		1.5	5.0		1.5	5.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	9.5	5.7		11.8	9.9	31.5	64.6	58.5	70.9	81.3	68.5	83.9
Actuated g/C Ratio	0.08	0.05		0.10	0.09	0.27	0.56	0.51	0.62	0.71	0.60	0.73
v/c Ratio	0.32	0.29		0.83	0.13	0.04	0.58	0.99	0.70	0.96	0.80	0.05
Control Delay	56.8	41.1		71.6	51.9	31.4	19.6	29.2	8.5	74.9	13.9	2.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.8	41.1		71.6	51.9	31.4	19.6	29.2	8.5	74.9	13.9	2.6
LOS	E	D		E	D	C	B	C	A	E	B	A
Approach Delay		48.4			68.6			23.3			22.6	
Approach LOS		D			E			C			C	
Queue Length 50th (ft)	33	13		112	13	9	16	535	103	158	505	3
Queue Length 95th (ft)	73	34		#214	38	28	m17	m582	m130	#364	225	m7
Internal Link Dist (ft)		395			992			786			969	
Turn Bay Length (ft)	75			200		200	300		175	175		175
Base Capacity (vph)	155	224		353	154	424	180	1799	976	316	2108	1163
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.24		0.83	0.12	0.04	0.52	0.99	0.70	0.96	0.80	0.05

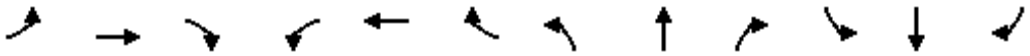
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 12 (10%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 26.5		Intersection LOS: C	
Intersection Capacity Utilization 93.0%		ICU Level of Service F	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 27: Bluebonnet & Blue Cross



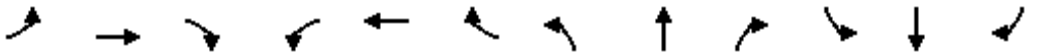
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	22	1	24	31	2	7	9	1719	26	1	1878	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		130	150		185
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.931			0.977				0.850			0.850
Flt Protected		0.977			0.962		0.950			0.950		
Satd. Flow (prot)	0	1694	0	0	1751	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.829			0.839		0.084			0.106		
Satd. Flow (perm)	0	1438	0	0	1527	0	156	3539	1583	197	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			7				28			28
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1129			1330			1049			1811	
Travel Time (s)		25.7			30.2			15.9			27.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	23	1	25	33	2	7	9	1809	27	1	1977	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	0	42	0	9	1809	27	1	1977	4
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



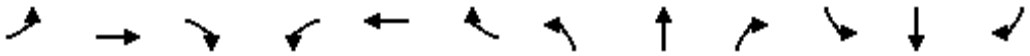
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	11.0	11.0		11.0	11.0		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	25.0	25.0		25.0	25.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	21.7%	21.7%		21.7%	21.7%		78.3%	78.3%	78.3%	78.3%	78.3%	78.3%
Maximum Green (s)	19.0	19.0		19.0	19.0		84.0	84.0	84.0	84.0	84.0	84.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		8.2			8.2		98.2	98.2	98.2	98.2	98.2	98.2
Actuated g/C Ratio		0.07			0.07		0.85	0.85	0.85	0.85	0.85	0.85
v/c Ratio		0.39			0.37		0.07	0.60	0.02	0.01	0.65	0.00
Control Delay		38.3			52.1		1.1	3.7	0.1	4.0	9.5	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		38.3			52.1		1.1	3.7	0.1	4.0	9.5	0.0
LOS		D			D		A	A	A	A	A	A
Approach Delay		38.3			52.1			3.7			9.5	
Approach LOS		D			D			A			A	
Queue Length 50th (ft)		17			25		1	138	1	0	408	0
Queue Length 95th (ft)		55			61		m0	m21	m0	m0	798	m0
Internal Link Dist (ft)		1049			1250			969			1731	
Turn Bay Length (ft)							150		130	150		185
Base Capacity (vph)		258			258		133	3022	1356	168	3022	1356
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.19			0.16		0.07	0.60	0.02	0.01	0.65	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 33 (29%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 7.6		Intersection LOS: A	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 30: Bluebonnet & Gail



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	7	76	33	2	22	74	1656	18	6	1773	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.892			0.948				0.850			0.850
Flt Protected		0.994			0.972		0.950			0.950		
Satd. Flow (prot)	0	1652	0	0	1716	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.954			0.697		0.091			0.109		
Satd. Flow (perm)	0	1585	0	0	1231	0	170	3539	1583	203	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			23				30			30
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1794			2049			1811			2409	
Travel Time (s)		40.8			46.6			27.4			36.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	13	7	80	35	2	23	78	1743	19	6	1866	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	100	0	0	60	0	78	1743	19	6	1866	27
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6

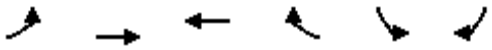


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	9.2	9.2		9.2	9.2		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	34.0	34.0		34.0	34.0		81.0	81.0	81.0	81.0	81.0	81.0
Total Split (%)	29.6%	29.6%		29.6%	29.6%		70.4%	70.4%	70.4%	70.4%	70.4%	70.4%
Maximum Green (s)	27.8	27.8		27.8	27.8		75.0	75.0	75.0	75.0	75.0	75.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.2	1.2		1.2	1.2		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.2			6.2		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		10.7			10.7		92.1	92.1	92.1	92.1	92.1	92.1
Actuated g/C Ratio		0.09			0.09		0.80	0.80	0.80	0.80	0.80	0.80
v/c Ratio		0.60			0.44		0.57	0.62	0.01	0.04	0.66	0.02
Control Delay		52.7			42.4		22.9	3.5	0.2	3.8	6.7	1.1
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		52.7			42.4		22.9	3.5	0.2	3.8	6.7	1.1
LOS		D			D		C	A	A	A	A	A
Approach Delay		52.7			42.4			4.3			6.6	
Approach LOS		D			D			A			A	
Queue Length 50th (ft)		56			26		0	2	0	1	243	0
Queue Length 95th (ft)		109			67		m#40	276	m0	5	388	6
Internal Link Dist (ft)		1714			1969			1731			2329	
Turn Bay Length (ft)							150		150	150		150
Base Capacity (vph)		399			315		136	2833	1273	162	2833	1273
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.25			0.19		0.57	0.62	0.01	0.04	0.66	0.02

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 92 (80%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 7.3		Intersection LOS: A	
Intersection Capacity Utilization 81.6%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

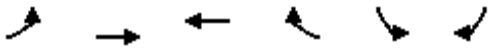
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 33: Bluebonnet & Oliphant



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Lane Configurations												
Volume (vph)	17	43	198	33	29	19						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.95						
Frt				0.850	0.941							
Flt Protected	0.950				0.971							
Satd. Flow (prot)	1770	1863	1863	1583	3302	0						
Flt Permitted	0.409				0.971							
Satd. Flow (perm)	762	1863	1863	1583	3302	0						
Right Turn on Red				Yes		Yes						
Satd. Flow (RTOR)				36	21							
Link Speed (mph)		30	30		30							
Link Distance (ft)		819	802		318							
Travel Time (s)		18.6	18.2		7.2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	18	47	215	36	32	21						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	47	215	36	53	0						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Right	Left	Right						
Median Width(ft)		12	0		36							
Link Offset(ft)		0	0		0							
Crosswalk Width(ft)		16	16		16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15			9	15	9						
Number of Detectors	1	2	2	1	1							
Detector Template	Left	Thru	Thru	Right	Left							
Leading Detector (ft)	20	100	100	20	20							
Trailing Detector (ft)	0	0	0	0	0							
Detector 1 Position(ft)	0	0	0	0	0							
Detector 1 Size(ft)	20	6	6	20	20							
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex							
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0							
Detector 2 Position(ft)		94	94									
Detector 2 Size(ft)		6	6									
Detector 2 Type		Cl+Ex	Cl+Ex									
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0									
Turn Type	D.P+P	NA	NA	pm+ov	Prot							
Protected Phases	8	8 11	11	9 10	9 10		1	2	4	5	7	9
Permitted Phases	11			11								
Detector Phase	8	8 11	11	9 10	9 10							
Switch Phase												
Minimum Initial (s)	4.0		14.0				4.0	4.0	14.0	4.0	14.0	4.0
Minimum Split (s)	22.0		20.0				10.0	10.0	20.0	10.0	20.0	8.5

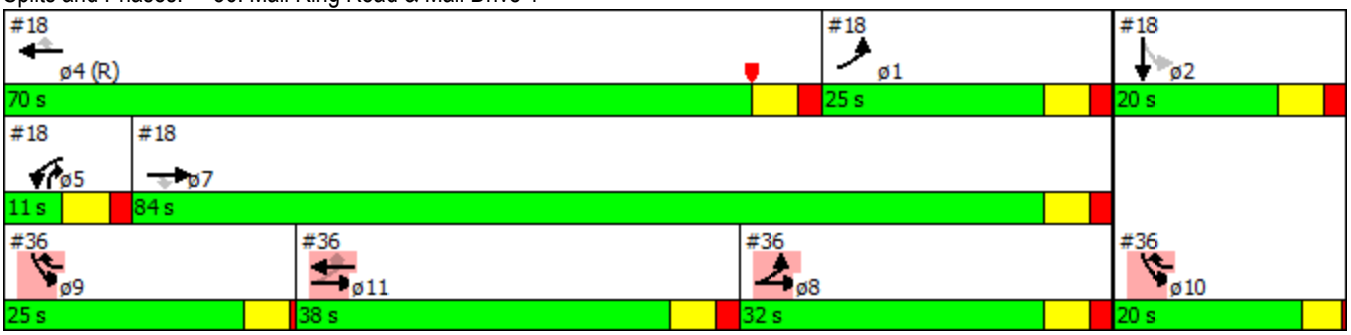
Lane Group	ø10
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	10
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	20.0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Total Split (s)	32.0		38.0				25.0	20.0	70.0	11.0	84.0	25.0
Total Split (%)	27.8%		33.0%				22%	17%	61%	10%	73%	22%
Maximum Green (s)	26.0		32.0				19.0	14.0	64.0	5.0	78.0	20.5
Yellow Time (s)	4.0		4.0				4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0				2.0	2.0	2.0	2.0	2.0	0.5
Lost Time Adjust (s)	0.0		0.0									
Total Lost Time (s)	6.0		6.0									
Lead/Lag			Lag				Lag		Lead	Lead	Lag	Lead
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0		4.3				2.5	2.0	4.3	2.5	4.3	3.0
Minimum Gap (s)	3.0		2.2				0.2	0.2	2.2	0.2	2.2	3.0
Time Before Reduce (s)	0.0		34.0				0.0	0.0	34.0	0.0	0.0	0.0
Time To Reduce (s)	0.0		15.0				0.0	0.0	15.0	0.0	0.0	0.0
Recall Mode	None		Min				None	None	C-Min	None	None	None
Walk Time (s)	5.0											
Flash Dont Walk (s)	11.0											
Pedestrian Calls (#/hr)	0											
Act Effct Green (s)	76.5	82.5	20.0	48.0	24.0							
Actuated g/C Ratio	0.67	0.72	0.17	0.42	0.21							
v/c Ratio	0.02	0.04	0.67	0.05	0.08							
Control Delay	0.6	0.7	54.0	4.9	56.4							
Queue Delay	0.0	0.0	0.0	0.0	0.0							
Total Delay	0.6	0.7	54.0	4.9	56.4							
LOS	A	A	D	A	E							
Approach Delay		0.6	46.9		56.4							
Approach LOS		A	D		E							
Queue Length 50th (ft)	0	1	151	0	14							
Queue Length 95th (ft)	1	2	216	17	34							
Internal Link Dist (ft)		739	722		238							
Turn Bay Length (ft)												
Base Capacity (vph)	1002	1334	518	679	1100							
Starvation Cap Reductn	0	0	0	0	0							
Spillback Cap Reductn	0	0	0	0	0							
Storage Cap Reductn	0	0	0	0	0							
Reduced v/c Ratio	0.02	0.04	0.42	0.05	0.05							

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 55 (48%), Referenced to phase 4:WBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 40.1		Intersection LOS: D	
Intersection Capacity Utilization 26.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 36: Mall Ring Road & Mall Drive 1

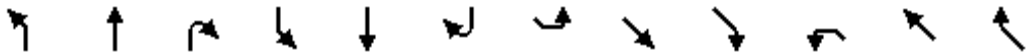


Lane Group	ø10
Total Split (s)	20.0
Total Split (%)	17%
Maximum Green (s)	16.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Minimum Gap (s)	3.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

M.34 2037 BUILD NOON – ESSEN LANE

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	236	635	88	386	957	425	521	879	135	173	1172	335
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	800		0	300		0	150		0
Storage Lanes	1		0	1		1	2		0	1		0
Taper Length (ft)	150			25			200			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Frt		0.982				0.850		0.980			0.967	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3476	0	1770	3539	1583	3433	3468	0	1770	3422	0
Flt Permitted	0.137			0.114			0.950			0.950		
Satd. Flow (perm)	255	3476	0	212	3539	1583	3433	3468	0	1770	3422	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9				265		13			27	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1877			1475			2128			1788	
Travel Time (s)		28.4			22.3			32.2			27.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	257	690	96	420	1040	462	566	955	147	188	1274	364
Shared Lane Traffic (%)												
Lane Group Flow (vph)	257	786	0	420	1040	462	566	1102	0	188	1638	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	0	1	1		1	1	
Detector Template												
Leading Detector (ft)	45	162		45	162	0	45	45		45	45	
Trailing Detector (ft)	0	156		0	156	0	0	0		0	0	
Detector 1 Position(ft)	0	-6		0	-6	0	0	0		0	0	
Detector 1 Size(ft)	45	51		45	51	50	45	45		45	45	
Detector 1 Type	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2		2						
Detector Phase	1	6		5	2	2	3	8		7	4	



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	5.0	10.0		3.0	10.0	
Minimum Split (s)	8.8	15.8		8.8	15.8	15.8	11.5	16.5		9.5	16.5	
Total Split (s)	18.0	35.0		29.0	46.0	46.0	26.0	58.8		27.2	60.0	
Total Split (%)	12.0%	23.3%		19.3%	30.7%	30.7%	17.3%	39.2%		18.1%	40.0%	
Maximum Green (s)	12.2	29.2		23.2	40.2	40.2	19.5	52.3		20.7	53.5	
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8	5.5	5.5		5.5	5.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8		5.8	5.8	5.8	6.5	6.5		6.5	6.5	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	6.0		2.0	6.0	6.0	2.0	6.0		2.0	6.0	
Minimum Gap (s)	0.2	4.0		0.2	4.0	4.0	0.2	4.0		0.2	4.0	
Time Before Reduce (s)	0.0	20.0		0.0	20.0	20.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	
Act Effct Green (s)	41.4	29.2		58.2	40.2	40.2	19.5	52.0		21.0	53.5	
Actuated g/C Ratio	0.28	0.19		0.39	0.27	0.27	0.13	0.35		0.14	0.36	
v/c Ratio	1.33	1.15		1.30	1.10	0.75	1.27	0.91		0.76	1.32	
Control Delay	213.8	135.7		193.1	109.6	29.1	188.2	58.0		82.0	189.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	213.8	135.7		193.1	109.6	29.1	188.2	58.0		82.0	189.6	
LOS	F	F		F	F	C	F	E		F	F	
Approach Delay		154.9			108.5			102.2			178.5	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~275	~471		~475	~604	185	~358	534		180	~1084	
Queue Length 95th (ft)	#460	#606		#695	#742	330	#479	#647		#296	#1224	
Internal Link Dist (ft)		1797			1395			2048			1708	
Turn Bay Length (ft)	250			800			300			150		
Base Capacity (vph)	193	683		323	948	618	446	1217		247	1237	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	1.33	1.15		1.30	1.10	0.75	1.27	0.91		0.76	1.32	

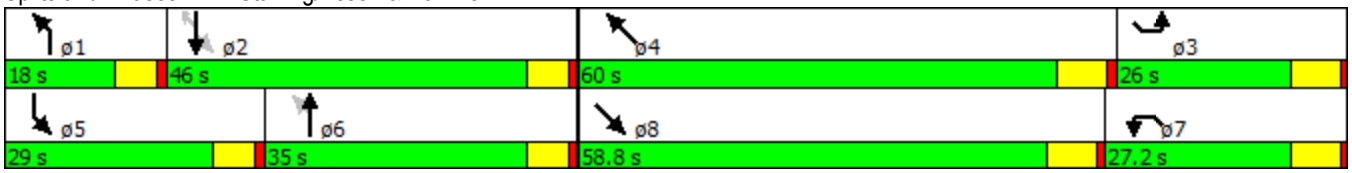
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.33			
Intersection Signal Delay: 134.2		Intersection LOS: F	
Intersection Capacity Utilization 120.2%		ICU Level of Service H	
Analysis Period (min) 15			

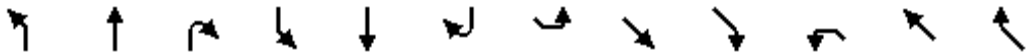
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Starring/Essen & Perkins





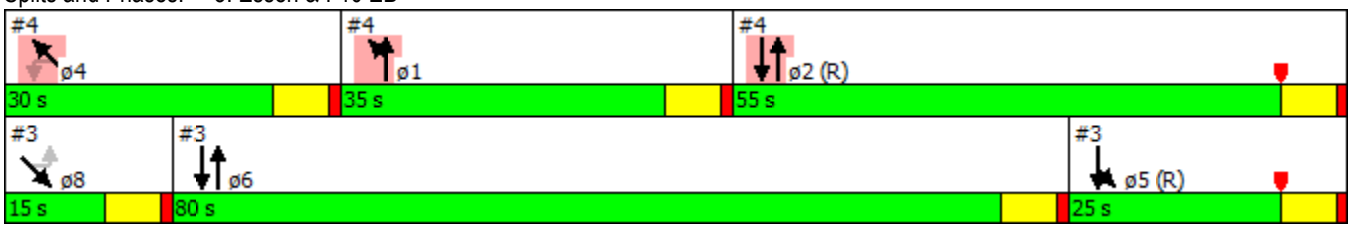
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	0	2111	526	365	1522	0	13	0	1030	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		0	0		800	0		0
Storage Lanes	1		0	2		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.86	0.86	0.97	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt		0.970							0.850			
Flt Protected				0.950			0.950	0.950				
Satd. Flow (prot)	0	6216	0	3433	3539	0	1681	1681	1583	0	0	0
Flt Permitted				0.950			0.950	0.950				
Satd. Flow (perm)	0	6216	0	3433	3539	0	1681	1681	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		98							245			
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		721			409			1012			1106	
Travel Time (s)		10.9			6.2			23.0			25.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	2295	572	397	1654	0	14	0	1120	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	0	2867	0	397	1654	0	7	7	1120	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2		1	1	0			
Detector Template							Left					
Leading Detector (ft)		162		45	162		20	45	0			
Trailing Detector (ft)		156		0	156		0	0	0			
Detector 1 Position(ft)		-6		0	-6		0	0	0			
Detector 1 Size(ft)		51		45	51		20	45	20			
Detector 1 Type		Call		Cl+Ex	Call		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Queue (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Delay (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA		Prot	NA		Perm	NA	Free			
Protected Phases		6		5	5 6			8				
Permitted Phases							8		Free			
Detector Phase		6		5	5 6		8	8				

Lane Group	ø1	ø2	ø4
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	1	2	4
Permitted Phases			
Detector Phase			

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)		10.0		3.0			3.0	3.0				
Minimum Split (s)		16.0		9.0			9.0	9.0				
Total Split (s)		80.0		25.0			15.0	15.0				
Total Split (%)		66.7%		20.8%			12.5%	12.5%				
Maximum Green (s)		74.0		19.0			9.0	9.0				
Yellow Time (s)		5.0		5.0			5.0	5.0				
All-Red Time (s)		1.0		1.0			1.0	1.0				
Lost Time Adjust (s)		0.0		0.0			0.0	0.0				
Total Lost Time (s)		6.0		6.0			6.0	6.0				
Lead/Lag		Lag					Lead	Lead				
Lead-Lag Optimize?		Yes					Yes	Yes				
Vehicle Extension (s)		4.0		2.5			2.0	2.0				
Minimum Gap (s)		2.0		0.2			0.2	0.2				
Time Before Reduce (s)		10.0		0.0			0.0	0.0				
Time To Reduce (s)		20.0		0.0			0.0	0.0				
Recall Mode		None		C-Max			Max	Max				
Act Effct Green (s)		70.2		22.8	99.0		9.0	9.0	120.0			
Actuated g/C Ratio		0.58		0.19	0.82		0.08	0.08	1.00			
v/c Ratio		0.78		0.61	0.57		0.06	0.06	0.71			
Control Delay		14.0		29.7	10.0		52.8	52.8	2.7			
Queue Delay		1.2		0.0	1.0		0.0	0.0	0.0			
Total Delay		15.1		29.7	11.0		52.8	52.8	2.7			
LOS		B		C	B		D	D	A			
Approach Delay		15.1			14.7			3.3				
Approach LOS		B			B			A				
Queue Length 50th (ft)		353		141	190		5	5	0			
Queue Length 95th (ft)		416		196	243		22	22	0			
Internal Link Dist (ft)		641			329			932			1026	
Turn Bay Length (ft)									800			
Base Capacity (vph)		3870		652	2864		126	126	1583			
Starvation Cap Reductn		700		0	865		0	0	0			
Spillback Cap Reductn		88		0	0		0	0	0			
Storage Cap Reductn		0		0	0		0	0	0			
Reduced v/c Ratio		0.90		0.61	0.83		0.06	0.06	0.71			

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 37 (31%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 12.8		Intersection LOS: B	
Intersection Capacity Utilization 68.1%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Essen & I-10 EB



Lane Group	ø1	ø2	ø4
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	35.0	55.0	30.0
Total Split (%)	29%	46%	25%
Maximum Green (s)	29.0	49.0	24.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes
Vehicle Extension (s)	2.5	4.0	4.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	None	C-Max	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	558	1566	0	0	1657	82	0	0	0	230	0	305
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	550		200	0		0	750		0
Storage Lanes	2		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.86	0.86	1.00	1.00	1.00	0.95	0.95	1.00
Frt					0.993							0.850
Flt Protected	0.950									0.950	0.950	
Satd. Flow (prot)	3433	3539	0	0	6363	0	0	0	0	1681	1681	1583
Flt Permitted	0.950									0.950	0.950	
Satd. Flow (perm)	3433	3539	0	0	6363	0	0	0	0	1681	1681	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10							251
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		409			805			936			1390	
Travel Time (s)		6.2			12.2			21.3			31.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	607	1702	0	0	1801	89	0	0	0	250	0	332
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	607	1702	0	0	1890	0	0	0	0	125	125	332
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			20			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2					1	1	0
Detector Template										Left		
Leading Detector (ft)	45	162			162					20	45	0
Trailing Detector (ft)	0	156			156					0	0	0
Detector 1 Position(ft)	0	-6			-6					0	0	0
Detector 1 Size(ft)	45	51			51					20	45	20
Detector 1 Type	Cl+Ex	Call			Call					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA			NA					Perm	NA	Free
Protected Phases	1	1 2			2						4	
Permitted Phases										4		Free
Detector Phase	1	1 2			2					4	4	

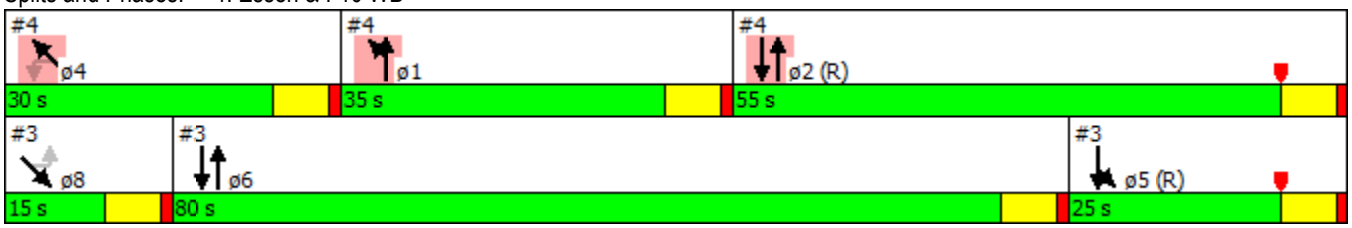
Lane Group	ø5	ø6	ø8
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	5	6	8
Permitted Phases			
Detector Phase			

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0				10.0					3.0	3.0	
Minimum Split (s)	9.0				16.0					9.0	9.0	
Total Split (s)	35.0				55.0					30.0	30.0	
Total Split (%)	29.2%				45.8%					25.0%	25.0%	
Maximum Green (s)	29.0				49.0					24.0	24.0	
Yellow Time (s)	5.0				5.0					5.0	5.0	
All-Red Time (s)	1.0				1.0					1.0	1.0	
Lost Time Adjust (s)	0.0				0.0					0.0	0.0	
Total Lost Time (s)	6.0				6.0					6.0	6.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?	Yes									Yes	Yes	
Vehicle Extension (s)	2.5				4.0					4.0	4.0	
Minimum Gap (s)	0.2				2.0					0.2	0.2	
Time Before Reduce (s)	0.0				10.0					0.0	0.0	
Time To Reduce (s)	0.0				20.0					0.0	0.0	
Recall Mode	None				C-Max					None	None	
Act Effct Green (s)	31.7	92.9			55.2					15.1	15.1	120.0
Actuated g/C Ratio	0.26	0.77			0.46					0.13	0.13	1.00
v/c Ratio	0.67	0.62			0.64					0.59	0.59	0.21
Control Delay	37.5	3.9			24.6					60.3	60.3	0.3
Queue Delay	1.1	0.6			0.0					0.0	0.0	0.0
Total Delay	38.6	4.6			24.6					60.3	60.3	0.3
LOS	D	A			C					E	E	A
Approach Delay		13.5			24.6						26.1	
Approach LOS		B			C						C	
Queue Length 50th (ft)	93	5			345					97	97	0
Queue Length 95th (ft)	213	797			286					157	157	0
Internal Link Dist (ft)		329			725			856			1310	
Turn Bay Length (ft)										750		
Base Capacity (vph)	941	2738			2933					336	336	1583
Starvation Cap Reductn	145	593			0					0	0	0
Spillback Cap Reductn	0	0			0					0	0	0
Storage Cap Reductn	0	0			0					0	0	0
Reduced v/c Ratio	0.76	0.79			0.64					0.37	0.37	0.21

Intersection Summary

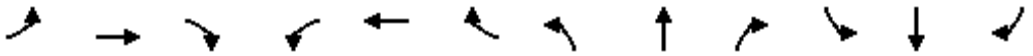
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 37 (31%), Referenced to phase 2:NBSB and 5:, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 19.4 Intersection LOS: B
Intersection Capacity Utilization 68.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 4: Essen & I-10 WB

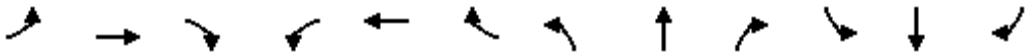


Lane Group	ø5	ø6	ø8
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	25.0	80.0	15.0
Total Split (%)	21%	67%	13%
Maximum Green (s)	19.0	74.0	9.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lead
Lead-Lag Optimize?		Yes	Yes
Vehicle Extension (s)	2.5	4.0	2.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	C-Max	None	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	109	9	94	91	0	213	54	2352	70	199	2233	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	300		0	150		200	200		0
Storage Lanes	2		0	2		1	1		1	1		0
Taper Length (ft)	25			25			100			50		
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Frt		0.863				0.850			0.850		0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	1608	0	3433	1863	1583	1770	5085	1583	1770	5050	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1608	0	3433	1863	1583	1770	5085	1583	1770	5050	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		99									11	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1086			896			1090			481	
Travel Time (s)		24.7			20.4			16.5			7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	118	10	102	99	0	232	59	2557	76	216	2427	111
Shared Lane Traffic (%)												
Lane Group Flow (vph)	118	112	0	99	0	232	59	2557	76	216	2538	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left		Right			Right			
Leading Detector (ft)	45	45		20	45	20	45	162	20	45	162	
Trailing Detector (ft)	0	0		0	0	0	0	156	0	0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6	0	0	-6	
Detector 1 Size(ft)	45	45		20	45	20	45	51	20	45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot		Free	Prot	NA	pt+ov	Prot	NA	
Protected Phases	3	8		7	4		1	6	6 7	5	2	
Permitted Phases						Free						
Detector Phase	3	8		7	4		1	6	6 7	5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	5.0		4.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	10.0	11.0		10.0	11.0		11.0	21.0		11.0	21.0	
Total Split (s)	11.0	13.0		15.0	17.0		12.0	71.0		21.0	80.0	
Total Split (%)	9.2%	10.8%		12.5%	14.2%		10.0%	59.2%		17.5%	66.7%	
Maximum Green (s)	5.0	7.0		9.0	11.0		6.0	65.0		15.0	74.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	2.0		3.0	2.0		2.0	2.5		2.0	2.0	
Minimum Gap (s)	3.0	0.2		3.0	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	20.1	5.9		8.2		120.0	6.6	66.9	81.1	15.0	77.6	
Actuated g/C Ratio	0.17	0.05		0.07		1.00	0.06	0.56	0.68	0.12	0.65	
v/c Ratio	0.21	0.65		0.42		0.15	0.61	0.90	0.07	0.98	0.78	
Control Delay	43.5	31.6		59.1		0.2	59.2	17.6	7.4	108.1	10.7	
Queue Delay	0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.1	
Total Delay	43.5	31.6		59.1		0.2	59.2	17.6	7.4	108.1	10.9	
LOS	D	C		E		A	E	B	A	F	B	
Approach Delay		37.7						18.2			18.5	
Approach LOS		D						B			B	
Queue Length 50th (ft)	41	10		38		0	45	341	22	158	109	
Queue Length 95th (ft)	67	68		67		0	m50	361	m25	#324	149	
Internal Link Dist (ft)		1006			816			1010			401	
Turn Bay Length (ft)	200			300			150		200	200		
Base Capacity (vph)	574	187		257		1583	99	2834	1080	221	3267	
Starvation Cap Reductn	0	0		0		0	0	0	0	0	128	
Spillback Cap Reductn	0	0		0		0	0	0	0	0	0	
Storage Cap Reductn	0	0		0		0	0	0	0	0	0	
Reduced v/c Ratio	0.21	0.60		0.39		0.15	0.60	0.90	0.07	0.98	0.81	

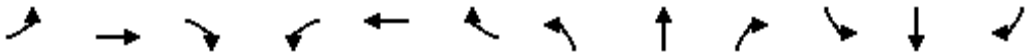
Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 87 (73%), Referenced to phase 2:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 19.1 Intersection LOS: B
Intersection Capacity Utilization 81.2% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Essen & Dijon/Dijon Ext

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	6	6	73	6	66	1	2564	111	84	2457	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	100		0	350		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			150		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.961				0.850		0.994			0.999	
Flt Protected		0.980			0.956		0.950			0.950		
Satd. Flow (prot)	0	1754	0	0	1781	1583	1770	5055	0	1770	5080	0
Flt Permitted		0.847			0.726		0.950			0.950		
Satd. Flow (perm)	0	1516	0	0	1352	1583	1770	5055	0	1770	5080	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		7						10			1	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		496			1336			481			721	
Travel Time (s)		11.3			30.4			7.3			10.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	7	7	79	7	72	1	2787	121	91	2671	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	24	0	0	86	72	1	2908	0	91	2684	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45	45	20	144		45	162	
Trailing Detector (ft)	0	0		0	0	0	0	138		0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	20	45		20	45	45	20	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								138			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases		8			4	4 5	1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4	4 5	1	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		4.0	15.0		3.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	21.0		9.0	21.0	
Total Split (s)	21.0	21.0		21.0	21.0		11.0	81.0		18.0	88.0	
Total Split (%)	17.5%	17.5%		17.5%	17.5%		9.2%	67.5%		15.0%	73.3%	
Maximum Green (s)	15.0	15.0		15.0	15.0		5.0	75.0		12.0	82.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		3.0	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)		11.4			11.4	27.3	5.4	80.7		9.9	94.4	
Actuated g/C Ratio		0.10			0.10	0.23	0.04	0.67		0.08	0.79	
v/c Ratio		0.16			0.67	0.20	0.01	0.85		0.63	0.67	
Control Delay		39.8			76.1	36.9	48.0	8.1		74.1	5.2	
Queue Delay		0.0			0.0	0.0	0.0	0.1		0.0	0.1	
Total Delay		39.8			76.1	36.9	48.0	8.2		74.1	5.3	
LOS		D			E	D	D	A		E	A	
Approach Delay		39.8			58.3			8.2			7.6	
Approach LOS		D			E			A			A	
Queue Length 50th (ft)		12			65	45	1	78		64	82	
Queue Length 95th (ft)		39			119	82	m1	106		m108	554	
Internal Link Dist (ft)		416			1256			401			641	
Turn Bay Length (ft)						100	100			350		
Base Capacity (vph)		195			169	365	80	3402		177	3994	
Starvation Cap Reductn		0			0	0	0	0		0	283	
Spillback Cap Reductn		0			0	0	0	46		0	70	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.12			0.51	0.20	0.01	0.87		0.51	0.72	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 105 (88%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 9.4		Intersection LOS: A	
Intersection Capacity Utilization 80.0%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 9: Essen & Essen Park

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	353	251	1644	227	150	1385
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		0	150	
Storage Lanes	2	1		0	1	
Taper Length (ft)	25				100	
Lane Util. Factor	0.97	1.00	0.91	0.91	1.00	0.95
Frt		0.850	0.982			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	4994	0	1770	3539
Flt Permitted	0.950				0.055	
Satd. Flow (perm)	3433	1583	4994	0	102	3539
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			31			
Link Speed (mph)	30		45			45
Link Distance (ft)	1306		805			993
Travel Time (s)	29.7		12.2			15.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	384	273	1787	247	163	1505
Shared Lane Traffic (%)						
Lane Group Flow (vph)	384	273	2034	0	163	1505
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	52		20			25
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2		1	2
Detector Template						
Leading Detector (ft)	45	45	162		45	162
Trailing Detector (ft)	0	0	156		0	256
Detector 1 Position(ft)	0	0	-6		0	-6
Detector 1 Size(ft)	45	45	51		45	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			156			256
Detector 2 Size(ft)			6			-94
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm	pt+ov	NA		pm+pt	NA
Protected Phases		5 8	6		5	2
Permitted Phases	8				2	
Detector Phase	8	5 8	6		5	2

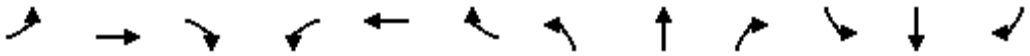
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	4.0		15.0		5.0	15.0
Minimum Split (s)	20.0		21.0		11.0	21.0
Total Split (s)	24.0		69.0		27.0	96.0
Total Split (%)	20.0%		57.5%		22.5%	80.0%
Maximum Green (s)	20.0		63.0		21.0	90.0
Yellow Time (s)	3.5		5.0		5.0	5.0
All-Red Time (s)	0.5		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.0		6.0		6.0	6.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		5.0		2.0	5.0
Minimum Gap (s)	3.0		3.0		0.2	3.0
Time Before Reduce (s)	0.0		15.0		0.0	15.0
Time To Reduce (s)	0.0		15.0		0.0	15.0
Recall Mode	None		C-Min		None	Min
Walk Time (s)	5.0					
Flash Dont Walk (s)	11.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	18.2	40.8	67.2		91.8	91.8
Actuated g/C Ratio	0.15	0.34	0.56		0.76	0.76
v/c Ratio	0.74	0.51	0.72		0.48	0.56
Control Delay	57.6	34.4	6.0		31.6	4.3
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	57.6	34.4	6.0		31.6	4.3
LOS	E	C	A		C	A
Approach Delay	47.9		6.0			7.0
Approach LOS	D		A			A
Queue Length 50th (ft)	146	161	52		67	108
Queue Length 95th (ft)	199	240	231		145	125
Internal Link Dist (ft)	1226		725			913
Turn Bay Length (ft)		100			150	
Base Capacity (vph)	579	545	2820		372	2716
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.66	0.50	0.72		0.44	0.55

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 33 (28%), Referenced to phase 6:NBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 12.7	Intersection LOS: B
Intersection Capacity Utilization 68.5%	ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 17: Essen & United Plaza South

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	847	89	106	117	88	230	86	1399	59	281	1546	591
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	425		50	280		280	150		0	550		300
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	100			200			25			100		
Lane Util. Factor	0.91	0.91	1.00	0.95	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Frt			0.850			0.850		0.994				0.850
Flt Protected	0.950	0.965		0.950	0.992		0.950			0.950		
Satd. Flow (prot)	3221	1636	1583	1681	1755	1583	1770	5055	0	1770	5085	1583
Flt Permitted	0.950	0.965		0.950	0.992		0.098			0.085		
Satd. Flow (perm)	3221	1636	1583	1681	1755	1583	183	5055	0	158	5085	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								6				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1908			1396			1335			1090	
Travel Time (s)		43.4			31.7			20.2			16.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	921	97	115	127	96	250	93	1521	64	305	1680	642
Shared Lane Traffic (%)	27%			14%								
Lane Group Flow (vph)	672	346	115	109	114	250	93	1585	0	305	1680	642
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		45			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	0	1	1	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	0	45	45	45	45	162		45	162	0
Trailing Detector (ft)	0	0	0	0	0	0	0	156		0	156	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	-6		0	-6	-6
Detector 1 Size(ft)	45	45	20	45	45	45	45	51		45	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Call
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	pm+pt	NA		pm+pt	NA	pt+ov
Protected Phases	8	8	8 1	4	4	4 5	1	6		5	2	2 8
Permitted Phases							6			2		
Detector Phase	8	8	8 1	4	4	4 5	1	6		5	2	2 8



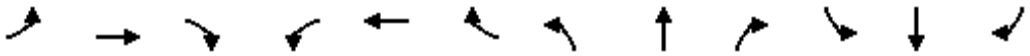
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.5	14.5		14.5	14.5		9.0	21.0		9.0	21.0	
Total Split (s)	34.0	34.0		16.0	16.0		11.0	47.0		23.0	59.0	
Total Split (%)	28.3%	28.3%		13.3%	13.3%		9.2%	39.2%		19.2%	49.2%	
Maximum Green (s)	27.5	27.5		9.5	9.5		5.0	41.0		17.0	53.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	27.5	27.5	38.5	9.5	9.5	26.0	46.0	41.0		64.0	53.0	81.0
Actuated g/C Ratio	0.23	0.23	0.32	0.08	0.08	0.22	0.38	0.34		0.53	0.44	0.68
v/c Ratio	0.91	0.93	0.23	0.82	0.83	0.73	0.68	0.92		0.98	0.75	0.60
Control Delay	62.9	77.0	31.4	95.9	95.8	39.7	47.0	27.7		83.6	15.6	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	62.9	77.0	31.4	95.9	95.8	39.7	47.0	27.7		83.6	15.6	4.8
LOS	E	E	C	F	F	D	D	C		F	B	A
Approach Delay		64.0			66.2			28.7			20.8	
Approach LOS		E			E			C			C	
Queue Length 50th (ft)	280	290	65	89	92	98	22	441		178	168	84
Queue Length 95th (ft)	#395	#487	114	#197	#203	#184	m#81	#453		m#328	273	154
Internal Link Dist (ft)		1828			1316			1255			1010	
Turn Bay Length (ft)	425		50	280		280	150			550		300
Base Capacity (vph)	738	374	490	133	138	342	136	1732		312	2246	1068
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.91	0.93	0.23	0.82	0.83	0.73	0.68	0.92		0.98	0.75	0.60

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 81 (68%), Referenced to phase 6:NBTL, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.98			
Intersection Signal Delay: 35.0		Intersection LOS: C	
Intersection Capacity Utilization 83.2%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Essen & Hennessy/Summa

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	223	137	202	73	92	75	157	1246	89	100	1494	176
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	150		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.911			0.932			0.990			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1697	0	1770	1736	0	1770	5034	0	1770	5004	0
Flt Permitted	0.540			0.231			0.950			0.950		
Satd. Flow (perm)	1006	1697	0	430	1736	0	1770	5034	0	1770	5004	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		64			36			12			21	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1062			1416			1475			1335	
Travel Time (s)		24.1			32.2			22.3			20.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	242	149	220	79	100	82	171	1354	97	109	1624	191
Shared Lane Traffic (%)												
Lane Group Flow (vph)	242	369	0	79	182	0	171	1451	0	109	1815	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template												
Leading Detector (ft)	45	45		45	45		45	162		45	162	
Trailing Detector (ft)	0	0		0	0		0	156		0	156	
Detector 1 Position(ft)	0	0		0	0		0	-6		0	-6	
Detector 1 Size(ft)	45	45		45	45		45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4		1	6		5	2	

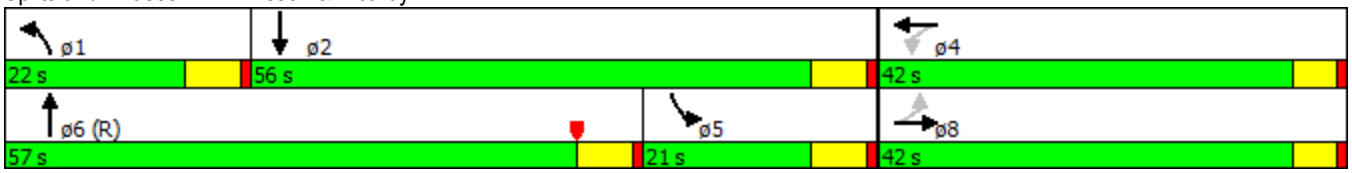


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		2.0	15.0		3.0	15.0	
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	21.0		9.0	21.0	
Total Split (s)	42.0	42.0		42.0	42.0		22.0	57.0		21.0	56.0	
Total Split (%)	35.0%	35.0%		35.0%	35.0%		18.3%	47.5%		17.5%	46.7%	
Maximum Green (s)	37.0	37.0		37.0	37.0		16.0	51.0		15.0	50.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Act Effct Green (s)	31.2	31.2		31.2	31.2		14.6	56.8		15.0	57.2	
Actuated g/C Ratio	0.26	0.26		0.26	0.26		0.12	0.47		0.12	0.48	
v/c Ratio	0.93	0.76		0.71	0.38		0.80	0.61		0.49	0.76	
Control Delay	82.5	43.2		72.1	30.0		76.8	25.4		36.2	12.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	82.5	43.2		72.1	30.0		76.8	25.4		36.2	12.6	
LOS	F	D		E	C		E	C		D	B	
Approach Delay		58.8			42.8			30.8			13.9	
Approach LOS		E			D			C			B	
Queue Length 50th (ft)	179	216		54	90		129	303		72	112	
Queue Length 95th (ft)	#304	315		#124	149		#229	378		m101	136	
Internal Link Dist (ft)		982			1336			1395			1255	
Turn Bay Length (ft)	225			150			150			150		
Base Capacity (vph)	310	567		132	560		236	2389		221	2397	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.78	0.65		0.60	0.33		0.72	0.61		0.49	0.76	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 71 (59%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.93			
Intersection Signal Delay: 28.0		Intersection LOS: C	
Intersection Capacity Utilization 83.5%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Essen & Picardy



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	98	191	1784	94	179	1231
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	125		125	125	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.88	0.91	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2787	5085	1583	1770	3539
Flt Permitted	0.950				0.068	
Satd. Flow (perm)	1770	2787	5085	1583	127	3539
Right Turn on Red		Yes		No		
Satd. Flow (RTOR)		208				
Link Speed (mph)	30		45			45
Link Distance (ft)	1179		993			571
Travel Time (s)	26.8		15.0			8.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	107	208	1939	102	195	1338
Shared Lane Traffic (%)						
Lane Group Flow (vph)	107	208	1939	102	195	1338
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	42		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template						
Leading Detector (ft)	45	45	162	45	45	162
Trailing Detector (ft)	0	0	156	0	0	284
Detector 1 Position(ft)	0	0	-6	0	0	-6
Detector 1 Size(ft)	45	45	51	45	45	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			156			284
Detector 2 Size(ft)			6			-122
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	pt+ov	pm+pt	NA
Protected Phases	4		6	6 4	5	2
Permitted Phases		4			2	
Detector Phase	4	4	6	6 4	5	2

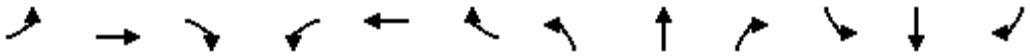
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	5.0	5.0	15.0		3.0	15.0
Minimum Split (s)	11.0	11.0	21.0		9.0	21.0
Total Split (s)	23.0	23.0	71.0		26.0	97.0
Total Split (%)	19.2%	19.2%	59.2%		21.7%	80.8%
Maximum Green (s)	17.0	17.0	65.0		20.0	91.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0
Recall Mode	None	None	C-Min		None	Min
Act Effct Green (s)	11.6	11.6	77.9	95.5	96.4	96.4
Actuated g/C Ratio	0.10	0.10	0.65	0.80	0.80	0.80
v/c Ratio	0.63	0.46	0.59	0.08	0.72	0.47
Control Delay	67.5	9.6	5.4	1.4	47.0	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	67.5	9.6	5.4	1.4	47.0	2.0
LOS	E	A	A	A	D	A
Approach Delay	29.3		5.2			7.7
Approach LOS	C		A			A
Queue Length 50th (ft)	81	0	78	2	76	44
Queue Length 95th (ft)	136	38	142	m12	171	37
Internal Link Dist (ft)	1099		913			491
Turn Bay Length (ft)		125		125	125	
Base Capacity (vph)	250	573	3302	1331	375	2842
Starvation Cap Reductn	0	0	0	0	0	258
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.36	0.59	0.08	0.52	0.52

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 37 (31%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 8.1		Intersection LOS: A	
Intersection Capacity Utilization 64.8%		ICU Level of Service C	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 28: Essen & United Plaza North

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	1	25	85	3	162	10	1902	62	182	1301	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		100	175		0	150		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	0.95
Frt		0.855				0.850		0.995			0.995	
Flt Protected	0.950				0.954		0.950			0.950		
Satd. Flow (prot)	1770	1593	0	0	1777	1583	1770	5060	0	1770	3522	0
Flt Permitted	0.695				0.712		0.177			0.053		
Satd. Flow (perm)	1295	1593	0	0	1326	1583	330	5060	0	99	3522	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		27						6			5	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		757			843			571			472	
Travel Time (s)		17.2			19.2			8.7			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	55	1	27	92	3	176	11	2067	67	198	1414	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	55	28	0	0	95	176	11	2134	0	198	1461	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	4	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	162		45	390	
Trailing Detector (ft)	0	0		0	0	0	0	156		0	156	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	45	45		20	45	45	45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Detector 3 Position(ft)											308	
Detector 3 Size(ft)											6	
Detector 3 Type											Cl+Ex	
Detector 3 Channel												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 3 Extend (s)											0.0	
Detector 4 Position(ft)											384	
Detector 4 Size(ft)											6	
Detector 4 Type											Cl+Ex	
Detector 4 Channel												
Detector 4 Extend (s)											0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		8		7	4	4 5	1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4	4 5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	31.0		11.0	31.0	
Total Split (s)	18.0	18.0		11.0	29.0		11.0	66.0		25.0	80.0	
Total Split (%)	15.0%	15.0%		9.2%	24.2%		9.2%	55.0%		20.8%	66.7%	
Maximum Green (s)	12.0	12.0		5.0	23.0		5.0	60.0		19.0	74.0	
Yellow Time (s)	4.5	4.5		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		2.0	2.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lead		Lag			Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	3.0		0.2	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	14.4	14.4			14.4	32.1	76.4	75.9		91.4	91.4	
Actuated g/C Ratio	0.12	0.12			0.12	0.27	0.64	0.63		0.76	0.76	
v/c Ratio	0.35	0.13			0.60	0.42	0.04	0.67		0.83	0.54	
Control Delay	53.5	17.3			65.0	37.4	4.1	4.9		67.8	3.6	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.1	
Total Delay	53.5	17.3			65.0	37.4	4.1	4.9		67.8	3.7	
LOS	D	B			E	D	A	A		E	A	
Approach Delay		41.3			47.1			4.9			11.4	
Approach LOS		D			D			A			B	
Queue Length 50th (ft)	40	1			71	114	1	73		113	84	
Queue Length 95th (ft)	79	28			123	152	m1	63		173	103	
Internal Link Dist (ft)		677			763			491			392	
Turn Bay Length (ft)	75					100	175			150		
Base Capacity (vph)	161	222			254	513	270	3203		341	2684	
Starvation Cap Reductn	0	0			0	0	0	0		0	186	
Spillback Cap Reductn	0	0			0	0	0	0		0	0	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.34	0.13			0.37	0.34	0.04	0.67		0.58	0.58	

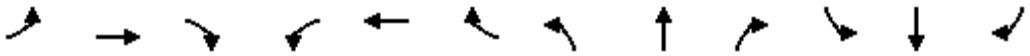
Intersection Summary	
Area Type:	Other
Cycle Length: 120	

Actuated Cycle Length: 120	
Offset: 32 (27%), Referenced to phase 2:SBTL, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 11.0	Intersection LOS: B
Intersection Capacity Utilization 74.7%	ICU Level of Service D
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 29: Essen & Sholar/Archives

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	311	0	85	0	0	0	0	1323	792	0	1441	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.934							0.850			
Flt Protected	0.950	0.973										
Satd. Flow (prot)	1681	1608	0	0	0	0	0	3539	1583	0	3539	0
Flt Permitted	0.950	0.973										
Satd. Flow (perm)	1681	1608	0	0	0	0	0	3539	1583	0	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36							375			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		995			508			472			1384	
Travel Time (s)		22.6			11.5			7.2			21.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	338	0	92	0	0	0	0	1438	861	0	1566	0
Shared Lane Traffic (%)	35%											
Lane Group Flow (vph)	220	210	0	0	0	0	0	1438	861	0	1566	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1						2	1		2	
Detector Template												
Leading Detector (ft)	45	45						162	45		162	
Trailing Detector (ft)	0	0						156	0		156	
Detector 1 Position(ft)	0	0						-6	0		-6	
Detector 1 Size(ft)	45	45						51	45		51	
Detector 1 Type	Cl+Ex	Cl+Ex						Call	Cl+Ex		Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0		0.0	
Detector 2 Position(ft)								156			156	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA						NA	Free		NA	
Protected Phases		8						6			2	
Permitted Phases	8								Free			
Detector Phase	8	8						6			2	

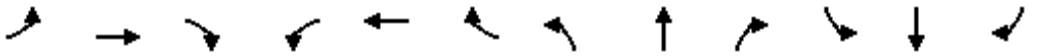


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	10.0	10.0						25.0			25.0	
Minimum Split (s)	17.0	17.0						32.0			32.0	
Total Split (s)	36.0	36.0						84.0			84.0	
Total Split (%)	30.0%	30.0%						70.0%			70.0%	
Maximum Green (s)	29.0	29.0						77.0			77.0	
Yellow Time (s)	5.0	5.0						5.0			5.0	
All-Red Time (s)	2.0	2.0						2.0			2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	7.0	7.0						7.0			7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5						5.0			5.0	
Minimum Gap (s)	0.2	0.2						3.0			3.0	
Time Before Reduce (s)	0.0	0.0						15.0			15.0	
Time To Reduce (s)	0.0	0.0						15.0			15.0	
Recall Mode	None	None						C-Max			Max	
Act Effct Green (s)	20.5	20.5						85.5	120.0		85.5	
Actuated g/C Ratio	0.17	0.17						0.71	1.00		0.71	
v/c Ratio	0.77	0.69						0.57	0.54		0.62	
Control Delay	64.5	49.9						5.4	2.6		11.0	
Queue Delay	0.0	0.0						0.1	0.0		0.0	
Total Delay	64.5	49.9						5.4	2.6		11.0	
LOS	E	D						A	A		B	
Approach Delay		57.4						4.4			11.0	
Approach LOS		E						A			B	
Queue Length 50th (ft)	172	134						64	1		292	
Queue Length 95th (ft)	248	209						185	649		443	
Internal Link Dist (ft)		915			428			392			1304	
Turn Bay Length (ft)	400											
Base Capacity (vph)	406	415						2522	1583		2522	
Starvation Cap Reductn	0	0						195	0		0	
Spillback Cap Reductn	0	0						0	0		0	
Storage Cap Reductn	0	0						0	0		0	
Reduced v/c Ratio	0.54	0.51						0.62	0.54		0.62	

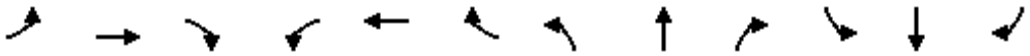
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 37 (31%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 12.1		Intersection LOS: B	
Intersection Capacity Utilization 62.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 32: Essen & I-12 EB

M.35 2037 BUILD NOON – BLUEBONNET BOULEVARD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	217	899	382	511	894	307	341	1029	262	408	707	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		250	325		375	350		0	250		150
Storage Lanes	2		1	2		1	2		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Frt			0.850			0.850		0.970				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3433	0	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3433	0	3433	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								23				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		2445			3864			2201			709	
Travel Time (s)		37.0			58.5			33.3			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	228	946	402	538	941	323	359	1083	276	429	744	179
Shared Lane Traffic (%)												
Lane Group Flow (vph)	228	946	402	538	941	323	359	1359	0	429	744	179
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45	45	290		45	290	45
Trailing Detector (ft)	-6	284	-6	-6	284	-6	-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6	-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51	51	51		51	51	51
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		284			284			284			284	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Extend			Extend			Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8		7	4	4 5
Permitted Phases												
Detector Phase	5	2	2 3	1	6	6 7	3	8		7	4	4 5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	10.0		4.0	10.0	
Minimum Split (s)	11.0	34.5		11.0	37.5		11.0	41.0		11.0	41.0	
Total Split (s)	17.0	42.0		27.0	52.0		29.0	59.0		22.0	52.0	
Total Split (%)	11.3%	28.0%		18.0%	34.7%		19.3%	39.3%		14.7%	34.7%	
Maximum Green (s)	10.0	35.5		20.0	45.5		22.0	52.0		15.0	45.0	
Yellow Time (s)	5.0	4.5		5.0	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	6.5		7.0	6.5		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.3		3.0	4.3		3.0	3.9		3.0	3.9	
Minimum Gap (s)	0.2	2.2		0.2	2.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	15.0		0.0	15.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0		0.0	10.0		0.0	10.0	
Recall Mode	None	Min		None	Min		None	Min		None	C-Min	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		23.0			26.0			29.0			29.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	10.0	35.5	67.6	20.0	45.5	67.5	31.6	52.0		15.0	35.4	45.4
Actuated g/C Ratio	0.07	0.24	0.45	0.13	0.30	0.45	0.21	0.35		0.10	0.24	0.30
v/c Ratio	1.00	1.13	0.56	1.18	0.88	0.45	0.50	1.13		1.25	0.89	0.37
Control Delay	128.0	124.2	20.8	154.8	59.9	31.1	56.3	112.2		193.8	67.7	23.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	128.0	124.2	20.8	154.8	59.9	31.1	56.3	112.3		193.8	67.7	23.1
LOS	F	F	C	F	E	C	E	F		F	E	C
Approach Delay		98.4			83.1			100.6			101.8	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	117	~562	162	~323	461	216	161	~801		~262	278	73
Queue Length 95th (ft)	#209	#700	264	#443	551	305	229	#943		#390	320	123
Internal Link Dist (ft)		2365			3784			2121			629	
Turn Bay Length (ft)	440		250	325		375	350			250		150
Base Capacity (vph)	228	837	713	457	1073	712	723	1205		343	1061	580
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	12		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	1.00	1.13	0.56	1.18	0.88	0.45	0.50	1.14		1.25	0.70	0.31

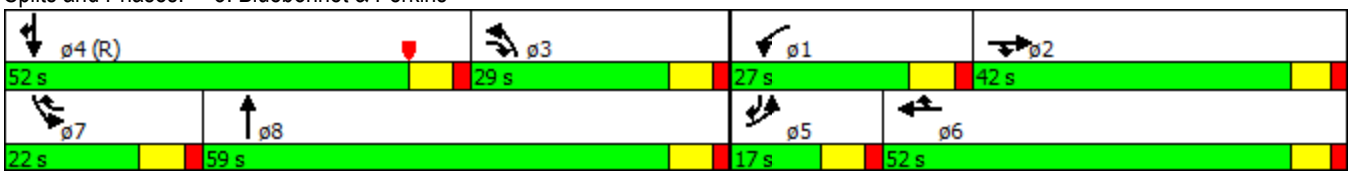
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 52 (35%), Referenced to phase 4:SBT, Start of Yellow			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.25			
Intersection Signal Delay: 95.4		Intersection LOS: F	
Intersection Capacity Utilization 110.8%		ICU Level of Service H	

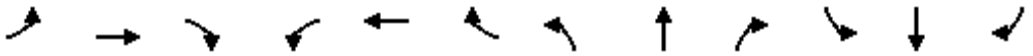
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

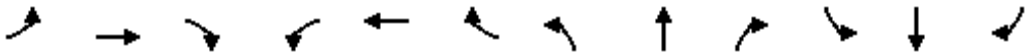
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Bluebonnet & Perkins





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	162	22	53	78	13	201	43	1450	62	378	1155	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		125	160		160	175		0
Storage Lanes	1		0	0		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.894				0.850			0.850		0.986	
Flt Protected	0.950				0.959		0.950			0.950		
Satd. Flow (prot)	1770	1665	0	0	1786	1583	1770	3539	1583	3433	3490	0
Flt Permitted	0.695				0.558		0.950			0.950		
Satd. Flow (perm)	1295	1665	0	0	1039	1583	1770	3539	1583	3433	3490	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		56									12	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		511			1048			709			2556	
Travel Time (s)		11.6			23.8			10.7			38.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	171	23	56	82	14	212	45	1526	65	398	1216	121
Shared Lane Traffic (%)												
Lane Group Flow (vph)	171	79	0	0	96	212	45	1526	65	398	1337	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290	45	45	290	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284	-6	-6	284	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6	-6	-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	
Protected Phases		8		7	4	4 5	1	6	6 7	5	2	
Permitted Phases	8			4								
Detector Phase	8	8		7	4	4 5	1	6	6 7	5	2	



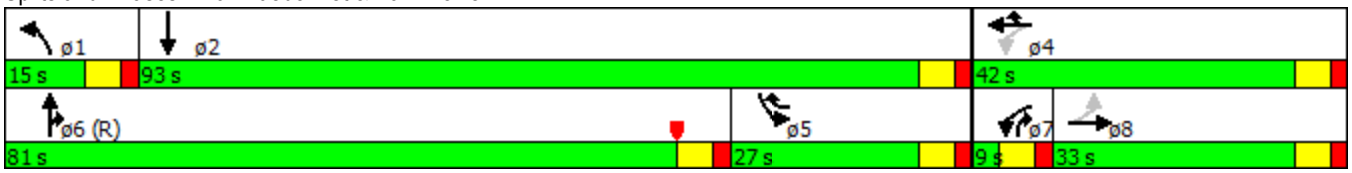
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		3.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	11.0	11.0		9.0	11.0		9.0	21.0		9.0	21.0	
Total Split (s)	33.0	33.0		9.0	42.0		15.0	81.0		27.0	93.0	
Total Split (%)	22.0%	22.0%		6.0%	28.0%		10.0%	54.0%		18.0%	62.0%	
Maximum Green (s)	27.0	27.0		3.0	36.0		9.0	75.0		21.0	87.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		1.5	2.0		1.5	4.0		1.5	4.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	23.1	23.1			31.2	57.2	7.3	80.8	84.9	20.1	95.6	
Actuated g/C Ratio	0.15	0.15			0.21	0.38	0.05	0.54	0.57	0.13	0.64	
v/c Ratio	0.86	0.26			0.41	0.35	0.52	0.80	0.07	0.87	0.60	
Control Delay	96.8	21.8			54.3	33.6	74.7	38.1	11.2	82.9	19.2	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.9	0.0	0.0	0.0	
Total Delay	96.8	21.8			54.3	33.6	74.7	38.9	11.2	82.9	19.2	
LOS	F	C			D	C	E	D	B	F	B	
Approach Delay		73.1			40.1			38.8			33.8	
Approach LOS		E			D			D			C	
Queue Length 50th (ft)	163	19			76	136	47	566	23	196	440	
Queue Length 95th (ft)	#267	68			130	205	m51	m431	m21	#274	523	
Internal Link Dist (ft)		431			968			629			2476	
Turn Bay Length (ft)	100					125	160		160	175		
Base Capacity (vph)	233	345			266	642	106	1912	899	485	2228	
Starvation Cap Reductn	0	0			0	0	0	154	0	0	0	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.73	0.23			0.36	0.33	0.42	0.87	0.07	0.82	0.60	

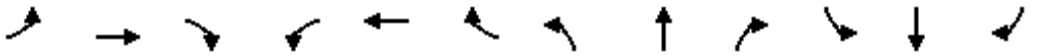
Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 75 (50%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 38.9 Intersection LOS: D
Intersection Capacity Utilization 81.5% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

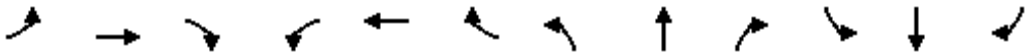
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Bluebonnet & Park Rowe





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	200	15	95	25	7	9	70	1733	11	22	1528	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	475		475	50		0	425		0	130		130
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.916			0.999				0.850
Flt Protected	0.950	0.959		0.950			0.950			0.950		
Satd. Flow (prot)	1681	1697	1583	1770	1706	0	1770	3536	0	1770	3539	1583
Flt Permitted	0.950	0.959		0.950			0.950			0.950		
Satd. Flow (perm)	1681	1697	1583	1770	1706	0	1770	3536	0	1770	3539	1583
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)					9			1				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1004			740			2556			469	
Travel Time (s)		22.8			16.8			38.7			7.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	211	16	100	26	7	9	74	1824	12	23	1608	182
Shared Lane Traffic (%)	46%											
Lane Group Flow (vph)	114	113	100	26	16	0	74	1836	0	23	1608	182
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	45	45	45		45	290		45	290	45
Trailing Detector (ft)	-6	-6	-6	-6	-6		-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6		-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51		51	51		51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA		Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4		1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4		1	6		5	2	2 8

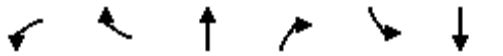


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.5	25.5		8.5	25.5	
Total Split (s)	14.0	14.0		12.0	12.0		13.0	81.0		13.0	81.0	
Total Split (%)	11.7%	11.7%		10.0%	10.0%		10.8%	67.5%		10.8%	67.5%	
Maximum Green (s)	9.0	9.0		7.0	7.0		7.5	75.5		7.5	75.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	6.0		3.0	6.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	11.1	11.1	24.4	7.4	7.4		7.8	83.4		6.8	77.9	90.7
Actuated g/C Ratio	0.09	0.09	0.20	0.06	0.06		0.06	0.70		0.06	0.65	0.76
v/c Ratio	0.73	0.72	0.31	0.24	0.14		0.65	0.75		0.23	0.70	0.15
Control Delay	80.5	79.0	44.7	59.6	38.5		80.7	16.1		54.8	11.3	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.1	0.0
Total Delay	80.5	79.0	44.7	59.6	38.5		80.7	16.1		54.8	11.5	2.1
LOS	F	E	D	E	D		F	B		D	B	A
Approach Delay		69.1			51.5			18.6			11.1	
Approach LOS		E			D			B			B	
Queue Length 50th (ft)	93	92	68	20	5		57	537		19	227	18
Queue Length 95th (ft)	#213	#210	123	50	29		#132	648		m44	256	26
Internal Link Dist (ft)		924			660			2476			389	
Turn Bay Length (ft)	475		475	50			425			130		130
Base Capacity (vph)	156	157	323	109	113		115	2457		110	2297	1197
Starvation Cap Reductn	0	0	0	0	0		0	0		0	92	0
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.73	0.72	0.31	0.24	0.14		0.64	0.75		0.21	0.73	0.15

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 111 (93%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 19.6 Intersection LOS: B
Intersection Capacity Utilization 77.5% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Bluebonnet & Anselmo



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Lane Configurations									
Volume (vph)	355	142	1445	497	91	1367			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	0	100		150	350				
Storage Lanes	2	1		1	1				
Taper Length (ft)	25				25				
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.91			
Frt		0.850		0.850					
Flt Protected	0.950				0.950				
Satd. Flow (prot)	3433	1583	3539	1583	1770	5085			
Flt Permitted	0.950				0.950				
Satd. Flow (perm)	3433	1583	3539	1583	1770	5085			
Right Turn on Red		No		No					
Satd. Flow (RTOR)									
Link Speed (mph)	30		45			45			
Link Distance (ft)	352		390			974			
Travel Time (s)	8.0		5.9			14.8			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95			
Adj. Flow (vph)	374	149	1521	523	96	1439			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	374	149	1521	523	96	1439			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Right	Left	Left			
Median Width(ft)	35		20			20			
Link Offset(ft)	0		0			0			
Crosswalk Width(ft)	16		16			16			
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Turning Speed (mph)	15	9		9	15				
Number of Detectors	1	1	2	1	1	2			
Detector Template									
Leading Detector (ft)	45	45	290	45	45	290			
Trailing Detector (ft)	-6	-6	284	-6	-6	284			
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			
Detector 1 Size(ft)	51	51	51	51	51	51			
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call			
Detector 1 Channel									
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)			284			284			
Detector 2 Size(ft)			6			6			
Detector 2 Type			Extend			Extend			
Detector 2 Channel									
Detector 2 Extend (s)			0.0			0.0			
Turn Type	Prot	pt+ov	NA	pt+ov	Prot	NA			
Protected Phases	4	4 3	1	1 4	3	2	5	7	8
Permitted Phases									
Detector Phase	4	4 3	1	1 4	3	2			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Switch Phase									
Minimum Initial (s)	4.0		24.0		4.0	34.0	4.0	4.0	29.0
Minimum Split (s)	10.0		30.0		10.0	40.0	10.0	22.0	35.0
Total Split (s)	35.0		70.0		15.0	85.0	58.0	27.0	35.0
Total Split (%)	29.2%		58.3%		12.5%	70.8%	48%	23%	29%
Maximum Green (s)	30.0		64.0		9.0	79.0	52.0	21.0	29.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0			
Total Lost Time (s)	5.0		6.0		6.0	6.0			
Lead/Lag			Lag		Lead		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	
Vehicle Extension (s)	2.5		4.3		2.0	4.3	2.5	3.0	4.3
Minimum Gap (s)	0.2		2.2		0.2	2.2	0.2	3.0	2.2
Time Before Reduce (s)	0.0		20.0		0.0	30.0	0.0	0.0	30.0
Time To Reduce (s)	0.0		15.0		0.0	15.0	0.0	0.0	15.0
Recall Mode	None		Min		None	C-Min	Max	None	Min
Walk Time (s)								5.0	
Flash Dont Walk (s)								11.0	
Pedestrian Calls (#/hr)								0	
Act Effct Green (s)	30.0	44.8	64.2	99.2	8.8	79.0			
Actuated g/C Ratio	0.25	0.37	0.54	0.83	0.07	0.66			
v/c Ratio	0.44	0.25	0.80	0.40	0.74	0.43			
Control Delay	18.1	10.8	16.4	2.1	97.2	2.4			
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay	18.1	10.8	16.4	2.1	97.2	2.4			
LOS	B	B	B	A	F	A			
Approach Delay	16.0		12.7			8.3			
Approach LOS	B		B			A			
Queue Length 50th (ft)	66	41	197	41	79	56			
Queue Length 95th (ft)	98	66	344	55	m#139	35			
Internal Link Dist (ft)	272		310			894			
Turn Bay Length (ft)		100		150	350				
Base Capacity (vph)	858	595	1899	1279	135	3347			
Starvation Cap Reductn	0	0	0	0	0	0			
Spillback Cap Reductn	0	0	0	0	0	0			
Storage Cap Reductn	0	0	0	0	0	0			
Reduced v/c Ratio	0.44	0.25	0.80	0.41	0.71	0.43			

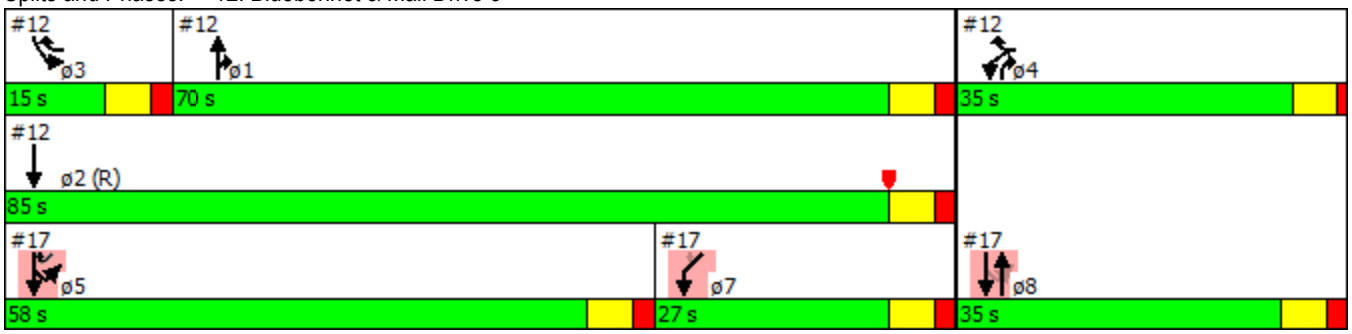
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 108 (90%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 11.5		Intersection LOS: B	
Intersection Capacity Utilization 69.3%		ICU Level of Service C	

Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

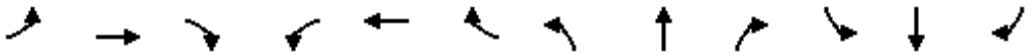
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 12: Bluebonnet & Mall Drive 3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	387	141	190	80	154	63	201	1334	53	245	1189	405
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	140		140	200		200	200		160
Storage Lanes	2		0	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		0.914				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3235	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3235	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		200										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1050			403			974			1065	
Travel Time (s)		23.9			9.2			14.8			16.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	407	148	200	84	162	66	212	1404	56	258	1252	426
Shared Lane Traffic (%)												
Lane Group Flow (vph)	407	348	0	84	162	66	212	1404	56	258	1252	426
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			36			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pt+ov
Protected Phases	3	2		9	8	8 6	1	10	10 9	6	5	5 3
Permitted Phases												
Detector Phase	3	2		9	8	8 6	1	10	10 9	6	5	5 3

Lane Group	ø11	ø12	ø13	ø14
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	11	12	13	14
Permitted Phases				
Detector Phase				

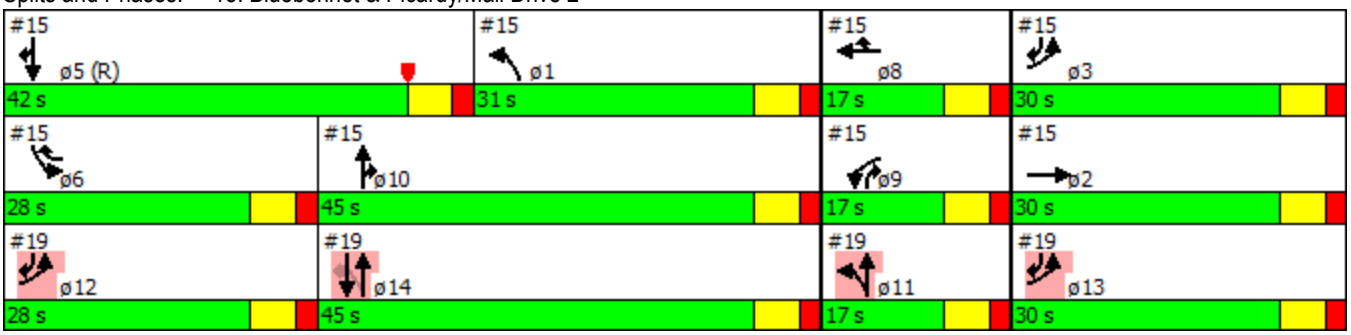


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	21.0		3.0	21.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		11.0	27.0		11.0	27.0	
Total Split (s)	30.0	30.0		17.0	17.0		31.0	45.0		28.0	42.0	
Total Split (%)	25.0%	25.0%		14.2%	14.2%		25.8%	37.5%		23.3%	35.0%	
Maximum Green (s)	24.0	24.0		11.0	11.0		25.0	39.0		22.0	36.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.0		1.0	1.0		3.0	4.3		1.0	4.3	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	28.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	15.0	
Recall Mode	None	None		None	None		None	None		None	C-Min	
Act Effct Green (s)	20.3	20.3		8.9	8.9	33.8	21.3	41.9	56.8	25.0	45.6	71.9
Actuated g/C Ratio	0.17	0.17		0.07	0.07	0.28	0.18	0.35	0.47	0.21	0.38	0.60
v/c Ratio	0.70	0.49		0.33	0.62	0.15	0.68	0.79	0.07	0.36	0.65	0.45
Control Delay	53.5	20.4		33.7	41.0	21.7	36.5	20.8	4.9	54.5	17.9	11.1
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.5	20.4		33.7	41.0	21.7	36.5	20.8	4.9	54.5	17.9	11.1
LOS	D	C		C	D	C	D	C	A	D	B	B
Approach Delay		38.2			35.0			22.2			21.3	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	151	52		0	0	43	135	210	5	74	76	64
Queue Length 95th (ft)	202	96		m53	100	m67	m166	267	m8	119	236	164
Internal Link Dist (ft)		970			323			894			985	
Turn Bay Length (ft)	150			140		140	200		200	200		160
Base Capacity (vph)	690	810		314	324	509	368	1813	772	790	1932	936
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.43		0.27	0.50	0.13	0.58	0.77	0.07	0.33	0.65	0.46

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 80 (67%), Referenced to phase 5:SBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 25.3 Intersection LOS: C
Intersection Capacity Utilization 69.4% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

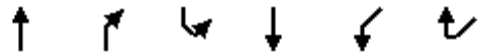
Splits and Phases: 15: Bluebonnet & Picardy/Mall Drive 2



Lane Group	ø11	ø12	ø13	ø14
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	3.0
Minimum Split (s)	10.0	22.0	10.0	9.0
Total Split (s)	17.0	28.0	30.0	45.0
Total Split (%)	14%	23%	25%	38%
Maximum Green (s)	11.0	22.0	24.0	39.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	1.0
Minimum Gap (s)	3.0	3.0	3.0	0.2
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	Max	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

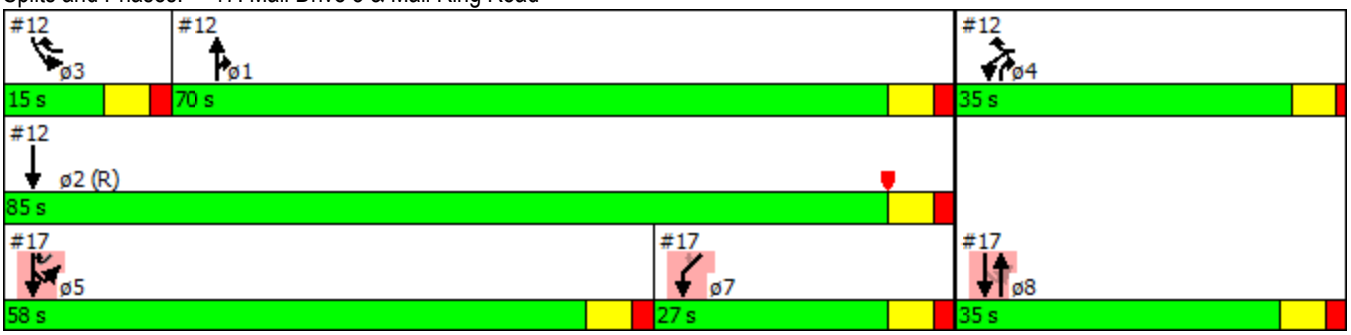
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Lane Configurations										
Volume (vph)	283	168	301	287	208	214				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00				
Frt	0.944					0.850				
Flt Protected			0.950		0.950					
Satd. Flow (prot)	3341	0	1770	1863	1770	1583				
Flt Permitted			0.322		0.950					
Satd. Flow (perm)	3341	0	600	1863	1770	1583				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)	97					206				
Link Speed (mph)	30			30	30					
Link Distance (ft)	797			352	1050					
Travel Time (s)	18.1			8.0	23.9					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Adj. Flow (vph)	308	183	327	312	226	233				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	491	0	327	312	226	233				
Enter Blocked Intersection	No	No	No	No	No	No				
Lane Alignment	Left	Right	Left	Left	Left	Right				
Median Width(ft)	0			12	12					
Link Offset(ft)	0			0	0					
Crosswalk Width(ft)	16			16	16					
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)		9	15		15	9				
Number of Detectors	2		1	2	1	1				
Detector Template	Thru		Left	Thru	Left	Right				
Leading Detector (ft)	100		20	100	20	20				
Trailing Detector (ft)	0		0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0				
Detector 1 Size(ft)	6		20	6	20	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel										
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0				
Detector 2 Position(ft)	94			94						
Detector 2 Size(ft)	6			6						
Detector 2 Type	Cl+Ex			Cl+Ex						
Detector 2 Channel										
Detector 2 Extend (s)	0.0			0.0						
Turn Type	NA		D.P+P	NA	Prot	pm+ov				
Protected Phases	8		5	5 8	7	5	1	2	3	4
Permitted Phases			8			7				
Detector Phase	8		5	5 8	7	5				
Switch Phase										
Minimum Initial (s)	29.0		4.0		4.0	4.0	24.0	34.0	4.0	4.0
Minimum Split (s)	35.0		10.0		22.0	10.0	30.0	40.0	10.0	10.0

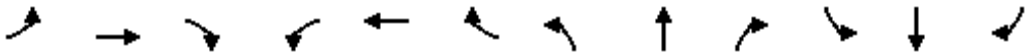


Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Total Split (s)	35.0		58.0		27.0	58.0	70.0	85.0	15.0	35.0
Total Split (%)	29.2%		48.3%		22.5%	48.3%	58%	71%	13%	29%
Maximum Green (s)	29.0		52.0		21.0	52.0	64.0	79.0	9.0	30.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0		2.0	2.0	2.0	2.0	2.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0				
Total Lost Time (s)	6.0		6.0		6.0	6.0				
Lead/Lag			Lead		Lag	Lead	Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	Yes				
Vehicle Extension (s)	4.3		2.5		3.0	2.5	4.3	4.3	2.0	2.5
Minimum Gap (s)	2.2		0.2		3.0	0.2	2.2	2.2	0.2	0.2
Time Before Reduce (s)	30.0		0.0		0.0	0.0	20.0	30.0	0.0	0.0
Time To Reduce (s)	15.0		0.0		0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	Min		Max		None	Max	Min	C-Min	None	None
Walk Time (s)					5.0					
Flash Dont Walk (s)					11.0					
Pedestrian Calls (#/hr)					0					
Act Effct Green (s)	29.0		83.1	89.1	18.9	79.0				
Actuated g/C Ratio	0.24		0.69	0.74	0.16	0.66				
v/c Ratio	0.56		0.35	0.23	0.81	0.21				
Control Delay	34.4		12.1	6.7	60.3	5.0				
Queue Delay	0.0		0.4	0.7	0.0	0.0				
Total Delay	34.4		12.5	7.4	60.3	5.0				
LOS	C		B	A	E	A				
Approach Delay	34.4			10.0	32.2					
Approach LOS	C			B	C					
Queue Length 50th (ft)	141		96	91	107	0				
Queue Length 95th (ft)	197		149	138	#221	69				
Internal Link Dist (ft)	717			272	970					
Turn Bay Length (ft)										
Base Capacity (vph)	880		942	1382	309	1112				
Starvation Cap Reductn	0		248	738	0	0				
Spillback Cap Reductn	0		0	0	0	0				
Storage Cap Reductn	0		0	0	0	0				
Reduced v/c Ratio	0.56		0.47	0.48	0.73	0.21				

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 108 (90%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 24.0		Intersection LOS: C	
Intersection Capacity Utilization 67.4%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

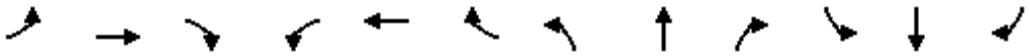
Splits and Phases: 17: Mall Drive 3 & Mall Ring Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	133	1617	33	238	1725	161	0	0	449	170	12	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		200	300		100	0		0	65		0
Storage Lanes	1		1	2		1	0		2	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.865	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1611	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1611	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			136			93			191		120	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1065			834			318			371	
Travel Time (s)		16.1			12.6			7.2			8.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	140	1702	35	251	1816	169	0	0	473	179	13	120
Shared Lane Traffic (%)												
Lane Group Flow (vph)	140	1702	35	251	1816	169	0	0	473	179	133	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1			1	1	1	
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45			45	45	45	
Trailing Detector (ft)	-6	284	-6	-6	284	-6			-6	-6	-6	
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			-6	-6	-6	
Detector 1 Size(ft)	51	51	51	51	51	51			51	51	51	
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA	Perm	Prot	NA	Perm			Over	Perm	NA	
Protected Phases	1	7		5	4				5		2	
Permitted Phases			7			4				2		
Detector Phase	1	7	7	5	4	4			5	2	2	

Lane Group	ø8	ø9	ø10	ø11
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	8	9	10	11
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	14.0	4.0	14.0	14.0			4.0	4.0	4.0	
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	20.0			10.0	10.0	10.0	
Total Split (s)	21.0	61.0	61.0	37.0	77.0	77.0			37.0	22.0	22.0	
Total Split (%)	17.5%	50.8%	50.8%	30.8%	64.2%	64.2%			30.8%	18.3%	18.3%	
Maximum Green (s)	15.0	55.0	55.0	31.0	71.0	71.0			31.0	16.0	16.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0			6.0	6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead			Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	4.3	4.3	2.5	4.3	4.3			2.5	2.0	2.0	
Minimum Gap (s)	0.2	2.2	2.2	0.2	2.2	2.2			0.2	0.2	0.2	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	34.0	34.0			0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	15.0	15.0			0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Min	C-Min			None	None	None	
Act Effct Green (s)	25.8	68.3	68.3	18.7	61.2	61.2			18.7	15.0	15.0	
Actuated g/C Ratio	0.22	0.57	0.57	0.16	0.51	0.51			0.16	0.12	0.12	
v/c Ratio	0.37	0.59	0.04	0.47	0.70	0.20			0.79	0.81	0.43	
Control Delay	26.2	9.9	0.1	42.5	21.9	5.0			42.0	78.0	15.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Delay	26.2	9.9	0.1	42.5	21.9	5.0			42.0	78.0	15.3	
LOS	C	A	A	D	C	A			D	E	B	
Approach Delay		10.9			22.9						51.3	
Approach LOS		B			C						D	
Queue Length 50th (ft)	41	156	0	80	500	25			132	134	9	
Queue Length 95th (ft)	m115	162	m0	m99	454	m38			174	#245	67	
Internal Link Dist (ft)		985			754			238			291	
Turn Bay Length (ft)	140		200	300		100				65		
Base Capacity (vph)	380	2892	959	886	3021	978			861	240	322	
Starvation Cap Reductn	0	0	0	0	0	0			16	0	0	
Spillback Cap Reductn	0	0	0	0	0	0			0	0	0	
Storage Cap Reductn	0	0	0	0	0	0			0	0	0	
Reduced v/c Ratio	0.37	0.59	0.04	0.28	0.60	0.17			0.56	0.75	0.41	

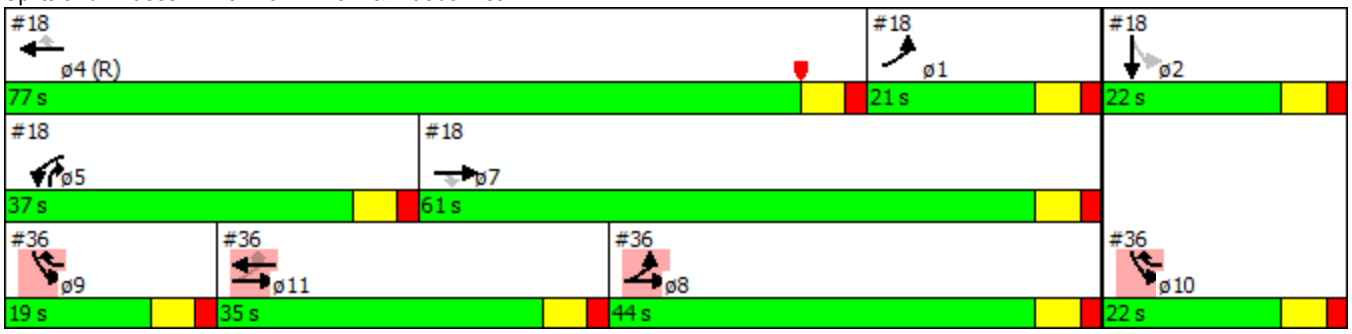
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 103 (86%), Referenced to phase 4:WBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 22.0		Intersection LOS: C	
Intersection Capacity Utilization 71.4%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

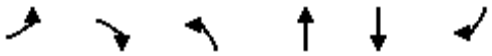
Lane Group	ø8	ø9	ø10	ø11
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	14.0
Minimum Split (s)	22.0	10.0	22.0	20.0
Total Split (s)	44.0	19.0	22.0	35.0
Total Split (%)	37%	16%	18%	29%
Maximum Green (s)	38.0	13.0	16.0	29.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	4.3
Minimum Gap (s)	3.0	3.0	3.0	2.2
Time Before Reduce (s)	0.0	0.0	0.0	34.0
Time To Reduce (s)	0.0	0.0	0.0	15.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 18: Mall Drive 1 & Bluebonnet





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Lane Configurations												
Volume (vph)	266	173	205	264	249	91						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Frt		0.850				0.850						
Flt Protected	0.950		0.950									
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583						
Flt Permitted	0.950		0.414									
Satd. Flow (perm)	1770	1583	771	1863	1863	1583						
Right Turn on Red		Yes				Yes						
Satd. Flow (RTOR)		188				99						
Link Speed (mph)	30			30	30							
Link Distance (ft)	403			1050	819							
Travel Time (s)	9.2			23.9	18.6							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	289	188	223	287	271	99						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	289	188	223	287	271	99						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Right	Left	Left	Left	Right						
Median Width(ft)	36			12	0							
Link Offset(ft)	0			0	0							
Crosswalk Width(ft)	16			16	16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15	9	15			9						
Number of Detectors	1	1	1	2	2	1						
Detector Template	Left	Right	Left	Thru	Thru	Right						
Leading Detector (ft)	20	20	20	100	100	20						
Trailing Detector (ft)	0	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0	0						
Detector 1 Size(ft)	20	20	20	6	6	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)				94	94							
Detector 2 Size(ft)				6	6							
Detector 2 Type				Cl+Ex	Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)				0.0	0.0							
Turn Type	Prot	Free	D.P+P	NA	NA	pm+ov						
Protected Phases	12 13		11	11 14	14	12 13	1	2	3	5	6	8
Permitted Phases		Free	14			14						
Detector Phase	12 13		11	11 14	14	12 13						
Switch Phase												
Minimum Initial (s)			4.0		3.0		3.0	3.0	3.0	21.0	3.0	3.0
Minimum Split (s)			10.0		9.0		11.0	9.0	9.0	27.0	11.0	9.0

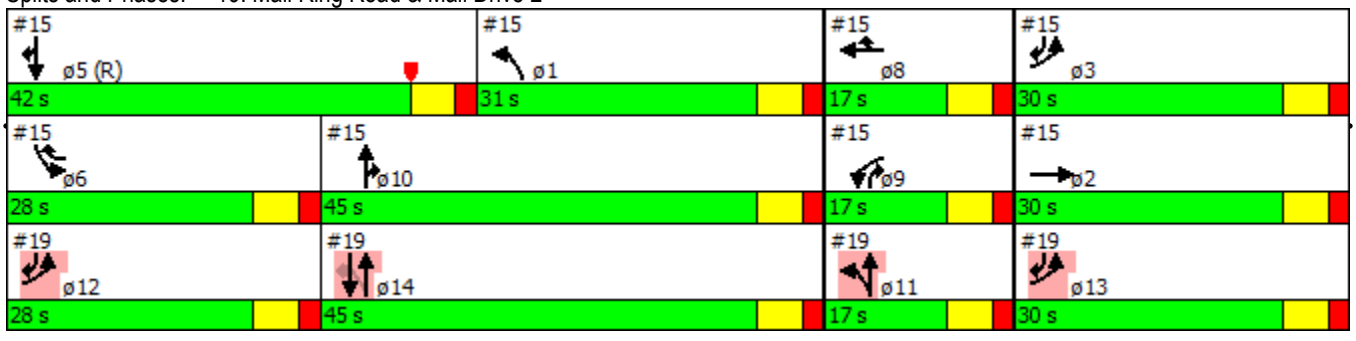
Lane Group	ø9	ø10	ø12	ø13
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	9	10	12	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	21.0	4.0	4.0
Minimum Split (s)	9.0	27.0	22.0	10.0

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Total Split (s)			17.0		45.0		31.0	30.0	30.0	42.0	28.0	17.0
Total Split (%)			14.2%		37.5%		26%	25%	25%	35%	23%	14%
Maximum Green (s)			11.0		39.0		25.0	24.0	24.0	36.0	22.0	11.0
Yellow Time (s)			4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)			2.0		2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0		0.0							
Total Lost Time (s)			6.0		6.0							
Lead/Lag					Lag		Lag			Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0		1.0		3.0	1.0	1.5	4.3	1.0	1.0
Minimum Gap (s)			3.0		0.2		0.2	0.2	0.2	2.2	0.2	0.2
Time Before Reduce (s)			0.0		0.0		0.0	0.0	0.0	28.0	0.0	0.0
Time To Reduce (s)			0.0		0.0		0.0	0.0	0.0	15.0	0.0	0.0
Recall Mode			None		None		None	None	None	C-Min	None	None
Act Effct Green (s)	61.3	120.0	40.7	46.7	31.8	99.1						
Actuated g/C Ratio	0.51	1.00	0.34	0.39	0.26	0.83						
v/c Ratio	0.32	0.12	0.67	0.40	0.55	0.07						
Control Delay	11.5	0.2	51.5	35.0	31.5	0.1						
Queue Delay	0.2	0.0	0.0	0.0	0.0	0.0						
Total Delay	11.7	0.2	51.5	35.0	31.5	0.1						
LOS	B	A	D	C	C	A						
Approach Delay	7.2			42.2	23.1							
Approach LOS	A			D	C							
Queue Length 50th (ft)	52	0	140	189	221	0						
Queue Length 95th (ft)	98	0	227	288	294	0						
Internal Link Dist (ft)	323			970	739							
Turn Bay Length (ft)												
Base Capacity (vph)	891	1583	366	765	605	1314						
Starvation Cap Reductn	157	0	0	0	0	0						
Spillback Cap Reductn	0	0	0	0	0	0						
Storage Cap Reductn	0	0	0	0	0	0						
Reduced v/c Ratio	0.39	0.12	0.61	0.38	0.45	0.08						

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 80 (67%), Referenced to phase 5:SBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 24.7 Intersection LOS: C
Intersection Capacity Utilization 54.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 19: Mall Ring Road & Mall Drive 2

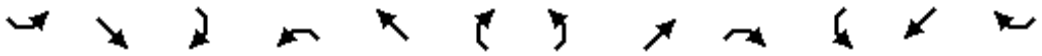


Lane Group	ø9	ø10	ø12	ø13
Total Split (s)	17.0	45.0	28.0	30.0
Total Split (%)	14%	38%	23%	25%
Maximum Green (s)	11.0	39.0	22.0	24.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?			Yes	
Vehicle Extension (s)	1.0	4.3	3.0	3.0
Minimum Gap (s)	0.2	0.2	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	Max	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	189	10	694	0	0	0	0	2021	217	322	1431	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		375	0		0	400		0	300		0
Storage Lanes	1		1	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.88	1.00	1.00	1.00	1.00	0.86	1.00	0.97	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950	0.957								0.950		
Satd. Flow (prot)	1681	1694	2787	0	0	0	0	6408	1583	3433	3539	0
Flt Permitted	0.950	0.957								0.950		
Satd. Flow (perm)	1681	1694	2787	0	0	0	0	6408	1583	3433	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			64						228			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1072			1024			834			410	
Travel Time (s)		24.4			23.3			12.6			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	199	11	731	0	0	0	0	2127	228	339	1506	0
Shared Lane Traffic (%)	47%											
Lane Group Flow (vph)	105	105	731	0	0	0	0	2127	228	339	1506	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			37	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					2	1	1	2	
Detector Template												
Leading Detector (ft)	45	45	45					290	45	45	290	
Trailing Detector (ft)	-6	-6	-6					284	-6	-6	284	
Detector 1 Position(ft)	-6	-6	-6					-6	-6	-6	-6	
Detector 1 Size(ft)	51	51	51					51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	custom					NA	Perm	Prot	NA	
Protected Phases	4	4	4 14					2		1	12	
Permitted Phases									2			
Detector Phase	4	4	4 14					2	2	1	12	

Lane Group	ø5	ø6	ø8	ø14	ø16	ø18
Lane Configurations						
Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	5	6	8	14	16	18
Permitted Phases						
Detector Phase						

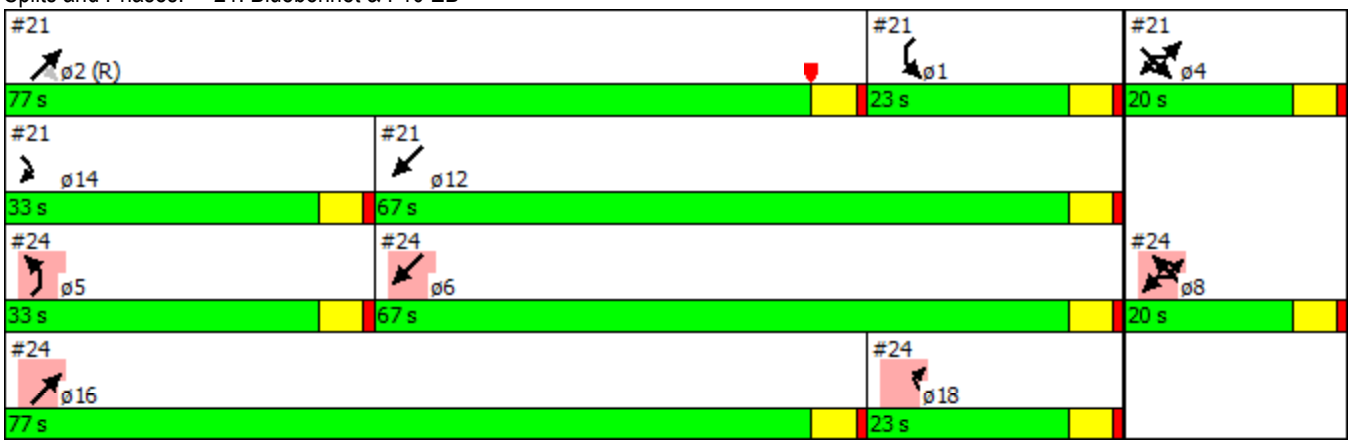


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)	3.0	3.0						10.0	10.0	3.0	10.0	
Minimum Split (s)	18.0	18.0						20.0	20.0	8.0	20.0	
Total Split (s)	20.0	20.0						77.0	77.0	23.0	67.0	
Total Split (%)	16.7%	16.7%						64.2%	64.2%	19.2%	55.8%	
Maximum Green (s)	15.0	15.0						72.0	72.0	18.0	62.0	
Yellow Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0	2.0	2.0	6.0	
Recall Mode	None	None						C-Max	C-Max	None	Max	
Act Effct Green (s)	15.0	15.0	48.0					72.0	72.0	18.0	62.0	
Actuated g/C Ratio	0.12	0.12	0.40					0.60	0.60	0.15	0.52	
v/c Ratio	0.50	0.50	0.63					0.55	0.22	0.66	0.82	
Control Delay	58.0	57.9	29.2					10.7	1.3	35.1	9.9	
Queue Delay	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Total Delay	58.0	57.9	29.2					10.7	1.3	35.1	9.9	
LOS	E	E	C					B	A	D	A	
Approach Delay		35.6						9.8			14.5	
Approach LOS		D						A			B	
Queue Length 50th (ft)	81	81	233					193	15	139	75	
Queue Length 95th (ft)	143	143	307					228	m6	181	109	
Internal Link Dist (ft)		992			944			754			330	
Turn Bay Length (ft)	375		375							300		
Base Capacity (vph)	210	211	1153					3844	1041	514	1828	
Starvation Cap Reductn	0	0	0					0	0	0	0	
Spillback Cap Reductn	0	0	0					55	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.50	0.50	0.63					0.56	0.22	0.66	0.82	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 31 (26%), Referenced to phase 2:NET, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 16.2		Intersection LOS: B	
Intersection Capacity Utilization 74.3%		ICU Level of Service D	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: Bluebonnet & I-10 EB



Lane Group	ø5	ø6	ø8	ø14	ø16	ø18
Switch Phase						
Minimum Initial (s)	3.0	10.0	3.0	3.0	10.0	4.0
Minimum Split (s)	8.0	20.0	18.0	8.0	20.0	20.0
Total Split (s)	33.0	67.0	20.0	33.0	77.0	23.0
Total Split (%)	28%	56%	17%	28%	64%	19%
Maximum Green (s)	28.0	62.0	15.0	28.0	72.0	18.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?						Yes
Vehicle Extension (s)	3.5	6.0	2.0	3.5	2.0	3.0
Recall Mode	Max	Max	None	Max	Max	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	0	0	183	2	350	608	1602	0	0	1570	217
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		525	300		0	575		575
Storage Lanes	0		0	1		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.95	1.00	1.00	0.91	0.91
Frt						0.850					0.982	
Flt Protected				0.950	0.953		0.950					
Satd. Flow (prot)	0	0	0	1681	1686	1583	3433	3539	0	0	4994	0
Flt Permitted				0.950	0.953		0.950					
Satd. Flow (perm)	0	0	0	1681	1686	1583	3433	3539	0	0	4994	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						64					31	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		894			1008			410			866	
Travel Time (s)		20.3			22.9			6.2			13.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	193	2	368	640	1686	0	0	1653	228
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	0	0	96	99	368	640	1686	0	0	1881	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			40			50	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			2	
Detector Template												
Leading Detector (ft)				45	45	45	45	290			290	
Trailing Detector (ft)				-6	-6	-6	-6	284			284	
Detector 1 Position(ft)				-6	-6	-6	-6	-6			-6	
Detector 1 Size(ft)				51	51	51	51	51			51	
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call			Call	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type				Split	NA	custom	Prot	NA			NA	
Protected Phases				8	8	8 18	5	16			6	
Permitted Phases												
Detector Phase				8	8	8 18	5	16			6	

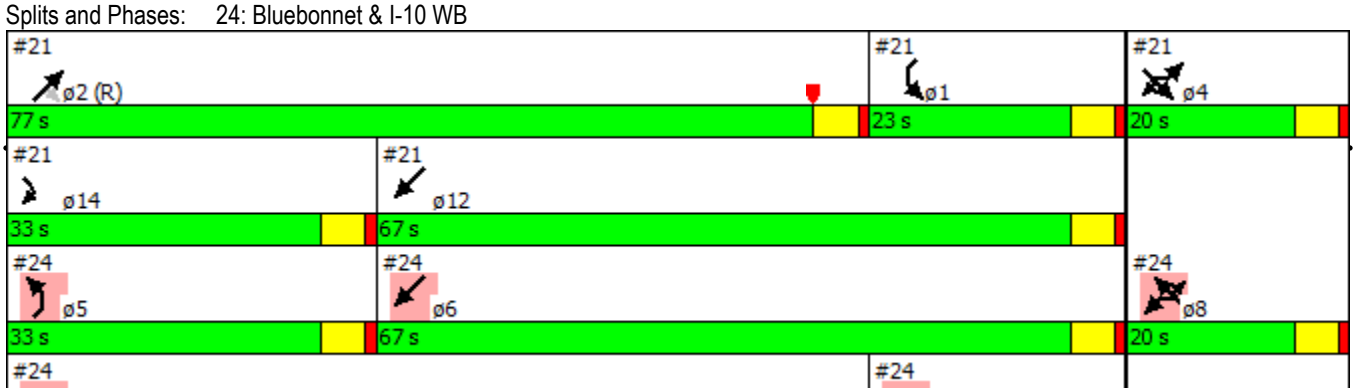
Lane Group	ø1	ø2	ø4	ø12	ø14	ø18
Lane Configurations						
Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	1	2	4	12	14	18
Permitted Phases						
Detector Phase						

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)				3.0	3.0		3.0	10.0			10.0	
Minimum Split (s)				18.0	18.0		8.0	20.0			20.0	
Total Split (s)				20.0	20.0		33.0	77.0			67.0	
Total Split (%)				16.7%	16.7%		27.5%	64.2%			55.8%	
Maximum Green (s)				15.0	15.0		28.0	72.0			62.0	
Yellow Time (s)				4.0	4.0		4.0	4.0			4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				5.0	5.0		5.0	5.0			5.0	
Lead/Lag							Lead	Lead			Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0		3.5	2.0			6.0	
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)				15.0	15.0	38.0	28.0	72.0			62.0	
Actuated g/C Ratio				0.12	0.12	0.32	0.23	0.60			0.52	
v/c Ratio				0.46	0.47	0.68	0.80	0.79			0.72	
Control Delay				56.5	56.9	36.3	43.7	8.9			14.2	
Queue Delay				0.0	0.0	0.0	0.2	0.1			0.0	
Total Delay				56.5	56.9	36.3	43.9	9.0			14.2	
LOS				E	E	D	D	A			B	
Approach Delay					43.4			18.6			14.2	
Approach LOS					D			B			B	
Queue Length 50th (ft)				73	75	206	138	157			319	
Queue Length 95th (ft)				133	136	319	238	556			297	
Internal Link Dist (ft)		814			928			330			786	
Turn Bay Length (ft)						525	300					
Base Capacity (vph)				210	210	545	801	2123			2595	
Starvation Cap Reductn				0	0	0	9	0			0	
Spillback Cap Reductn				0	0	0	0	32			44	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.46	0.47	0.68	0.81	0.81			0.74	

Intersection Summary

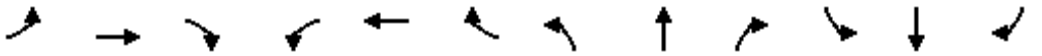
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 31 (26%), Referenced to phase 2:NET, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 19.8 Intersection LOS: B
Intersection Capacity Utilization 74.3% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 24: Bluebonnet & I-10 WB

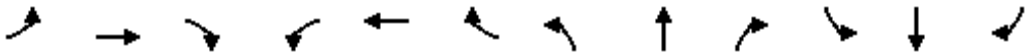


Lane Group	ø1	ø2	ø4	ø12	ø14	ø18
Switch Phase						
Minimum Initial (s)	3.0	10.0	3.0	10.0	3.0	4.0
Minimum Split (s)	8.0	20.0	18.0	20.0	8.0	20.0
Total Split (s)	23.0	77.0	20.0	67.0	33.0	23.0
Total Split (%)	19%	64%	17%	56%	28%	19%
Maximum Green (s)	18.0	72.0	15.0	62.0	28.0	18.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lead		Lag	Lead	Lag
Lead-Lag Optimize?						Yes
Vehicle Extension (s)	2.0	2.0	2.0	6.0	3.5	3.0
Recall Mode	None	C-Max	None	Max	Max	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	75	30	82	203	11	60	86	1673	194	77	1502	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		200	300		175	175		175
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.891			0.897	0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3153	0	3433	1587	1504	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.075			0.059		
Satd. Flow (perm)	1770	3153	0	3433	1587	1504	140	3539	1583	110	3539	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		86										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		475			1072			866			1049	
Travel Time (s)		10.8			24.4			13.1			15.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	79	32	86	214	12	63	91	1761	204	81	1581	27
Shared Lane Traffic (%)						42%						
Lane Group Flow (vph)	79	118	0	214	38	37	91	1761	204	81	1581	27
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		60			60			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4		3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases							2			6		
Detector Phase	7	4		3	8	8 1	5	2	2 3	1	6	6 7

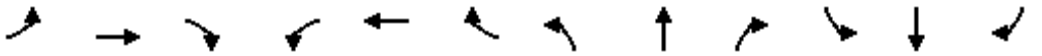


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	5.0		5.0	3.0		3.0	20.0		5.0	20.0	
Minimum Split (s)	8.9	10.9		10.9	8.9		9.6	26.6		11.6	26.6	
Total Split (s)	15.0	13.0		15.0	13.0		16.0	79.0		13.0	76.0	
Total Split (%)	12.5%	10.8%		12.5%	10.8%		13.3%	65.8%		10.8%	63.3%	
Maximum Green (s)	9.1	7.1		9.1	7.1		9.4	72.4		6.4	69.4	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	0.9	0.9		0.9	0.9		1.6	1.6		1.6	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.9	5.9		5.9	5.9		6.6	6.6		6.6	6.6	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		2.5	1.5		1.5	5.0		1.5	5.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	8.1	5.8		10.2	10.1	16.7	83.6	75.5	91.5	75.8	70.0	77.4
Actuated g/C Ratio	0.07	0.05		0.08	0.08	0.14	0.70	0.63	0.76	0.63	0.58	0.64
v/c Ratio	0.66	0.50		0.74	0.29	0.18	0.41	0.79	0.17	0.54	0.77	0.03
Control Delay	79.9	26.6		69.5	60.3	35.0	21.5	10.6	2.2	39.4	20.6	3.2
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	79.9	26.6		69.5	60.3	35.0	21.5	10.7	2.2	39.4	20.6	3.2
LOS	E	C		E	E	C	C	B	A	D	C	A
Approach Delay		48.0			63.9			10.4			21.2	
Approach LOS		D			E			B			C	
Queue Length 50th (ft)	60	12		84	30	22	13	363	23	20	632	6
Queue Length 95th (ft)	#122	43		#150	70	50	m27	389	m25	66	164	m4
Internal Link Dist (ft)		395			992			786			969	
Turn Bay Length (ft)	75			200		200	300		175	175		175
Base Capacity (vph)	134	267		290	133	212	236	2225	1207	158	2087	1044
Starvation Cap Reductn	0	0		0	0	0	0	35	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.44		0.74	0.29	0.17	0.39	0.80	0.17	0.51	0.76	0.03

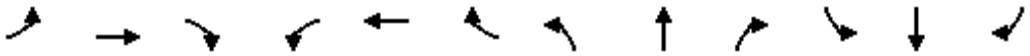
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 44 (37%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 20.1		Intersection LOS: C	
Intersection Capacity Utilization 78.9%		ICU Level of Service D	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 27: Bluebonnet & Blue Cross



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	3	11	30	0	9	19	1766	22	6	1564	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		130	150		185
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.944			0.970				0.850			0.850
Flt Protected		0.976			0.962		0.950			0.950		
Satd. Flow (prot)	0	1716	0	0	1738	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.826			0.754		0.134			0.102		
Satd. Flow (perm)	0	1452	0	0	1362	0	250	3539	1583	190	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			27				27			27
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1129			1330			1049			1811	
Travel Time (s)		25.7			30.2			15.9			27.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	14	3	12	32	0	9	20	1859	23	6	1646	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	29	0	0	41	0	20	1859	23	6	1646	9
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6

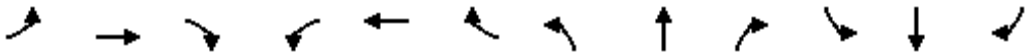


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	11.0	11.0		11.0	11.0		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.0	24.0		24.0	24.0		84.0	84.0	84.0	84.0	84.0	84.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		7.0			7.0		104.5	104.5	104.5	104.5	104.5	104.5
Actuated g/C Ratio		0.06			0.06		0.87	0.87	0.87	0.87	0.87	0.87
v/c Ratio		0.31			0.39		0.09	0.60	0.02	0.04	0.53	0.01
Control Delay		44.6			37.6		1.2	2.5	0.0	4.3	6.3	1.1
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		44.6			37.6		1.2	2.5	0.0	4.3	6.3	1.1
LOS		D			D		A	A	A	A	A	A
Approach Delay		44.6			37.6			2.4			6.3	
Approach LOS		D			D			A			A	
Queue Length 50th (ft)		13			11		2	116	1	1	199	0
Queue Length 95th (ft)		44			47		m0	17	m0	m3	416	m1
Internal Link Dist (ft)		1049			1250			969			1731	
Turn Bay Length (ft)							150		130	150		185
Base Capacity (vph)		300			294		217	3081	1381	165	3081	1381
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.10			0.14		0.09	0.60	0.02	0.04	0.53	0.01

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 63 (53%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 4.9		Intersection LOS: A	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 30: Bluebonnet & Gail

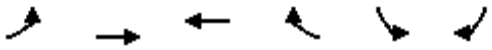
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	1	57	15	1	15	66	1702	19	9	1506	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.895			0.935				0.850			0.850
Flt Protected		0.990			0.976		0.950			0.950		
Satd. Flow (prot)	0	1650	0	0	1700	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.919			0.800		0.142			0.109		
Satd. Flow (perm)	0	1532	0	0	1393	0	265	3539	1583	203	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		45			16				29			29
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1794			2049			1811			2409	
Travel Time (s)		40.8			46.6			27.4			36.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	16	1	60	16	1	16	69	1792	20	9	1585	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	77	0	0	33	0	69	1792	20	9	1585	31
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	9.2	9.2		9.2	9.2		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	34.0	34.0		34.0	34.0		86.0	86.0	86.0	86.0	86.0	86.0
Total Split (%)	28.3%	28.3%		28.3%	28.3%		71.7%	71.7%	71.7%	71.7%	71.7%	71.7%
Maximum Green (s)	27.8	27.8		27.8	27.8		80.0	80.0	80.0	80.0	80.0	80.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.2	1.2		1.2	1.2		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.2			6.2		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		8.1			8.1		103.2	103.2	103.2	103.2	103.2	103.2
Actuated g/C Ratio		0.07			0.07		0.86	0.86	0.86	0.86	0.86	0.86
v/c Ratio		0.53			0.31		0.30	0.59	0.01	0.05	0.52	0.02
Control Delay		39.2			39.4		4.8	3.4	0.3	3.1	3.7	0.9
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		39.2			39.4		4.8	3.4	0.3	3.1	3.7	0.9
LOS		D			D		A	A	A	A	A	A
Approach Delay		39.2			39.4			3.4			3.7	
Approach LOS		D			D			A			A	
Queue Length 50th (ft)		24			13		2	33	0	1	145	0
Queue Length 95th (ft)		72			45		m29	650	m1	5	235	6
Internal Link Dist (ft)		1714			1969			1731			2329	
Turn Bay Length (ft)							150		150	150		150
Base Capacity (vph)		389			335		228	3043	1365	174	3043	1365
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.20			0.10		0.30	0.59	0.01	0.05	0.52	0.02

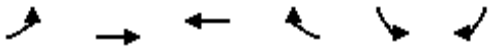
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 2 (2%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 4.6		Intersection LOS: A	
Intersection Capacity Utilization 69.6%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 33: Bluebonnet & Oliphant



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Lane Configurations												
Volume (vph)	159	371	228	290	171	112						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.95						
Frt				0.850	0.941							
Flt Protected	0.950				0.971							
Satd. Flow (prot)	1770	1863	1863	1583	3302	0						
Flt Permitted	0.382				0.971							
Satd. Flow (perm)	712	1863	1863	1583	3302	0						
Right Turn on Red				Yes		Yes						
Satd. Flow (RTOR)				315	122							
Link Speed (mph)		30	30		30							
Link Distance (ft)		819	802		318							
Travel Time (s)		18.6	18.2		7.2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	173	403	248	315	186	122						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	173	403	248	315	308	0						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Right	Left	Right						
Median Width(ft)		12	0		36							
Link Offset(ft)		0	0		0							
Crosswalk Width(ft)		16	16		16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15			9	15	9						
Number of Detectors	1	2	2	1	1							
Detector Template	Left	Thru	Thru	Right	Left							
Leading Detector (ft)	20	100	100	20	20							
Trailing Detector (ft)	0	0	0	0	0							
Detector 1 Position(ft)	0	0	0	0	0							
Detector 1 Size(ft)	20	6	6	20	20							
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex							
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0							
Detector 2 Position(ft)		94	94									
Detector 2 Size(ft)		6	6									
Detector 2 Type		Cl+Ex	Cl+Ex									
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0									
Turn Type	D.P+P	NA	NA	pm+ov	Prot							
Protected Phases	8	8 11	11	9 10	9 10		1	2	4	5	7	9
Permitted Phases	11			11								
Detector Phase	8	8 11	11	9 10	9 10							
Switch Phase												
Minimum Initial (s)	4.0		14.0				4.0	4.0	14.0	4.0	14.0	4.0
Minimum Split (s)	22.0		20.0				10.0	10.0	20.0	10.0	20.0	10.0

Lane Group	ø10
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	10
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	22.0

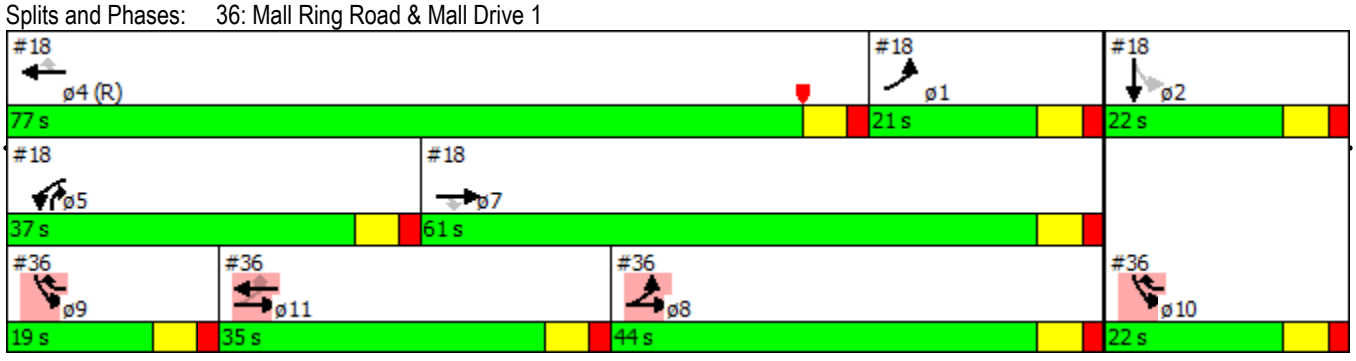


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Total Split (s)	44.0		35.0				21.0	22.0	77.0	37.0	61.0	19.0
Total Split (%)	36.7%		29.2%				18%	18%	64%	31%	51%	16%
Maximum Green (s)	38.0		29.0				15.0	16.0	71.0	31.0	55.0	13.0
Yellow Time (s)	4.0		4.0				4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0				2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0									
Total Lost Time (s)	6.0		6.0									
Lead/Lag			Lag				Lag		Lead	Lead	Lag	Lead
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0		4.3				2.5	2.0	4.3	2.5	4.3	3.0
Minimum Gap (s)	3.0		2.2				0.2	0.2	2.2	0.2	2.2	3.0
Time Before Reduce (s)	0.0		34.0				0.0	0.0	34.0	0.0	0.0	0.0
Time To Reduce (s)	0.0		15.0				0.0	0.0	15.0	0.0	0.0	0.0
Recall Mode	None		None				None	None	C-Min	None	None	None
Act Effct Green (s)	74.8	80.8	24.9	58.1	27.2							
Actuated g/C Ratio	0.62	0.67	0.21	0.48	0.23							
v/c Ratio	0.20	0.32	0.64	0.34	0.37							
Control Delay	3.7	3.4	50.4	2.4	65.9							
Queue Delay	0.0	0.0	0.0	0.0	0.0							
Total Delay	3.7	3.4	50.4	2.4	65.9							
LOS	A	A	D	A	E							
Approach Delay		3.5	23.5		65.9							
Approach LOS		A	C		E							
Queue Length 50th (ft)	22	60	177	0	103							
Queue Length 95th (ft)	36	88	241	38	140							
Internal Link Dist (ft)		739	722		238							
Turn Bay Length (ft)												
Base Capacity (vph)	883	1231	465	916	993							
Starvation Cap Reductn	0	0	0	0	0							
Spillback Cap Reductn	0	0	0	0	0							
Storage Cap Reductn	0	0	0	0	0							
Reduced v/c Ratio	0.20	0.33	0.53	0.34	0.31							

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 103 (86%), Referenced to phase 4:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 24.6 Intersection LOS: C
Intersection Capacity Utilization 44.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 36: Mall Ring Road & Mall Drive 1



Lane Group	ø10
Total Split (s)	22.0
Total Split (%)	18%
Maximum Green (s)	16.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Minimum Gap (s)	3.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

M.36 2037 BUILD PM – ESSEN LANE

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	245	545	109	460	1099	717	571	1325	168	184	901	268
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	800		0	300		0	150		0
Storage Lanes	1		0	1		1	2		0	1		0
Taper Length (ft)	150			25			200			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.97	0.95	0.95	1.00	0.95	0.95
Frt		0.975				0.850		0.983			0.966	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3451	0	1770	3539	1583	3433	3479	0	1770	3419	0
Flt Permitted	0.200			0.200			0.950			0.950		
Satd. Flow (perm)	373	3451	0	373	3539	1583	3433	3479	0	1770	3419	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14				326		10			27	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1877			1475			2128			1788	
Travel Time (s)		28.4			22.3			32.2			27.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	258	574	115	484	1157	755	601	1395	177	194	948	282
Shared Lane Traffic (%)												
Lane Group Flow (vph)	258	689	0	484	1157	755	601	1572	0	194	1230	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	0	1	1		1	1	
Detector Template												
Leading Detector (ft)	45	162		45	162	0	45	45		45	45	
Trailing Detector (ft)	0	156		0	156	0	0	0		0	0	
Detector 1 Position(ft)	0	-6		0	-6	0	0	0		0	0	
Detector 1 Size(ft)	45	51		45	51	50	45	45		45	45	
Detector 1 Type	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		156			156							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2		2						
Detector Phase	1	6		5	2	2	3	8		7	4	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	5.0	10.0		3.0	10.0	
Minimum Split (s)	8.8	15.8		8.8	15.8	15.8	11.5	16.5		9.5	16.5	
Total Split (s)	19.0	39.0		32.0	52.0	52.0	27.0	59.0		20.0	52.0	
Total Split (%)	12.7%	26.0%		21.3%	34.7%	34.7%	18.0%	39.3%		13.3%	34.7%	
Maximum Green (s)	13.2	33.2		26.2	46.2	46.2	20.5	52.5		13.5	45.5	
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8	5.5	5.5		5.5	5.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.8	5.8		5.8	5.8	5.8	6.5	6.5		6.5	6.5	
Lead/Lag	Lag	Lag		Lead	Lead	Lead	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	6.0		2.0	6.0	6.0	2.0	6.0		2.0	6.0	
Minimum Gap (s)	0.2	4.0		0.2	4.0	4.0	0.2	4.0		0.2	4.0	
Time Before Reduce (s)	0.0	20.0		0.0	20.0	20.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0		0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	
Act Effct Green (s)	33.2	33.2		46.2	46.2	46.2	20.5	52.5		13.5	45.5	
Actuated g/C Ratio	0.22	0.22		0.31	0.31	0.31	0.14	0.35		0.09	0.30	
v/c Ratio	1.26	0.89		1.35	1.06	1.06	1.28	1.28		1.22	1.17	
Control Delay	199.6	70.1		212.0	94.1	78.4	191.8	173.9		196.8	129.8	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	199.6	70.1		212.0	94.1	78.4	191.8	173.9		196.8	129.8	
LOS	F	E		F	F	E	F	F		F	F	
Approach Delay		105.4			113.0			178.9			138.9	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~293	341		~569	~653	~574	~382	~1026		~232	~741	
Queue Length 95th (ft)	#498	#446		#798	#793	#827	#506	#1167		#396	#884	
Internal Link Dist (ft)		1797			1395			2048			1708	
Turn Bay Length (ft)	250			800			300			150		
Base Capacity (vph)	205	774		358	1090	713	469	1224		159	1055	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	1.26	0.89		1.35	1.06	1.06	1.28	1.28		1.22	1.17	

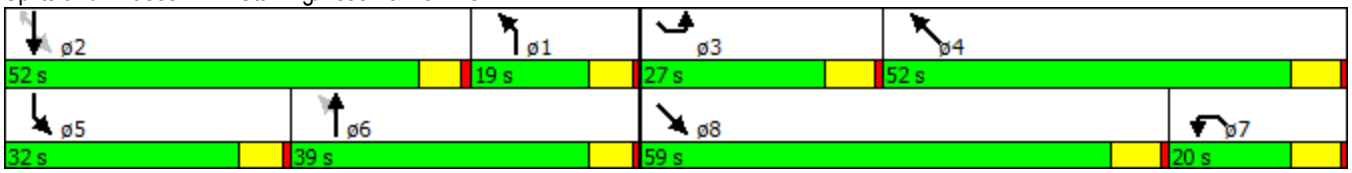
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.35			
Intersection Signal Delay: 137.9		Intersection LOS: F	
Intersection Capacity Utilization 116.7%		ICU Level of Service H	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

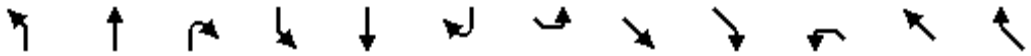
Queue shown is maximum after two cycles.

Splits and Phases: 2: Starring/Essen & Perkins



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	0	2817	629	543	1740	0	19	0	787	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		0	0		800	0		0
Storage Lanes	1		0	2		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.86	0.86	0.97	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt		0.973							0.850			
Flt Protected				0.950			0.950	0.950				
Satd. Flow (prot)	0	6235	0	3433	3539	0	1681	1681	1583	0	0	0
Flt Permitted				0.950			0.950	0.950				
Satd. Flow (perm)	0	6235	0	3433	3539	0	1681	1681	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		87							191			
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		721			409			1012			1106	
Travel Time (s)		10.9			6.2			23.0			25.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	2965	662	572	1832	0	20	0	828	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	0	3627	0	572	1832	0	10	10	828	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2		1	1	0			
Detector Template							Left					
Leading Detector (ft)		290		45	290		20	45	0			
Trailing Detector (ft)		284		0	284		0	0	0			
Detector 1 Position(ft)		-6		0	-6		0	0	0			
Detector 1 Size(ft)		51		45	51		20	45	20			
Detector 1 Type		Call		Cl+Ex	Call		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Queue (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 1 Delay (s)		0.0		0.0	0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA		Prot	NA		Perm	NA	Free			
Protected Phases		6		5	5 6			8				
Permitted Phases							8		Free			
Detector Phase		6		5	5 6		8	8				

Lane Group	ø1	ø2	ø4
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	1	2	4
Permitted Phases			
Detector Phase			



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)		10.0		3.0			3.0	3.0				
Minimum Split (s)		16.0		9.0			9.0	9.0				
Total Split (s)		80.0		29.0			11.0	11.0				
Total Split (%)		66.7%		24.2%			9.2%	9.2%				
Maximum Green (s)		74.0		23.0			5.0	5.0				
Yellow Time (s)		5.0		5.0			5.0	5.0				
All-Red Time (s)		1.0		1.0			1.0	1.0				
Lost Time Adjust (s)		0.0		0.0			0.0	0.0				
Total Lost Time (s)		6.0		6.0			6.0	6.0				
Lead/Lag		Lag					Lead	Lead				
Lead-Lag Optimize?		Yes					Yes	Yes				
Vehicle Extension (s)		4.0		2.5			2.0	2.0				
Minimum Gap (s)		2.0		0.2			0.2	0.2				
Time Before Reduce (s)		10.0		0.0			0.0	0.0				
Time To Reduce (s)		20.0		0.0			0.0	0.0				
Recall Mode		Max		C-Max			Max	Max				
Act Effct Green (s)		74.0		23.0	103.0		5.0	5.0	120.0			
Actuated g/C Ratio		0.62		0.19	0.86		0.04	0.04	1.00			
v/c Ratio		0.94		0.87	0.60		0.14	0.14	0.52			
Control Delay		11.2		32.3	10.7		60.1	60.1	1.2			
Queue Delay		20.3		0.0	1.3		0.0	0.0	0.0			
Total Delay		31.5		32.3	12.0		60.1	60.1	1.2			
LOS		C		C	B		E	E	A			
Approach Delay		31.5			16.8			2.6				
Approach LOS		C			B			A				
Queue Length 50th (ft)		575		206	211		8	8	0			
Queue Length 95th (ft)		m499		m#296	283		27	27	0			
Internal Link Dist (ft)		641			329			932			1026	
Turn Bay Length (ft)									800			
Base Capacity (vph)		3878		657	3037		70	70	1583			
Starvation Cap Reductn		397		0	907		0	0	0			
Spillback Cap Reductn		125		0	0		0	0	0			
Storage Cap Reductn		0		0	0		0	0	0			
Reduced v/c Ratio		1.04		0.87	0.86		0.14	0.14	0.52			

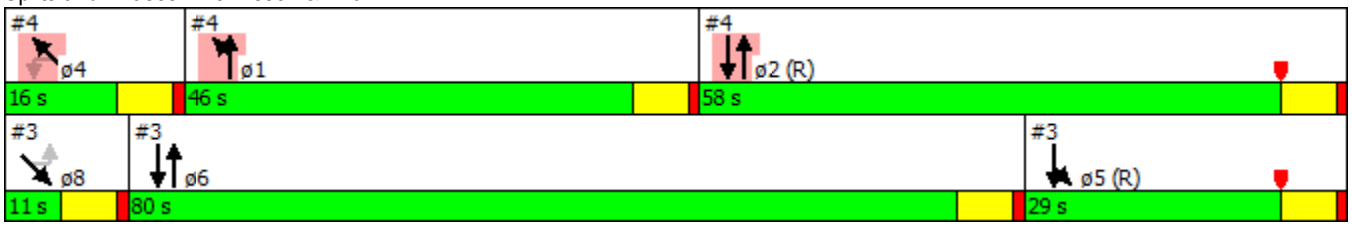
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 34 (28%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 22.8		Intersection LOS: C	
Intersection Capacity Utilization 85.2%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Lane Group	ø1	ø2	ø4
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	46.0	58.0	16.0
Total Split (%)	38%	48%	13%
Maximum Green (s)	40.0	52.0	10.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag		Lead
Lead-Lag Optimize?			
Vehicle Extension (s)	2.5	4.0	4.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	Max	C-Max	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

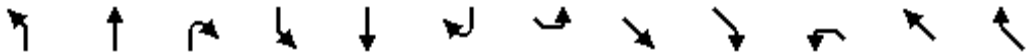
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Essen & I-10 EB



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	919	1917	0	0	2051	81	0	0	0	232	0	418
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	550		200	0		0	750		0
Storage Lanes	2		0	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.86	0.86	1.00	1.00	1.00	0.95	0.95	1.00
Frt					0.994							0.850
Flt Protected	0.950									0.950	0.950	
Satd. Flow (prot)	3433	3539	0	0	6369	0	0	0	0	1681	1681	1583
Flt Permitted	0.950									0.950	0.950	
Satd. Flow (perm)	3433	3539	0	0	6369	0	0	0	0	1681	1681	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					8							191
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		409			805			936			1390	
Travel Time (s)		6.2			12.2			21.3			31.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	967	2018	0	0	2159	85	0	0	0	244	0	440
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	967	2018	0	0	2244	0	0	0	0	122	122	440
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			20			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2					1	1	0
Detector Template										Left		
Leading Detector (ft)	45	290			290					20	45	0
Trailing Detector (ft)	0	284			284					0	0	0
Detector 1 Position(ft)	0	-6			-6					0	0	0
Detector 1 Size(ft)	45	51			51					20	45	20
Detector 1 Type	Cl+Ex	Call			Call					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0	0.0	0.0
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA			NA					Perm	NA	Free
Protected Phases	1	1 2			2						4	
Permitted Phases										4		Free
Detector Phase	1	1 2			2					4	4	

Lane Group	ø5	ø6	ø8
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	5	6	8
Permitted Phases			
Detector Phase			



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Switch Phase												
Minimum Initial (s)	3.0				10.0					3.0	3.0	
Minimum Split (s)	9.0				16.0					9.0	9.0	
Total Split (s)	46.0				58.0					16.0	16.0	
Total Split (%)	38.3%				48.3%					13.3%	13.3%	
Maximum Green (s)	40.0				52.0					10.0	10.0	
Yellow Time (s)	5.0				5.0					5.0	5.0	
All-Red Time (s)	1.0				1.0					1.0	1.0	
Lost Time Adjust (s)	0.0				0.0					0.0	0.0	
Total Lost Time (s)	6.0				6.0					6.0	6.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5				4.0					4.0	4.0	
Minimum Gap (s)	0.2				2.0					0.2	0.2	
Time Before Reduce (s)	0.0				10.0					0.0	0.0	
Time To Reduce (s)	0.0				20.0					0.0	0.0	
Recall Mode	Max				C-Max					Max	Max	
Act Effct Green (s)	40.0	98.0			52.0					10.0	10.0	120.0
Actuated g/C Ratio	0.33	0.82			0.43					0.08	0.08	1.00
v/c Ratio	0.85	0.70			0.81					0.87	0.87	0.28
Control Delay	37.7	1.1			32.2					102.7	102.7	0.4
Queue Delay	14.7	2.0			0.0					0.0	0.0	0.0
Total Delay	52.3	3.1			32.2					102.7	102.7	0.4
LOS	D	A			C					F	F	A
Approach Delay		19.0			32.2						36.9	
Approach LOS		B			C						D	
Queue Length 50th (ft)	276	3			257					100	100	0
Queue Length 95th (ft)	m332	m3			271					#221	#221	0
Internal Link Dist (ft)		329			725			856			1310	
Turn Bay Length (ft)										750		
Base Capacity (vph)	1144	2890			2764					140	140	1583
Starvation Cap Reductn	182	682			0					0	0	0
Spillback Cap Reductn	0	26			0					0	0	11
Storage Cap Reductn	0	0			0					0	0	0
Reduced v/c Ratio	1.01	0.91			0.81					0.87	0.87	0.28

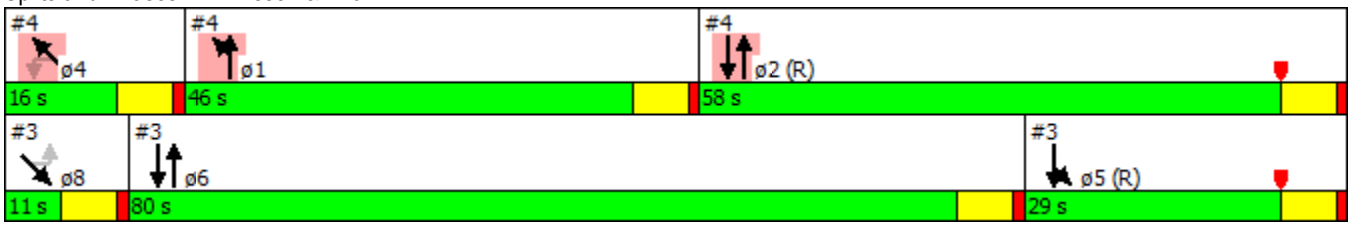
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 34 (28%), Referenced to phase 2:NBSB and 5:, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 26.1		Intersection LOS: C	
Intersection Capacity Utilization 85.2%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

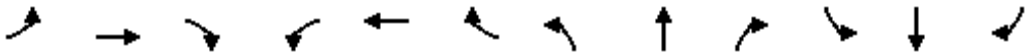
Lane Group	ø5	ø6	ø8
Switch Phase			
Minimum Initial (s)	3.0	10.0	3.0
Minimum Split (s)	9.0	16.0	9.0
Total Split (s)	29.0	80.0	11.0
Total Split (%)	24%	67%	9%
Maximum Green (s)	23.0	74.0	5.0
Yellow Time (s)	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lead
Lead-Lag Optimize?		Yes	Yes
Vehicle Extension (s)	2.5	4.0	2.0
Minimum Gap (s)	0.2	2.0	0.2
Time Before Reduce (s)	0.0	10.0	0.0
Time To Reduce (s)	0.0	20.0	0.0
Recall Mode	C-Max	Max	Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

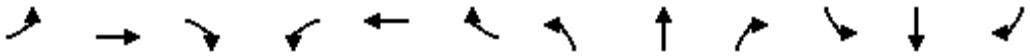
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Essen & I-10 WB





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	242	10	185	108	0	445	133	2628	83	228	2097	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	300		300	150		200	200		0
Storage Lanes	2		0	2		0	1		1	1		0
Taper Length (ft)	25			25			100			50		
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Frt		0.858				0.850			0.850		0.987	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	1598	0	3433	1863	1583	1770	5085	1583	1770	5019	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	1598	0	3433	1863	1583	1770	5085	1583	1770	5019	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		193									19	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1080			896			1094			477	
Travel Time (s)		24.5			20.4			16.6			7.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	255	11	195	114	0	468	140	2766	87	240	2207	201
Shared Lane Traffic (%)												
Lane Group Flow (vph)	255	206	0	114	0	468	140	2766	87	240	2408	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left		Right			Right			
Leading Detector (ft)	45	45		20	45	20	45	290	20	45	256	
Trailing Detector (ft)	0	0		0	0	0	0	284	0	0	250	
Detector 1 Position(ft)	0	0		0	0	0	0	-6	0	0	-6	
Detector 1 Size(ft)	45	45		20	45	20	45	51	20	45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			250	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot		Free	Prot	NA	pt+ov	Prot	NA	
Protected Phases	3	8		7	4		1	6	6 7	5	2	
Permitted Phases						Free						
Detector Phase	3	8		7	4		1	6	6 7	5	2	

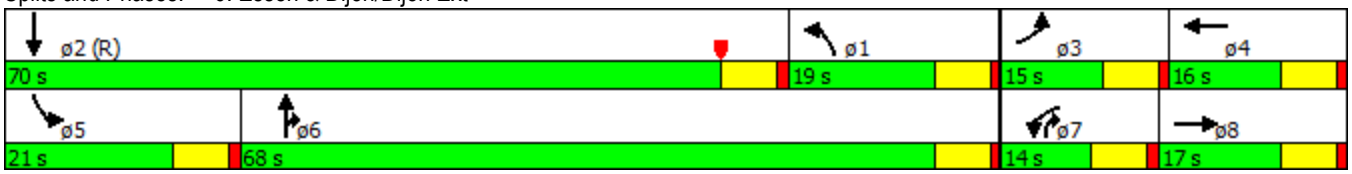


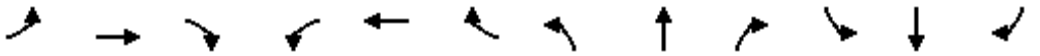
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	5.0		4.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	10.0	11.0		10.0	11.0		11.0	21.0		11.0	21.0	
Total Split (s)	15.0	17.0		14.0	16.0		19.0	68.0		21.0	70.0	
Total Split (%)	12.5%	14.2%		11.7%	13.3%		15.8%	56.7%		17.5%	58.3%	
Maximum Green (s)	9.0	11.0		8.0	10.0		13.0	62.0		15.0	64.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	2.0		3.0	2.0		2.0	2.5		2.0	2.0	
Minimum Gap (s)	3.0	0.2		3.0	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	20.9	7.1		7.8		120.0	17.6	66.1	79.9	15.0	63.6	
Actuated g/C Ratio	0.17	0.06		0.06		1.00	0.15	0.55	0.67	0.12	0.53	
v/c Ratio	0.43	0.75		0.52		0.30	0.54	0.99	0.08	1.09	0.90	
Control Delay	46.1	26.3		62.9		0.5	48.7	30.2	10.8	139.7	13.9	
Queue Delay	0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.9	
Total Delay	46.1	26.3		62.9		0.5	48.7	30.2	10.8	139.7	14.8	
LOS	D	C		E		A	D	C	B	F	B	
Approach Delay		37.2						30.5			26.2	
Approach LOS		D						C			C	
Queue Length 50th (ft)	93	10		44		0	101	686	29	~204	145	
Queue Length 95th (ft)	127	86		75		0	m112	m#894	m29	#370	149	
Internal Link Dist (ft)		1000			816			1014			397	
Turn Bay Length (ft)	200			300		300	150		200	200		
Base Capacity (vph)	596	321		228		1583	259	2802	1057	221	2703	
Starvation Cap Reductn	0	0		0		0	0	0	0	0	110	
Spillback Cap Reductn	0	0		0		0	0	0	0	0	0	
Storage Cap Reductn	0	0		0		0	0	0	0	0	0	
Reduced v/c Ratio	0.43	0.64		0.50		0.30	0.54	0.99	0.08	1.09	0.93	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 84 (70%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.09			
Intersection Signal Delay: 27.7		Intersection LOS: C	
Intersection Capacity Utilization 98.7%		ICU Level of Service F	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

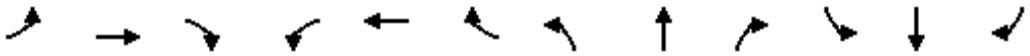
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Essen & Dijon/Dijon Ext





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	14	6	7	83	6	261	1	3172	143	87	2427	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	100		0	350		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			150		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.966				0.850		0.994			0.999	
Flt Protected		0.974			0.955		0.950			0.950		
Satd. Flow (prot)	0	1753	0	0	1779	1583	1770	5055	0	1770	5080	0
Flt Permitted		0.820			0.719		0.950			0.950		
Satd. Flow (perm)	0	1476	0	0	1339	1583	1770	5055	0	1770	5080	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		7						12			1	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		496			1336			477			721	
Travel Time (s)		11.3			30.4			7.2			10.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	15	6	7	87	6	275	1	3339	151	92	2555	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	28	0	0	93	275	1	3490	0	92	2569	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45	45	45	141		45	290	
Trailing Detector (ft)	0	0		0	0	0	0	135		0	284	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	20	45		20	45	45	45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								135			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases		8			4	4 5	1	6		5	2	
Permitted Phases	8			4								
Detector Phase	8	8		4	4	4 5	1	6		5	2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		4.0	15.0		3.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	21.0		9.0	21.0	
Total Split (s)	21.0	21.0		21.0	21.0		11.0	86.0		13.0	88.0	
Total Split (%)	17.5%	17.5%		17.5%	17.5%		9.2%	71.7%		10.8%	73.3%	
Maximum Green (s)	15.0	15.0		15.0	15.0		5.0	80.0		7.0	82.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		3.0	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)		15.0			15.0	28.0	5.4	80.0		7.0	90.8	
Actuated g/C Ratio		0.12			0.12	0.23	0.04	0.67		0.06	0.76	
v/c Ratio		0.15			0.56	0.75	0.01	1.03		0.89	0.67	
Control Delay		40.0			63.1	56.4	54.0	32.0		113.8	11.2	
Queue Delay		0.0			0.0	0.0	0.0	27.5		0.0	0.0	
Total Delay		40.0			63.1	56.4	54.0	59.5		113.8	11.3	
LOS		D			E	E	D	E		F	B	
Approach Delay		40.0			58.1			59.5			14.8	
Approach LOS		D			E			E			B	
Queue Length 50th (ft)		15			69	199	0	~1059		69	523	
Queue Length 95th (ft)		44			127	#318	m1	m#351		m#166	517	
Internal Link Dist (ft)		416			1256			397			641	
Turn Bay Length (ft)						100	100			350		
Base Capacity (vph)		190			167	369	80	3374		103	3844	
Starvation Cap Reductn		0			0	0	0	0		0	57	
Spillback Cap Reductn		0			0	0	0	232		0	94	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.15			0.56	0.75	0.01	1.11		0.89	0.69	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 109 (91%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 41.2 Intersection LOS: D
Intersection Capacity Utilization 99.0% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Essen & Essen Park

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	633	344	2139	306	149	1499
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100		0	150	
Storage Lanes	2	1		0	1	
Taper Length (ft)	25				100	
Lane Util. Factor	0.97	1.00	0.91	0.91	1.00	0.95
Frt		0.850	0.981			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	4989	0	1770	3539
Flt Permitted	0.950				0.053	
Satd. Flow (perm)	3433	1583	4989	0	99	3539
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			37			
Link Speed (mph)	30		45			45
Link Distance (ft)	1306		805			993
Travel Time (s)	29.7		12.2			15.0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	666	362	2252	322	157	1578
Shared Lane Traffic (%)						
Lane Group Flow (vph)	666	362	2574	0	157	1578
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	52		20			25
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2		1	2
Detector Template						
Leading Detector (ft)	45	45	290		45	290
Trailing Detector (ft)	0	0	284		0	284
Detector 1 Position(ft)	0	0	-6		0	-6
Detector 1 Size(ft)	45	45	51		45	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)			284			284
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm	pt+ov	NA		pm+pt	NA
Protected Phases		5 8	6		5	2
Permitted Phases	8				2	
Detector Phase	8	5 8	6		5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	4.0		15.0		5.0	15.0
Minimum Split (s)	20.0		21.0		11.0	21.0
Total Split (s)	30.0		75.0		15.0	90.0
Total Split (%)	25.0%		62.5%		12.5%	75.0%
Maximum Green (s)	26.0		69.0		9.0	84.0
Yellow Time (s)	3.5		5.0		5.0	5.0
All-Red Time (s)	0.5		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.0		6.0		6.0	6.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		5.0		2.0	5.0
Minimum Gap (s)	3.0		3.0		0.2	3.0
Time Before Reduce (s)	0.0		15.0		0.0	15.0
Time To Reduce (s)	0.0		15.0		0.0	15.0
Recall Mode	None		C-Min		None	Min
Walk Time (s)	5.0					
Flash Dont Walk (s)	11.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	26.1	39.1	68.9		83.9	83.9
Actuated g/C Ratio	0.22	0.33	0.57		0.70	0.70
v/c Ratio	0.89	0.70	0.89		0.81	0.64
Control Delay	61.2	44.0	11.9		55.4	6.1
Queue Delay	0.0	0.0	0.1		0.0	0.0
Total Delay	61.2	44.0	12.0		55.4	6.1
LOS	E	D	B		E	A
Approach Delay	55.1		12.0			10.6
Approach LOS	E		B			B
Queue Length 50th (ft)	260	245	96		73	200
Queue Length 95th (ft)	#363	359	418		m#143	m205
Internal Link Dist (ft)	1226		725			913
Turn Bay Length (ft)		100			150	
Base Capacity (vph)	757	520	2900		194	2488
Starvation Cap Reductn	0	0	26		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.88	0.70	0.90		0.81	0.63

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 19 (16%), Referenced to phase 6:NBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 19.8	Intersection LOS: B
Intersection Capacity Utilization 87.8%	ICU Level of Service E

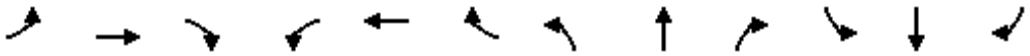
Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 17: Essen & United Plaza South

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1115	74	187	170	37	352	36	1377	57	249	1811	330
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	425		50	280		280	150		0	550		300
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	100			200			25			100		
Lane Util. Factor	0.91	0.91	1.00	0.95	0.95	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Frt			0.850			0.850		0.994				0.850
Flt Protected	0.950	0.961		0.950	0.969		0.950			0.950		
Satd. Flow (prot)	3221	1629	1583	1681	1715	1583	1770	5055	0	1770	5085	1583
Flt Permitted	0.950	0.961		0.950	0.969		0.950			0.950		
Satd. Flow (perm)	3221	1629	1583	1681	1715	1583	1770	5055	0	1770	5085	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								5				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1908			1396			1335			1094	
Travel Time (s)		43.4			31.7			20.2			16.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1174	78	197	179	39	371	38	1449	60	262	1906	347
Shared Lane Traffic (%)	29%			40%								
Lane Group Flow (vph)	834	418	197	107	111	371	38	1509	0	262	1906	347
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		45			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	0	1	1	1	1	2		1	2	2
Detector Template												
Leading Detector (ft)	45	45	0	45	45	45	45	290		45	256	45
Trailing Detector (ft)	0	0	0	0	0	0	0	284		0	284	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	-6		0	-6	-6
Detector 1 Size(ft)	45	45	20	45	45	45	45	51		45	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Call
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	0
Detector 2 Size(ft)								6			-28	45
Detector 2 Type								Extend			Extend	Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	0.0
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4	4 5	1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4	4 5	1	6		5	2	2 8

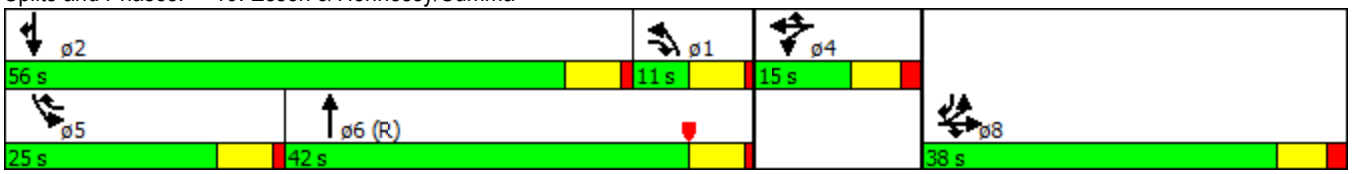


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	14.5	14.5		14.5	14.5		9.0	21.0		9.0	21.0	
Total Split (s)	38.0	38.0		15.0	15.0		11.0	42.0		25.0	56.0	
Total Split (%)	31.7%	31.7%		12.5%	12.5%		9.2%	35.0%		20.8%	46.7%	
Maximum Green (s)	31.5	31.5		8.5	8.5		5.0	36.0		19.0	50.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	31.5	31.5	37.5	8.5	8.5	27.0	6.5	36.0		19.0	48.5	86.5
Actuated g/C Ratio	0.26	0.26	0.31	0.07	0.07	0.22	0.05	0.30		0.16	0.40	0.72
v/c Ratio	0.99	0.98	0.40	0.90	0.92	1.04	0.40	0.99		0.94	0.93	0.30
Control Delay	72.3	83.1	29.2	114.6	117.8	91.7	46.4	48.6		92.6	33.6	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	72.3	83.1	29.2	114.6	117.8	91.7	46.4	48.6		92.6	33.6	9.7
LOS	E	F	C	F	F	F	D	D		F	C	A
Approach Delay		69.6			100.8			48.5			36.5	
Approach LOS		E			F			D			D	
Queue Length 50th (ft)	354	353	88	88	91	~214	31	454		194	232	92
Queue Length 95th (ft)	#497	#581	140	#204	#210	#401	m51	#529		m#267	429	m149
Internal Link Dist (ft)		1828			1316			1255			1014	
Turn Bay Length (ft)	425		50	280		280	150			550		300
Base Capacity (vph)	845	427	494	119	121	356	95	1520		280	2118	1160
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.99	0.98	0.40	0.90	0.92	1.04	0.40	0.99		0.94	0.90	0.30

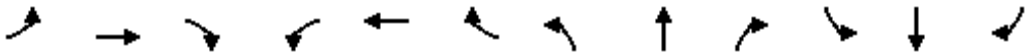
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 80 (67%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 140			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.04			
Intersection Signal Delay: 53.6		Intersection LOS: D	
Intersection Capacity Utilization 87.4%		ICU Level of Service E	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Essen & Hennessy/Summa



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	183	162	245	55	64	68	83	1229	72	104	1976	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	150		0	150		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.910			0.922			0.992			0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1695	0	1770	1717	0	1770	5045	0	1770	5055	0
Flt Permitted	0.616			0.137			0.085			0.155		
Satd. Flow (perm)	1147	1695	0	255	1717	0	158	5045	0	289	5055	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		67			48			10			8	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1062			1416			1475			1335	
Travel Time (s)		24.1			32.2			22.3			20.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	193	171	258	58	67	72	87	1294	76	109	2080	92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	193	429	0	58	139	0	87	1370	0	109	2172	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template												
Leading Detector (ft)	45	45		45	45		45	290		45	290	
Trailing Detector (ft)	0	0		0	0		0	284		0	284	
Detector 1 Position(ft)	0	0		0	0		0	-6		0	-6	
Detector 1 Size(ft)	45	45		45	45		45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		1	6		5	2	

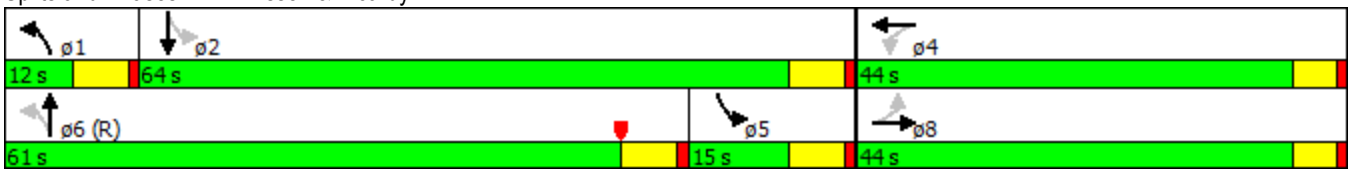


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		2.0	15.0		3.0	15.0	
Minimum Split (s)	8.0	8.0		8.0	8.0		8.0	21.0		9.0	21.0	
Total Split (s)	44.0	44.0		44.0	44.0		12.0	61.0		15.0	64.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		10.0%	50.8%		12.5%	53.3%	
Maximum Green (s)	39.0	39.0		39.0	39.0		6.0	55.0		9.0	58.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.0		0.2	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	10.0		0.0	10.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	20.0		0.0	20.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	31.1	31.1		31.1	31.1		53.2	53.2		65.9	65.9	
Actuated g/C Ratio	0.26	0.26		0.26	0.26		0.44	0.44		0.55	0.55	
v/c Ratio	0.65	0.88		0.88	0.29		0.58	0.61		0.28	0.78	
Control Delay	49.1	54.5		125.0	22.8		39.5	28.3		11.8	12.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	49.1	54.5		125.0	22.8		39.5	28.3		11.8	12.6	
LOS	D	D		F	C		D	C		B	B	
Approach Delay		52.8			52.9			29.0			12.6	
Approach LOS		D			D			C			B	
Queue Length 50th (ft)	133	273		43	55		39	292		25	188	
Queue Length 95th (ft)	199	373		#117	101		#93	385		m17	116	
Internal Link Dist (ft)		982			1336			1395			1255	
Turn Bay Length (ft)	225			150			150			150		
Base Capacity (vph)	372	596		82	590		150	2448		389	2780	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.52	0.72		0.71	0.24		0.58	0.56		0.28	0.78	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 77 (64%), Referenced to phase 6:NBTL, Start of Yellow			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 25.1		Intersection LOS: C	
Intersection Capacity Utilization 89.9%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Essen & Picardy



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	503	172	2615	12	54	1251
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	125		125	125	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.88	0.91	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2787	5085	1583	1770	3539
Flt Permitted	0.950				0.057	
Satd. Flow (perm)	1770	2787	5085	1583	106	3539
Right Turn on Red		Yes		No		
Satd. Flow (RTOR)		142				
Link Speed (mph)	30		45			45
Link Distance (ft)	1179		993			571
Travel Time (s)	26.8		15.0			8.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	529	181	2753	13	57	1317
Shared Lane Traffic (%)						
Lane Group Flow (vph)	529	181	2753	13	57	1317
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	42		20			20
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template						
Leading Detector (ft)	45	45	290	45	45	290
Trailing Detector (ft)	0	0	284	0	-6	284
Detector 1 Position(ft)	0	0	-6	0	-6	-6
Detector 1 Size(ft)	45	45	51	45	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			284			284
Detector 2 Size(ft)			6			6
Detector 2 Type			Extend			Extend
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	pt+ov	pm+pt	NA
Protected Phases	4		6	6 4	5	2
Permitted Phases		4			2	
Detector Phase	4	4	6	6 4	5	2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Switch Phase						
Minimum Initial (s)	5.0	5.0	15.0		3.0	15.0
Minimum Split (s)	11.0	11.0	21.0		9.0	21.0
Total Split (s)	40.0	40.0	69.0		11.0	80.0
Total Split (%)	33.3%	33.3%	57.5%		9.2%	66.7%
Maximum Green (s)	34.0	34.0	63.0		5.0	74.0
Yellow Time (s)	5.0	5.0	5.0		5.0	5.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0
Recall Mode	None	None	C-Min		None	Min
Act Effct Green (s)	34.0	34.0	65.2	106.4	74.0	74.0
Actuated g/C Ratio	0.28	0.28	0.54	0.89	0.62	0.62
v/c Ratio	1.06	0.20	1.00	0.01	0.43	0.60
Control Delay	97.6	9.4	28.0	0.4	25.8	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	97.6	9.4	28.0	0.4	25.8	9.5
LOS	F	A	C	A	C	A
Approach Delay	75.1		27.8			10.1
Approach LOS	E		C			B
Queue Length 50th (ft)	~449	12	~829	1	10	180
Queue Length 95th (ft)	#663	43	#915	m0	m35	63
Internal Link Dist (ft)	1099		913			491
Turn Bay Length (ft)		125		125	125	
Base Capacity (vph)	501	891	2762	1403	134	2182
Starvation Cap Reductn	0	0	0	0	0	124
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.06	0.20	1.00	0.01	0.43	0.64

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 33 (28%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 130			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.06			
Intersection Signal Delay: 29.7		Intersection LOS: C	
Intersection Capacity Utilization 88.4%		ICU Level of Service E	
Analysis Period (min) 15			

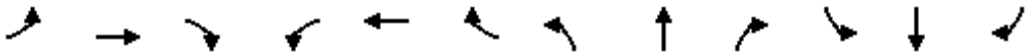
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 28: Essen & United Plaza North

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	65	0	22	118	1	402	17	2754	15	38	1165	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		100	175		0	150		0
Storage Lanes	1		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	0.95
Frt		0.850				0.850		0.999			0.995	
Flt Protected	0.950				0.953		0.950			0.950		
Satd. Flow (prot)	1770	1583	0	0	1775	1583	1770	5080	0	1770	3522	0
Flt Permitted	0.616				0.711		0.219			0.058		
Satd. Flow (perm)	1147	1583	0	0	1324	1583	408	5080	0	108	3522	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		191						1			6	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		757			843			571			472	
Travel Time (s)		17.2			19.2			8.7			7.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	68	0	23	124	1	423	18	2899	16	40	1226	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	68	23	0	0	125	423	18	2915	0	40	1271	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2		1	3	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290		45	390	
Trailing Detector (ft)	0	0		0	0	0	0	284		0	284	
Detector 1 Position(ft)	0	0		0	0	0	0	-6		0	-6	
Detector 1 Size(ft)	45	45		20	45	45	45	51		45	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Detector 3 Position(ft)											384	
Detector 3 Size(ft)											6	
Detector 3 Type											Cl+Ex	
Detector 3 Channel												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 3 Extend (s)											0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		8		7	4	4 5	1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4	4 5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	31.0		11.0	31.0	
Total Split (s)	13.0	13.0		11.0	24.0		11.0	76.0		20.0	85.0	
Total Split (%)	10.8%	10.8%		9.2%	20.0%		9.2%	63.3%		16.7%	70.8%	
Maximum Green (s)	7.0	7.0		5.0	18.0		5.0	70.0		14.0	79.0	
Yellow Time (s)	4.5	4.5		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		2.0	2.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag		Lead			Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	7.0		2.0	7.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	3.0		0.2	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	Min		None	C-Min	
Act Effct Green (s)	18.0	18.0			18.0	37.0	71.0	71.0		86.2	86.2	
Actuated g/C Ratio	0.15	0.15			0.15	0.31	0.59	0.59		0.72	0.72	
v/c Ratio	0.40	0.06			0.63	0.87	0.06	0.97		0.16	0.50	
Control Delay	53.8	0.3			63.2	58.3	1.9	11.1		11.3	4.9	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	53.8	0.3			63.2	58.3	1.9	11.1		11.3	4.9	
LOS	D	A			E	E	A	B		B	A	
Approach Delay		40.3			59.4			11.0			5.1	
Approach LOS		D			E			B			A	
Queue Length 50th (ft)	48	0			92	305	1	82		3	56	
Queue Length 95th (ft)	96	0			#167	#478	m1	m89		m25	163	
Internal Link Dist (ft)		677			763			491			392	
Turn Bay Length (ft)	75					100	175			150		
Base Capacity (vph)	172	399			198	501	316	3007		271	2578	
Starvation Cap Reductn	0	0			0	0	0	0		0	106	
Spillback Cap Reductn	0	1			0	0	0	0		0	18	
Storage Cap Reductn	0	0			0	0	0	0		0	0	
Reduced v/c Ratio	0.40	0.06			0.63	0.84	0.06	0.97		0.15	0.51	

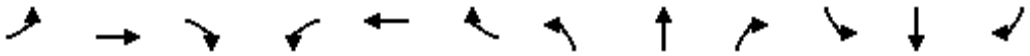
Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 30 (25%), Referenced to phase 2:SBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	

Intersection Signal Delay: 15.4	Intersection LOS: B
Intersection Capacity Utilization 97.6%	ICU Level of Service F
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 29: Essen & Sholar/Archives

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	228	0	47	0	0	0	0	1870	1350	0	1198	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.949							0.850			
Flt Protected	0.950	0.968										
Satd. Flow (prot)	1681	1626	0	0	0	0	0	3539	1583	0	3539	0
Flt Permitted	0.950	0.968										
Satd. Flow (perm)	1681	1626	0	0	0	0	0	3539	1583	0	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36							453			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		995			508			472			1384	
Travel Time (s)		22.6			11.5			7.2			21.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	240	0	49	0	0	0	0	1968	1421	0	1261	0
Shared Lane Traffic (%)	39%											
Lane Group Flow (vph)	146	143	0	0	0	0	0	1968	1421	0	1261	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1						2	1		2	
Detector Template												
Leading Detector (ft)	45	45						290	45		290	
Trailing Detector (ft)	0	0						284	-6		284	
Detector 1 Position(ft)	0	0						-6	-6		-6	
Detector 1 Size(ft)	45	45						51	51		51	
Detector 1 Type	Cl+Ex	Cl+Ex						Call	Cl+Ex		Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0		0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA						NA	Free		NA	
Protected Phases		8						6			2	
Permitted Phases	8								Free			
Detector Phase	8	8						6			2	

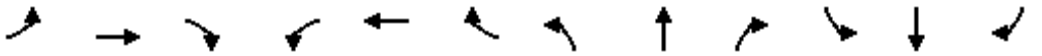


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	10.0	10.0						25.0			25.0	
Minimum Split (s)	17.0	17.0						32.0			32.0	
Total Split (s)	26.0	26.0						94.0			94.0	
Total Split (%)	21.7%	21.7%						78.3%			78.3%	
Maximum Green (s)	19.0	19.0						87.0			87.0	
Yellow Time (s)	5.0	5.0						5.0			5.0	
All-Red Time (s)	2.0	2.0						2.0			2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	7.0	7.0						7.0			7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5						5.0			5.0	
Minimum Gap (s)	0.2	0.2						3.0			3.0	
Time Before Reduce (s)	0.0	0.0						15.0			15.0	
Time To Reduce (s)	0.0	0.0						15.0			15.0	
Recall Mode	None	None						C-Max			Max	
Act Effct Green (s)	14.9	14.9						91.1	120.0		91.1	
Actuated g/C Ratio	0.12	0.12						0.76	1.00		0.76	
v/c Ratio	0.70	0.61						0.73	0.90		0.47	
Control Delay	67.8	48.0						4.2	15.5		6.4	
Queue Delay	0.0	0.0						0.5	0.0		0.0	
Total Delay	67.8	48.0						4.7	15.5		6.4	
LOS	E	D						A	B		A	
Approach Delay		58.0						9.2			6.4	
Approach LOS		E						A			A	
Queue Length 50th (ft)	115	83						153	1064		166	
Queue Length 95th (ft)	185	151						m157	m1106		234	
Internal Link Dist (ft)		915			428			392			1304	
Turn Bay Length (ft)	400											
Base Capacity (vph)	266	287						2686	1583		2686	
Starvation Cap Reductn	0	0						287	0		0	
Spillback Cap Reductn	0	0						0	0		7	
Storage Cap Reductn	0	0						0	0		0	
Reduced v/c Ratio	0.55	0.50						0.82	0.90		0.47	

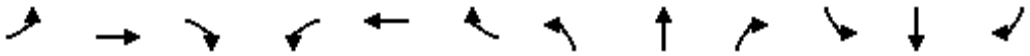
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 43 (36%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 11.3		Intersection LOS: B	
Intersection Capacity Utilization 71.7%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 32: Essen & I-12 EB

M.37 2037 BUILD PM – BLUEBONNET BOULEVARD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	169	1089	107	464	732	143	184	1096	182	360	994	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		250	325		375	350		0	250		150
Storage Lanes	2		1	2		1	2		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Frt			0.850			0.850		0.979				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3465	0	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3465	0	3433	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								13				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		2445			3864			2201			709	
Travel Time (s)		37.0			58.5			33.3			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	178	1146	113	488	771	151	194	1154	192	379	1046	207
Shared Lane Traffic (%)												
Lane Group Flow (vph)	178	1146	113	488	771	151	194	1346	0	379	1046	207
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45	45	290		45	290	45
Trailing Detector (ft)	-6	284	-6	-6	284	-6	-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6	-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51	51	51		51	51	51
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		284			284			284			284	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Extend			Extend			Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8		7	4	4 5
Permitted Phases												
Detector Phase	5	2	2 3	1	6	6 7	3	8		7	4	4 5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	10.0		4.0	10.0	
Minimum Split (s)	11.0	34.5		11.0	37.5		11.0	41.0		11.0	41.0	
Total Split (s)	20.0	52.0		26.0	58.0		18.0	61.0		21.0	64.0	
Total Split (%)	12.5%	32.5%		16.3%	36.3%		11.3%	38.1%		13.1%	40.0%	
Maximum Green (s)	13.0	45.5		19.0	51.5		11.0	54.0		14.0	57.0	
Yellow Time (s)	5.0	4.5		5.0	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	6.5		7.0	6.5		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.3		3.0	4.3		3.0	3.9		3.0	3.9	
Minimum Gap (s)	0.2	2.2		0.2	2.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	15.0		0.0	15.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0		0.0	10.0		0.0	10.0	
Recall Mode	None	Min		None	Min		None	Min		None	C-Min	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		23.0			26.0			29.0			29.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	12.2	45.5	62.7	19.0	52.3	73.3	16.7	54.0		14.0	51.3	63.6
Actuated g/C Ratio	0.08	0.28	0.39	0.12	0.33	0.46	0.10	0.34		0.09	0.32	0.40
v/c Ratio	0.68	1.14	0.18	1.20	0.67	0.21	0.54	1.14		1.26	0.92	0.33
Control Delay	85.4	125.2	19.5	168.0	50.0	27.2	74.8	121.2		197.0	59.3	15.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.3	0.0
Total Delay	85.4	125.2	19.5	168.0	50.0	27.2	74.8	121.2		197.0	59.6	15.6
LOS	F	F	B	F	D	C	E	F		F	E	B
Approach Delay		112.0			88.4			115.4			85.9	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	94	~733	51	~317	369	95	102	~861		~251	417	37
Queue Length 95th (ft)	138	#873	89	#436	444	146	#173	#1003		#374	552	m120
Internal Link Dist (ft)		2365			3784			2121			629	
Turn Bay Length (ft)	440		250	325		375	350			250		150
Base Capacity (vph)	278	1006	620	407	1156	724	357	1178		300	1260	692
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	25	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.64	1.14	0.18	1.20	0.67	0.21	0.54	1.14		1.26	0.85	0.30

Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 160			
Offset: 145 (91%), Referenced to phase 4:SBT, Start of Yellow			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.26			
Intersection Signal Delay: 100.3		Intersection LOS: F	
Intersection Capacity Utilization 112.6%		ICU Level of Service H	

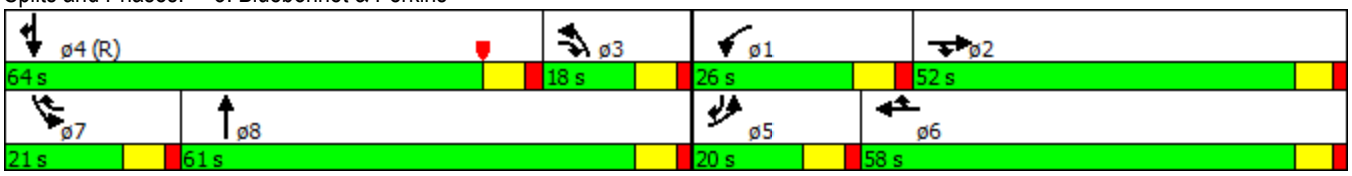
Analysis Period (min) 15

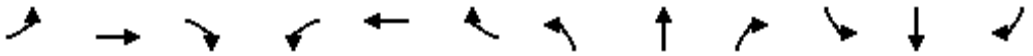
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

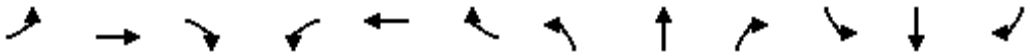
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Bluebonnet & Perkins





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	102	14	57	78	15	198	99	1144	166	333	1418	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		125	160		160	175		0
Storage Lanes	1		0	0		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.880				0.850			0.850		0.992	
Flt Protected	0.950				0.960		0.950			0.950		
Satd. Flow (prot)	1770	1639	0	0	1788	1583	1770	3539	1583	3433	3511	0
Flt Permitted	0.694				0.518		0.950			0.950		
Satd. Flow (perm)	1293	1639	0	0	965	1583	1770	3539	1583	3433	3511	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		60									6	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		511			1048			709			2556	
Travel Time (s)		11.6			23.8			10.7			38.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	107	15	60	82	16	208	104	1204	175	351	1493	85
Shared Lane Traffic (%)												
Lane Group Flow (vph)	107	75	0	0	98	208	104	1204	175	351	1578	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290	45	45	290	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284	-6	-6	284	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6	-6	-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	
Protected Phases		8		7	4	4 5	1	6	6 7	5	2	
Permitted Phases	8			4								
Detector Phase	8	8		7	4	4 5	1	6	6 7	5	2	

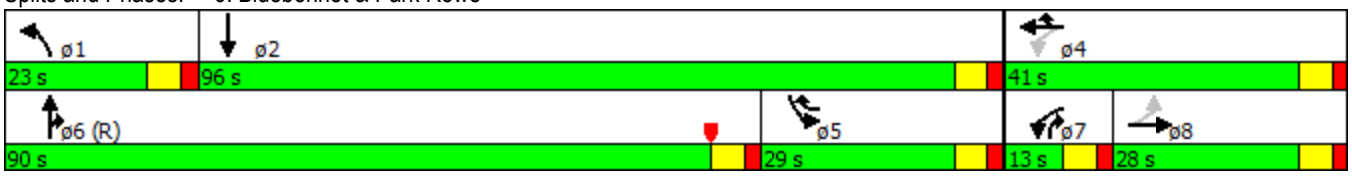


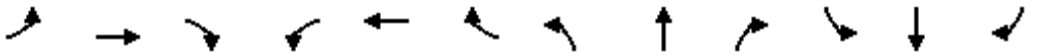
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		3.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	11.0	11.0		9.0	11.0		9.0	21.0		9.0	21.0	
Total Split (s)	28.0	28.0		13.0	41.0		23.0	90.0		29.0	96.0	
Total Split (%)	17.5%	17.5%		8.1%	25.6%		14.4%	56.3%		18.1%	60.0%	
Maximum Green (s)	22.0	22.0		7.0	35.0		17.0	84.0		23.0	90.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag		Lead			Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		1.5	2.0		1.5	4.0		1.5	4.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	17.0	17.0			30.8	61.1	13.0	86.9	94.6	24.4	98.3	
Actuated g/C Ratio	0.11	0.11			0.19	0.38	0.08	0.54	0.59	0.15	0.61	
v/c Ratio	0.78	0.33			0.44	0.34	0.73	0.63	0.19	0.67	0.73	
Control Delay	103.6	23.8			60.4	35.2	86.1	36.5	11.9	70.1	25.5	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.4	0.0	0.0	0.0	
Total Delay	103.6	23.8			60.4	35.2	86.1	36.9	11.9	70.1	25.6	
LOS	F	C			E	D	F	D	B	E	C	
Approach Delay		70.7			43.3			37.4			33.7	
Approach LOS		E			D			D			C	
Queue Length 50th (ft)	110	14			88	153	115	465	88	182	601	
Queue Length 95th (ft)	178	66			143	197	m119	m193	m48	223	767	
Internal Link Dist (ft)		431			968			629			2476	
Turn Bay Length (ft)	100					125	160		160	175		
Base Capacity (vph)	177	277			252	641	188	1988	968	554	2160	
Starvation Cap Reductn	0	0			0	0	0	333	0	0	0	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	18	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.60	0.27			0.39	0.32	0.55	0.73	0.18	0.63	0.74	

Intersection Summary

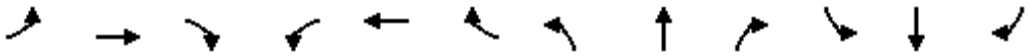
Area Type: Other
Cycle Length: 160
Actuated Cycle Length: 160
Offset: 18 (11%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 37.6 Intersection LOS: D
Intersection Capacity Utilization 74.6% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Bluebonnet & Park Rowe





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	610	6	99	29	2	56	19	1414	12	21	1704	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	475		475	50		0	425		0	130		130
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.855			0.999				0.850
Flt Protected	0.950	0.953		0.950			0.950			0.950		
Satd. Flow (prot)	1681	1686	1583	1770	1593	0	1770	3536	0	1770	3539	1583
Flt Permitted	0.950	0.953		0.625			0.950			0.950		
Satd. Flow (perm)	1681	1686	1583	1164	1593	0	1770	3536	0	1770	3539	1583
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)					59			1				
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1004			740			2556			469	
Travel Time (s)		22.8			16.8			38.7			7.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	642	6	104	31	2	59	20	1488	13	22	1794	147
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	321	327	104	31	61	0	20	1501	0	22	1794	147
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	45	45	45		45	290		45	290	45
Trailing Detector (ft)	-6	-6	-6	-6	-6		-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6		-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51		51	51		51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Perm	NA		Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1		4		1	6		5	2	2 8
Permitted Phases				4								
Detector Phase	8	8	8 1	4	4		1	6		5	2	2 8



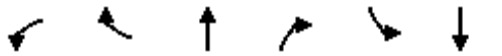
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.5	25.5		8.5	25.5	
Total Split (s)	40.0	40.0		13.0	13.0		11.0	86.0		11.0	86.0	
Total Split (%)	26.7%	26.7%		8.7%	8.7%		7.3%	57.3%		7.3%	57.3%	
Maximum Green (s)	35.0	35.0		8.0	8.0		5.5	80.5		5.5	80.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	6.0		3.0	6.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	33.6	33.6	44.7	8.1	8.1		5.6	88.6		6.0	84.4	118.6
Actuated g/C Ratio	0.22	0.22	0.30	0.05	0.05		0.04	0.59		0.04	0.56	0.79
v/c Ratio	0.85	0.87	0.22	0.50	0.43		0.31	0.72		0.31	0.90	0.12
Control Delay	76.8	78.5	40.5	95.3	26.4		82.9	26.4		63.6	23.0	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.2		0.0	0.6		0.0	0.0	0.0
Total Delay	76.8	78.5	40.5	95.3	26.6		82.9	27.0		63.6	23.0	1.7
LOS	E	E	D	F	C		F	C		E	C	A
Approach Delay		72.5			49.8			27.7			21.8	
Approach LOS		E			D			C			C	
Queue Length 50th (ft)	315	323	76	30	2		19	618		23	982	18
Queue Length 95th (ft)	#475	#489	127	#75	52		50	703		m49	#1066	26
Internal Link Dist (ft)		924			660			2476			389	
Turn Bay Length (ft)	475		475	50			425			130		130
Base Capacity (vph)	392	393	471	62	141		65	2096		70	1992	1266
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	3		0	245		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.82	0.83	0.22	0.50	0.44		0.31	0.81		0.31	0.90	0.12

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 91 (61%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 33.3		Intersection LOS: C	
Intersection Capacity Utilization 79.6%		ICU Level of Service D	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Bluebonnet & Anselmo



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Lane Configurations									
Volume (vph)	323	103	1689	391	132	1541			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	0	100		150	350				
Storage Lanes	2	1		1	1				
Taper Length (ft)	25				25				
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.91			
Frt		0.850		0.850					
Flt Protected	0.950				0.950				
Satd. Flow (prot)	3433	1583	3539	1583	1770	5085			
Flt Permitted	0.950				0.950				
Satd. Flow (perm)	3433	1583	3539	1583	1770	5085			
Right Turn on Red		No		No					
Satd. Flow (RTOR)									
Link Speed (mph)	30		45			45			
Link Distance (ft)	352		390			974			
Travel Time (s)	8.0		5.9			14.8			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95			
Adj. Flow (vph)	340	108	1778	412	139	1622			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	340	108	1778	412	139	1622			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Right	Left	Left			
Median Width(ft)	35		20			20			
Link Offset(ft)	0		0			0			
Crosswalk Width(ft)	16		16			16			
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Turning Speed (mph)	15	9		9	15				
Number of Detectors	1	1	2	1	1	2			
Detector Template									
Leading Detector (ft)	45	45	290	45	45	290			
Trailing Detector (ft)	-6	-6	284	-6	-6	284			
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			
Detector 1 Size(ft)	51	51	51	51	51	51			
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call			
Detector 1 Channel									
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)			284			284			
Detector 2 Size(ft)			6			6			
Detector 2 Type			Extend			Extend			
Detector 2 Channel									
Detector 2 Extend (s)			0.0			0.0			
Turn Type	Prot	pt+ov	NA	pt+ov	Prot	NA			
Protected Phases	4	4 3	1	1 4	3	2	5	7	8
Permitted Phases									
Detector Phase	4	4 3	1	1 4	3	2			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Switch Phase									
Minimum Initial (s)	4.0		24.0		4.0	34.0	4.0	4.0	34.0
Minimum Split (s)	10.0		30.0		10.0	40.0	10.0	22.0	40.0
Total Split (s)	40.0		88.0		22.0	110.0	64.0	46.0	40.0
Total Split (%)	26.7%		58.7%		14.7%	73.3%	43%	31%	27%
Maximum Green (s)	35.0		82.0		16.0	104.0	58.0	40.0	34.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0			
Total Lost Time (s)	5.0		6.0		6.0	6.0			
Lead/Lag			Lag		Lead		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	
Vehicle Extension (s)	2.5		4.3		2.0	4.3	2.5	3.0	4.3
Minimum Gap (s)	0.2		2.2		0.2	2.2	0.2	3.0	2.2
Time Before Reduce (s)	0.0		20.0		0.0	30.0	0.0	0.0	30.0
Time To Reduce (s)	0.0		15.0		0.0	15.0	0.0	0.0	15.0
Recall Mode	None		Min		None	C-Min	Max	None	Min
Walk Time (s)								5.0	
Flash Dont Walk (s)								11.0	
Pedestrian Calls (#/hr)								0	
Act Effct Green (s)	35.0	55.6	83.4	123.4	14.6	104.0			
Actuated g/C Ratio	0.23	0.37	0.56	0.82	0.10	0.69			
v/c Ratio	0.42	0.18	0.90	0.32	0.81	0.46			
Control Delay	30.4	22.6	25.4	5.2	108.3	2.2			
Queue Delay	0.6	0.0	1.7	0.0	0.0	0.0			
Total Delay	31.1	22.6	27.1	5.2	108.3	2.2			
LOS	C	C	C	A	F	A			
Approach Delay	29.0		23.0			10.6			
Approach LOS	C		C			B			
Queue Length 50th (ft)	101	54	885	109	144	68			
Queue Length 95th (ft)	125	85	904	m138	m#231	54			
Internal Link Dist (ft)	272		310			894			
Turn Bay Length (ft)		100		150	350				
Base Capacity (vph)	801	601	1968	1302	188	3525			
Starvation Cap Reductn	193	0	84	0	0	0			
Spillback Cap Reductn	0	0	0	0	0	304			
Storage Cap Reductn	0	0	0	0	0	0			
Reduced v/c Ratio	0.56	0.18	0.94	0.32	0.74	0.50			

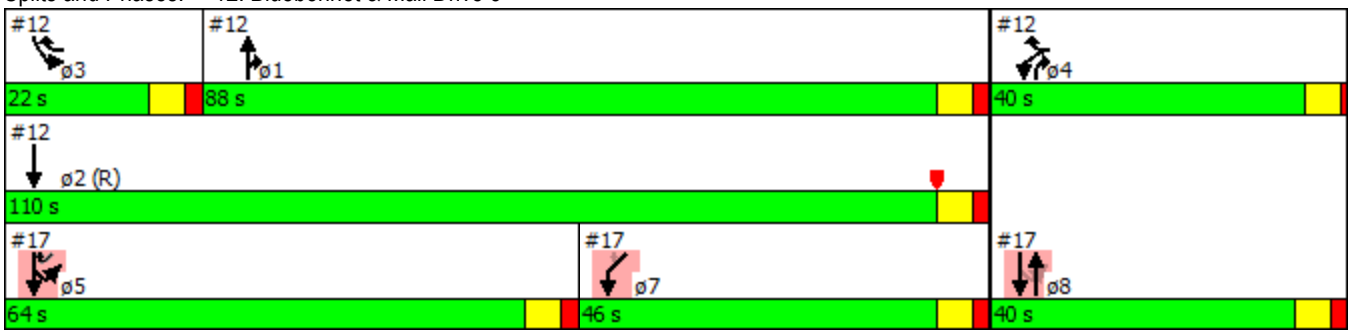
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 98 (65%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 120			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 18.6		Intersection LOS: B	
Intersection Capacity Utilization 77.4%		ICU Level of Service D	

Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

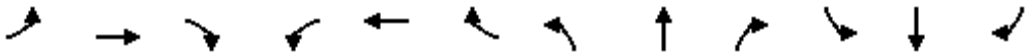
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 12: Bluebonnet & Mall Drive 3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	657	282	219	74	56	79	63	1691	37	213	1380	134
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	140		140	200		200	200		160
Storage Lanes	2		0	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		0.934				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3306	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3306	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		133										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1050			403			974			1065	
Travel Time (s)		23.9			9.2			14.8			16.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	692	297	231	78	59	83	66	1780	39	224	1453	141
Shared Lane Traffic (%)												
Lane Group Flow (vph)	692	528	0	78	59	83	66	1780	39	224	1453	141
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			36			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pt+ov
Protected Phases	3	2		9	8	8 6	1	10	10 9	6	5	5 3
Permitted Phases												
Detector Phase	3	2		9	8	8 6	1	10	10 9	6	5	5 3

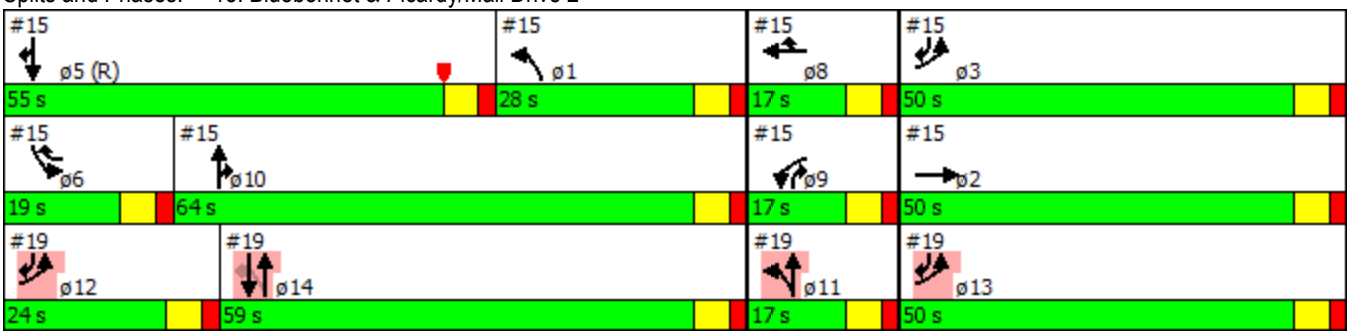
Lane Group	ø11	ø12	ø13	ø14
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	11	12	13	14
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	21.0		3.0	21.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		11.0	27.0		11.0	27.0	
Total Split (s)	50.0	50.0		17.0	17.0		28.0	64.0		19.0	55.0	
Total Split (%)	33.3%	33.3%		11.3%	11.3%		18.7%	42.7%		12.7%	36.7%	
Maximum Green (s)	44.0	44.0		11.0	11.0		22.0	58.0		13.0	49.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.0		1.0	1.0		3.0	4.3		1.0	4.3	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	28.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	15.0	
Recall Mode	None	None		None	None		None	None		None	C-Min	
Act Effct Green (s)	34.9	34.9		8.0	8.0	32.9	22.5	58.2	72.2	24.9	63.1	104.0
Actuated g/C Ratio	0.23	0.23		0.05	0.05	0.22	0.15	0.39	0.48	0.17	0.42	0.69
v/c Ratio	0.87	0.61		0.43	0.31	0.24	0.25	0.90	0.05	0.39	0.68	0.13
Control Delay	67.1	40.4		61.4	57.9	48.0	36.0	26.9	4.3	81.2	14.3	6.0
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.1	40.4		61.4	57.9	48.0	36.0	26.9	4.3	81.2	14.3	6.0
LOS	E	D		E	E	D	D	C	A	F	B	A
Approach Delay		55.6			55.4			26.8			21.9	
Approach LOS		E			E			C			C	
Queue Length 50th (ft)	339	184		41	32	76	42	384	4	86	101	19
Queue Length 95th (ft)	389	231		71	59	128	m58	546	m5	151	191	55
Internal Link Dist (ft)		970			323			894			985	
Turn Bay Length (ft)	150			140		140	200		200	200		160
Base Capacity (vph)	1007	1063		251	259	378	301	1984	784	570	2140	1088
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	30		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.51		0.31	0.23	0.22	0.22	0.90	0.05	0.39	0.68	0.13

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 70 (47%), Referenced to phase 5:SBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 33.1		Intersection LOS: C	
Intersection Capacity Utilization 80.8%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

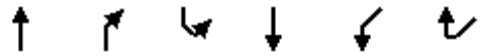
Splits and Phases: 15: Bluebonnet & Picardy/Mall Drive 2



Lane Group	ø11	ø12	ø13	ø14
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	3.0
Minimum Split (s)	10.0	22.0	10.0	9.0
Total Split (s)	17.0	24.0	50.0	59.0
Total Split (%)	11%	16%	33%	39%
Maximum Green (s)	11.0	18.0	44.0	53.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	1.0
Minimum Gap (s)	3.0	3.0	3.0	0.2
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

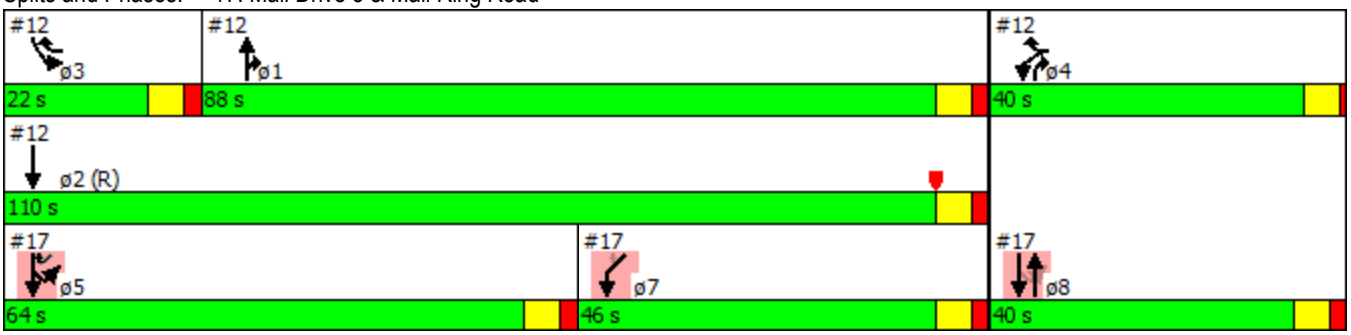
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Lane Configurations										
Volume (vph)	243	211	266	257	207	183				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00				
Frt	0.930					0.850				
Flt Protected			0.950		0.950					
Satd. Flow (prot)	3291	0	1770	1863	1770	1583				
Flt Permitted			0.284		0.950					
Satd. Flow (perm)	3291	0	529	1863	1770	1583				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)	137					199				
Link Speed (mph)	30			30	30					
Link Distance (ft)	797			352	1050					
Travel Time (s)	18.1			8.0	23.9					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Adj. Flow (vph)	264	229	289	279	225	199				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	493	0	289	279	225	199				
Enter Blocked Intersection	No	No	No	No	No	No				
Lane Alignment	Left	Right	Left	Left	Left	Right				
Median Width(ft)	0			12	12					
Link Offset(ft)	0			0	0					
Crosswalk Width(ft)	16			16	16					
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)		9	15		15	9				
Number of Detectors	2		1	2	1	1				
Detector Template	Thru		Left	Thru	Left	Right				
Leading Detector (ft)	100		20	100	20	20				
Trailing Detector (ft)	0		0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0				
Detector 1 Size(ft)	6		20	6	20	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel										
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0				
Detector 2 Position(ft)	94			94						
Detector 2 Size(ft)	6			6						
Detector 2 Type	Cl+Ex			Cl+Ex						
Detector 2 Channel										
Detector 2 Extend (s)	0.0			0.0						
Turn Type	NA		D.P+P	NA	Prot	pm+ov				
Protected Phases	8		5	5 8	7	5	1	2	3	4
Permitted Phases			8			7				
Detector Phase	8		5	5 8	7	5				
Switch Phase										
Minimum Initial (s)	34.0		4.0		4.0	4.0	24.0	34.0	4.0	4.0
Minimum Split (s)	40.0		10.0		22.0	10.0	30.0	40.0	10.0	10.0

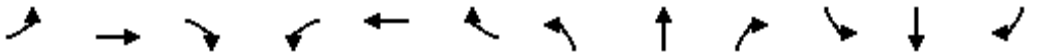


Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Total Split (s)	40.0		64.0		46.0	64.0	88.0	110.0	22.0	40.0
Total Split (%)	26.7%		42.7%		30.7%	42.7%	59%	73%	15%	27%
Maximum Green (s)	34.0		58.0		40.0	58.0	82.0	104.0	16.0	35.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0		2.0	2.0	2.0	2.0	2.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0				
Total Lost Time (s)	6.0		6.0		6.0	6.0				
Lead/Lag			Lead		Lag	Lead	Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	Yes				
Vehicle Extension (s)	4.3		2.5		3.0	2.5	4.3	4.3	2.0	2.5
Minimum Gap (s)	2.2		0.2		3.0	0.2	2.2	2.2	0.2	0.2
Time Before Reduce (s)	30.0		0.0		0.0	0.0	20.0	30.0	0.0	0.0
Time To Reduce (s)	15.0		0.0		0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	Min		Max		None	Max	Min	C-Min	None	None
Walk Time (s)					5.0					
Flash Dont Walk (s)					11.0					
Pedestrian Calls (#/hr)					0					
Act Effct Green (s)	34.0		98.8	104.8	33.2	104.0				
Actuated g/C Ratio	0.23		0.66	0.70	0.22	0.69				
v/c Ratio	0.58		0.33	0.21	0.58	0.17				
Control Delay	39.7		14.2	9.7	28.8	0.3				
Queue Delay	0.0		0.4	0.7	0.0	0.0				
Total Delay	39.7		14.7	10.4	28.8	0.3				
LOS	D		B	B	C	A				
Approach Delay	39.7			12.6	15.4					
Approach LOS	D			B	B					
Queue Length 50th (ft)	164		102	97	115	0				
Queue Length 95th (ft)	226		146	141	257	0				
Internal Link Dist (ft)	717			272	970					
Turn Bay Length (ft)										
Base Capacity (vph)	851		885	1302	472	1158				
Starvation Cap Reductn	0		252	711	0	0				
Spillback Cap Reductn	0		0	0	0	0				
Storage Cap Reductn	0		0	0	0	0				
Reduced v/c Ratio	0.58		0.46	0.47	0.48	0.17				

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 98 (65%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 120			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 22.4		Intersection LOS: C	
Intersection Capacity Utilization 69.5%		ICU Level of Service C	
Analysis Period (min) 15			

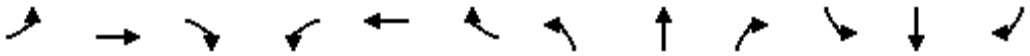
Splits and Phases: 17: Mall Drive 3 & Mall Ring Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	132	2257	38	222	1572	181	0	0	442	247	15	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		200	300		100	0		0	65		0
Storage Lanes	1		1	2		1	0		2	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.863	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1608	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1608	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			65			22			274		99	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1065			834			318			371	
Travel Time (s)		16.1			12.6			7.2			8.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	139	2376	40	234	1655	191	0	0	465	260	16	163
Shared Lane Traffic (%)												
Lane Group Flow (vph)	139	2376	40	234	1655	191	0	0	465	260	179	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1			1	1	1	
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45			45	45	45	
Trailing Detector (ft)	-6	284	-6	-6	284	-6			-6	-6	-6	
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			-6	-6	-6	
Detector 1 Size(ft)	51	51	51	51	51	51			51	51	51	
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA	Perm	Prot	NA	custom			Over	Perm	NA	
Protected Phases	1	7 17		5	4	2			5		2	
Permitted Phases			7 17			4				2		
Detector Phase	1	7 17	7 17	5	4	2			5	2	2	

Lane Group	ø7	ø8	ø9	ø10	ø11	ø17
Lane Configurations						
Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	7	8	9	10	11	17
Permitted Phases						
Detector Phase						



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0			4.0	14.0	4.0			4.0	4.0	4.0	
Minimum Split (s)	10.0			10.0	20.0	10.0			10.0	10.0	10.0	
Total Split (s)	11.0			22.0	89.0	50.0			22.0	50.0	50.0	
Total Split (%)	7.3%			14.7%	59.3%	33.3%			14.7%	33.3%	33.3%	
Maximum Green (s)	5.0			16.0	83.0	44.0			16.0	44.0	44.0	
Yellow Time (s)	4.0			4.0	4.0	4.0			4.0	4.0	4.0	
All-Red Time (s)	2.0			2.0	2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	6.0			6.0	6.0	6.0			6.0	6.0	6.0	
Lead/Lag	Lag			Lag	Lead				Lag			
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5			2.5	4.3	2.0			2.5	2.0	2.0	
Minimum Gap (s)	0.2			0.2	2.2	0.2			0.2	0.2	0.2	
Time Before Reduce (s)	0.0			0.0	34.0	0.0			0.0	0.0	0.0	
Time To Reduce (s)	0.0			0.0	15.0	0.0			0.0	0.0	0.0	
Recall Mode	None			None	C-Min	None			None	None	None	
Act Effct Green (s)	39.0	84.4	84.4	14.6	66.0	99.0			14.6	27.0	27.0	
Actuated g/C Ratio	0.26	0.56	0.56	0.10	0.44	0.66			0.10	0.18	0.18	
v/c Ratio	0.30	0.83	0.04	0.70	0.74	0.18			0.90	0.82	0.48	
Control Delay	32.1	17.0	0.7	71.4	32.0	7.2			48.3	78.4	27.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			0.3	0.0	0.0	
Total Delay	32.1	17.0	0.7	71.4	32.0	7.2			48.6	78.4	27.5	
LOS	C	B	A	E	C	A			D	E	C	
Approach Delay		17.6			34.2						57.7	
Approach LOS		B			C						E	
Queue Length 50th (ft)	84	567	1	121	481	39			111	248	69	
Queue Length 95th (ft)	m132	586	m1	m163	530	m38			#209	328	137	
Internal Link Dist (ft)		985			754			238			291	
Turn Bay Length (ft)	140		200	300		100				65		
Base Capacity (vph)	459	2859	918	366	2813	1052			542	519	541	
Starvation Cap Reductn	0	0	0	0	0	0			4	0	0	
Spillback Cap Reductn	0	0	0	0	0	0			0	0	0	
Storage Cap Reductn	0	0	0	0	0	0			0	0	0	
Reduced v/c Ratio	0.30	0.83	0.04	0.64	0.59	0.18			0.86	0.50	0.33	

Intersection Summary

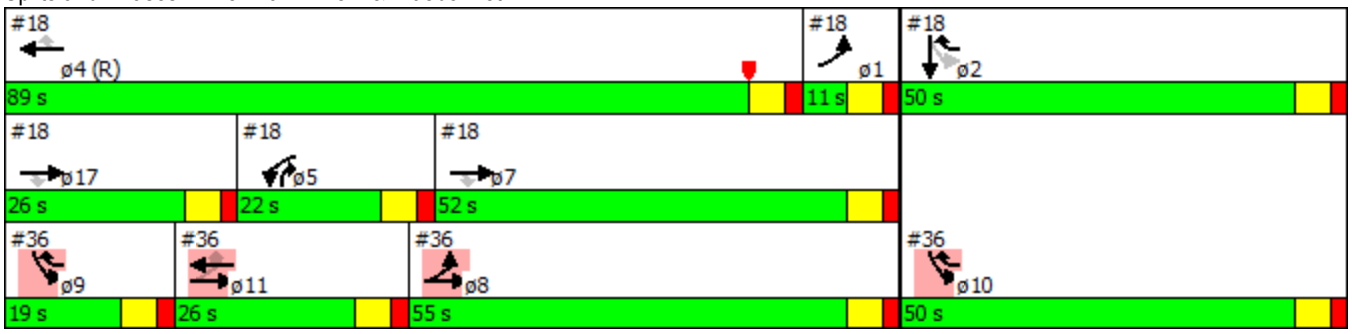
Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 103 (69%), Referenced to phase 4:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 29.6 Intersection LOS: C
Intersection Capacity Utilization 87.8% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

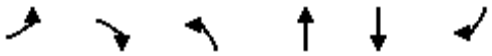
Lane Group	ø7	ø8	ø9	ø10	ø11	ø17
Switch Phase						
Minimum Initial (s)	14.0	4.0	4.0	4.0	14.0	4.0
Minimum Split (s)	20.0	22.0	10.0	22.0	20.0	10.0
Total Split (s)	52.0	55.0	19.0	50.0	26.0	26.0
Total Split (%)	35%	37%	13%	33%	17%	17%
Maximum Green (s)	46.0	49.0	13.0	44.0	20.0	20.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag			Lead		Lag	Lead
Lead-Lag Optimize?			Yes			Yes
Vehicle Extension (s)	4.3	3.0	3.0	3.0	4.3	4.3
Minimum Gap (s)	2.2	3.0	3.0	3.0	2.2	2.2
Time Before Reduce (s)	0.0	0.0	0.0	0.0	34.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	15.0	0.0
Recall Mode	None	None	None	None	None	Max
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 18: Mall Drive 1 & Bluebonnet





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Lane Configurations												
Volume (vph)	323	209	145	332	181	64						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Frt		0.850				0.850						
Flt Protected	0.950		0.950									
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583						
Flt Permitted	0.950		0.582									
Satd. Flow (perm)	1770	1583	1084	1863	1863	1583						
Right Turn on Red		Yes				Yes						
Satd. Flow (RTOR)		171				70						
Link Speed (mph)	30			30	30							
Link Distance (ft)	403			1050	819							
Travel Time (s)	9.2			23.9	18.6							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	351	227	158	361	197	70						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	351	227	158	361	197	70						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Right	Left	Left	Left	Right						
Median Width(ft)	36			12	0							
Link Offset(ft)	0			0	0							
Crosswalk Width(ft)	16			16	16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15	9	15			9						
Number of Detectors	1	1	1	2	2	1						
Detector Template	Left	Right	Left	Thru	Thru	Right						
Leading Detector (ft)	20	20	20	100	100	20						
Trailing Detector (ft)	0	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0	0						
Detector 1 Size(ft)	20	20	20	6	6	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)				94	94							
Detector 2 Size(ft)				6	6							
Detector 2 Type				Cl+Ex	Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)				0.0	0.0							
Turn Type	Prot	Free	D.P+P	NA	NA	pm+ov						
Protected Phases	12 13		11	11 14	14	12 13	1	2	3	5	6	8
Permitted Phases		Free	14			14						
Detector Phase	12 13		11	11 14	14	12 13						
Switch Phase												
Minimum Initial (s)			4.0		3.0		3.0	3.0	3.0	21.0	3.0	3.0
Minimum Split (s)			10.0		9.0		11.0	9.0	9.0	27.0	11.0	9.0

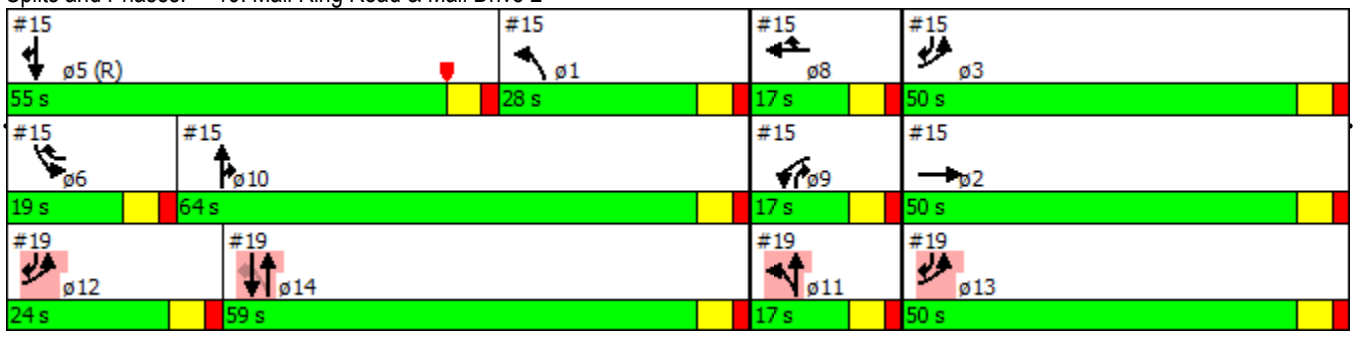
Lane Group	ø9	ø10	ø12	ø13
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	9	10	12	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	21.0	4.0	4.0
Minimum Split (s)	9.0	27.0	22.0	10.0

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Total Split (s)			17.0		59.0		28.0	50.0	50.0	55.0	19.0	17.0
Total Split (%)			11.3%		39.3%		19%	33%	33%	37%	13%	11%
Maximum Green (s)			11.0		53.0		22.0	44.0	44.0	49.0	13.0	11.0
Yellow Time (s)			4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)			2.0		2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0		0.0							
Total Lost Time (s)			6.0		6.0							
Lead/Lag					Lag		Lag			Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0		1.0		3.0	1.0	1.5	4.3	1.0	1.0
Minimum Gap (s)			3.0		0.2		0.2	0.2	0.2	2.2	0.2	0.2
Time Before Reduce (s)			0.0		0.0		0.0	0.0	0.0	28.0	0.0	0.0
Time To Reduce (s)			0.0		0.0		0.0	0.0	0.0	15.0	0.0	0.0
Recall Mode			None		None		None	None	None	C-Min	None	None
Act Effct Green (s)	64.6	150.0	67.4	73.4	59.4	130.0						
Actuated g/C Ratio	0.43	1.00	0.45	0.49	0.40	0.87						
v/c Ratio	0.46	0.14	0.30	0.40	0.27	0.05						
Control Delay	24.3	0.2	39.0	42.0	23.8	0.1						
Queue Delay	0.6	0.0	0.0	0.0	0.0	0.0						
Total Delay	25.0	0.2	39.0	42.0	23.8	0.1						
LOS	C	A	D	D	C	A						
Approach Delay	15.2			41.1	17.6							
Approach LOS	B			D	B							
Queue Length 50th (ft)	89	0	123	320	182	0						
Queue Length 95th (ft)	319	0	187	439	119	0						
Internal Link Dist (ft)	323			970	739							
Turn Bay Length (ft)												
Base Capacity (vph)	768	1583	558	948	737	1372						
Starvation Cap Reductn	162	0	0	0	0	0						
Spillback Cap Reductn	0	0	0	0	0	0						
Storage Cap Reductn	0	0	0	0	0	0						
Reduced v/c Ratio	0.58	0.14	0.28	0.38	0.27	0.05						

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 70 (47%), Referenced to phase 5:SBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 25.5 Intersection LOS: C
Intersection Capacity Utilization 50.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 19: Mall Ring Road & Mall Drive 2

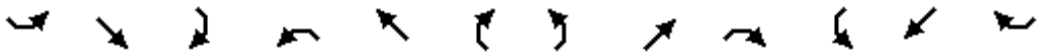


Lane Group	ø9	ø10	ø12	ø13
Total Split (s)	17.0	64.0	24.0	50.0
Total Split (%)	11%	43%	16%	33%
Maximum Green (s)	11.0	58.0	18.0	44.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?			Yes	
Vehicle Extension (s)	1.0	4.3	3.0	3.0
Minimum Gap (s)	0.2	0.2	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	224	1	689	0	0	0	0	2377	568	666	1287	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		375	0		0	400		0	300		0
Storage Lanes	1		1	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.88	1.00	1.00	1.00	1.00	0.86	1.00	0.97	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950	0.953								0.950		
Satd. Flow (prot)	1681	1686	2787	0	0	0	0	6408	1583	3433	3539	0
Flt Permitted	0.950	0.953								0.950		
Satd. Flow (perm)	1681	1686	2787	0	0	0	0	6408	1583	3433	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			51						376			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1072			1024			834			410	
Travel Time (s)		24.4			23.3			12.6			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	236	1	725	0	0	0	0	2502	598	701	1355	0
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	118	119	725	0	0	0	0	2502	598	701	1355	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			37	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					2	1	1	2	
Detector Template												
Leading Detector (ft)	45	45	45					290	45	45	290	
Trailing Detector (ft)	-6	-6	-6					284	-6	-6	284	
Detector 1 Position(ft)	-6	-6	-6					-6	-6	-6	-6	
Detector 1 Size(ft)	51	51	51					51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	custom					NA	Perm	Prot	NA	
Protected Phases	4	4	4 14					2		1	12	
Permitted Phases									2			
Detector Phase	4	4	4 14					2	2	1	12	

Lane Group	ø5	ø6	ø8	ø14	ø16	ø18
Lane Configurations						
Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	5	6	8	14	16	18
Permitted Phases						
Detector Phase						



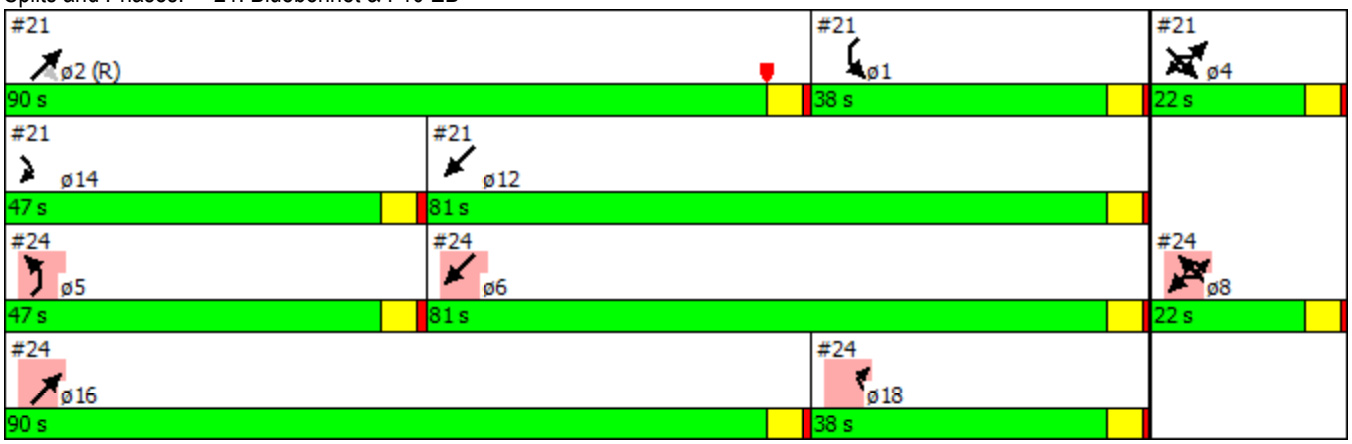
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)	3.0	3.0						10.0	10.0	3.0	10.0	
Minimum Split (s)	18.0	18.0						20.0	20.0	8.0	20.0	
Total Split (s)	22.0	22.0						90.0	90.0	38.0	81.0	
Total Split (%)	14.7%	14.7%						60.0%	60.0%	25.3%	54.0%	
Maximum Green (s)	17.0	17.0						85.0	85.0	33.0	76.0	
Yellow Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0	2.0	2.0	6.0	
Recall Mode	None	None						C-Max	C-Max	None	Max	
Act Effct Green (s)	17.0	17.0	64.0					85.0	85.0	33.0	76.0	
Actuated g/C Ratio	0.11	0.11	0.43					0.57	0.57	0.22	0.51	
v/c Ratio	0.62	0.62	0.60					0.69	0.56	0.93	0.76	
Control Delay	78.5	78.6	32.9					20.3	7.9	43.6	9.4	
Queue Delay	0.0	0.0	0.0					0.5	0.5	19.4	1.4	
Total Delay	78.5	78.6	32.9					20.8	8.4	62.9	10.8	
LOS	E	E	C					C	A	E	B	
Approach Delay		44.2						18.4			28.6	
Approach LOS		D						B			C	
Queue Length 50th (ft)	117	118	286					399	112	340	79	
Queue Length 95th (ft)	192	193	360					559	m167	m#432	131	
Internal Link Dist (ft)		992			944			754			330	
Turn Bay Length (ft)	375		375							300		
Base Capacity (vph)	190	191	1218					3631	1059	755	1793	
Starvation Cap Reductn	0	0	0					569	161	74	245	
Spillback Cap Reductn	0	0	0					140	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.62	0.62	0.60					0.82	0.67	1.03	0.88	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 4 (3%), Referenced to phase 2:NET, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 25.9		Intersection LOS: C	
Intersection Capacity Utilization 83.7%		ICU Level of Service E	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: Bluebonnet & I-10 EB

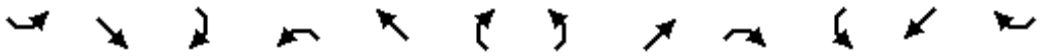


Lane Group	ø5	ø6	ø8	ø14	ø16	ø18
Switch Phase						
Minimum Initial (s)	3.0	10.0	3.0	3.0	10.0	3.0
Minimum Split (s)	8.0	20.0	18.0	8.0	20.0	18.0
Total Split (s)	47.0	81.0	22.0	47.0	90.0	38.0
Total Split (%)	31%	54%	15%	31%	60%	25%
Maximum Green (s)	42.0	76.0	17.0	42.0	85.0	33.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?						
Vehicle Extension (s)	3.5	6.0	2.0	3.5	2.0	2.0
Recall Mode	Max	Max	None	Max	Max	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	0	0	167	4	420	815	1786	0	0	1786	328
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		525	300		0	575		575
Storage Lanes	0		0	1		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.95	1.00	1.00	0.91	0.91
Frt						0.850					0.977	
Flt Protected				0.950	0.954		0.950					
Satd. Flow (prot)	0	0	0	1681	1688	1583	3433	3539	0	0	4968	0
Flt Permitted				0.950	0.954		0.950					
Satd. Flow (perm)	0	0	0	1681	1688	1583	3433	3539	0	0	4968	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						51					36	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		894			1008			410			866	
Travel Time (s)		20.3			22.9			6.2			13.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	176	4	442	858	1880	0	0	1880	345
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	0	0	90	90	442	858	1880	0	0	2225	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			40			50	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			2	
Detector Template												
Leading Detector (ft)				45	45	45	45	290			290	
Trailing Detector (ft)				-6	-6	-6	-6	284			284	
Detector 1 Position(ft)				-6	-6	-6	-6	-6			-6	
Detector 1 Size(ft)				51	51	51	51	51			51	
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call			Call	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type				Split	NA	custom	Prot	NA			NA	
Protected Phases				8	8	8 18	5	16			6	
Permitted Phases												
Detector Phase				8	8	8 18	5	16			6	

Lane Group	ø1	ø2	ø4	ø12	ø14	ø18
Lane Configurations						
Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	1	2	4	12	14	18
Permitted Phases						
Detector Phase						

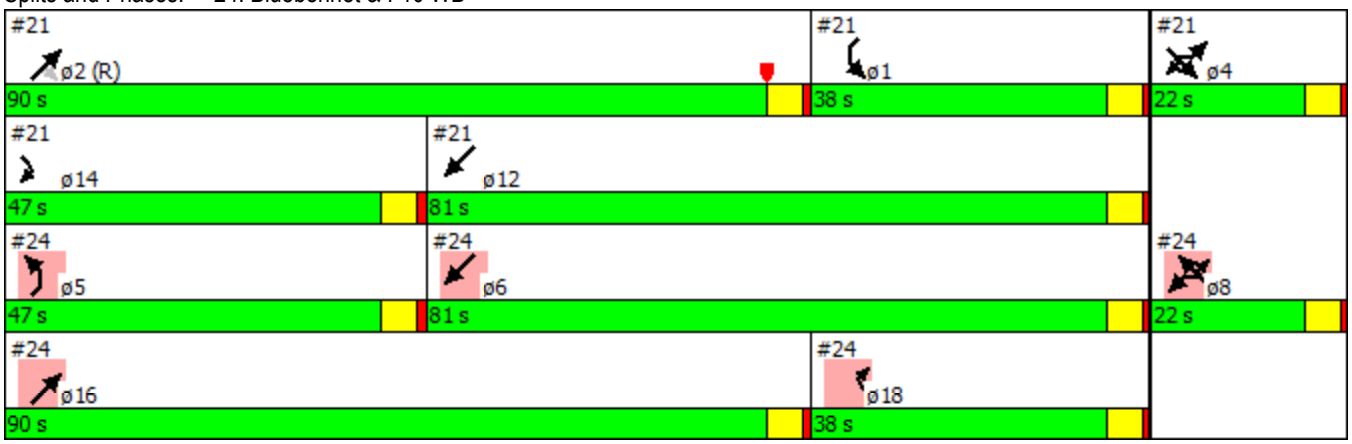


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)				3.0	3.0		3.0	10.0			10.0	
Minimum Split (s)				18.0	18.0		8.0	20.0			20.0	
Total Split (s)				22.0	22.0		47.0	90.0			81.0	
Total Split (%)				14.7%	14.7%		31.3%	60.0%			54.0%	
Maximum Green (s)				17.0	17.0		42.0	85.0			76.0	
Yellow Time (s)				4.0	4.0		4.0	4.0			4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				5.0	5.0		5.0	5.0			5.0	
Lead/Lag							Lead	Lead			Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0		3.5	2.0			6.0	
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)				17.0	17.0	55.0	42.0	85.0			76.0	
Actuated g/C Ratio				0.11	0.11	0.37	0.28	0.57			0.51	
v/c Ratio				0.47	0.47	0.72	0.89	0.94			0.88	
Control Delay				71.3	71.2	43.8	49.3	17.5			37.7	
Queue Delay				0.0	0.0	0.0	23.5	16.3			1.7	
Total Delay				71.3	71.2	43.9	72.8	33.8			39.4	
LOS				E	E	D	E	C			D	
Approach Delay					51.8			46.0			39.4	
Approach LOS					D			D			D	
Queue Length 50th (ft)				88	88	332	280	967			775	
Queue Length 95th (ft)				151	151	469	#469	#1074			m801	
Internal Link Dist (ft)		814			928			330			786	
Turn Bay Length (ft)						525	300					
Base Capacity (vph)				190	191	612	961	2005			2534	
Starvation Cap Reductn				0	0	0	134	0			147	
Spillback Cap Reductn				0	0	2	0	178			168	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.47	0.47	0.72	1.04	1.03			0.94	

Intersection Summary

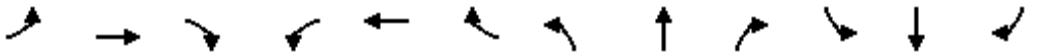
Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 4 (3%), Referenced to phase 2:NET, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 44.0 Intersection LOS: D
Intersection Capacity Utilization 83.7% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 24: Bluebonnet & I-10 WB

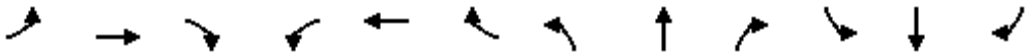


Lane Group	ø1	ø2	ø4	ø12	ø14	ø18
Switch Phase						
Minimum Initial (s)	3.0	10.0	3.0	10.0	3.0	3.0
Minimum Split (s)	8.0	20.0	18.0	20.0	8.0	18.0
Total Split (s)	38.0	90.0	22.0	81.0	47.0	38.0
Total Split (%)	25%	60%	15%	54%	31%	25%
Maximum Green (s)	33.0	85.0	17.0	76.0	42.0	33.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lead		Lag	Lead	Lag
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	2.0	6.0	3.5	2.0
Recall Mode	None	C-Max	None	Max	Max	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	107	18	106	609	92	210	47	1949	210	43	1399	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		200	300		175	175		175
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.872			0.938	0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3086	0	3433	1660	1504	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.078			0.048		
Satd. Flow (perm)	1770	3086	0	3433	1660	1504	145	3539	1583	89	3539	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		84										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		475			1072			866			1049	
Travel Time (s)		10.8			24.4			13.1			15.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	113	19	112	641	97	221	49	2052	221	45	1473	15
Shared Lane Traffic (%)						31%						
Lane Group Flow (vph)	113	131	0	641	166	152	49	2052	221	45	1473	15
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		60			60			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4		3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases							2			6		
Detector Phase	7	4		3	8	8 1	5	2	2 3	1	6	6 7



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	4.1		5.0	3.0		3.0	20.0		3.4	20.0	
Minimum Split (s)	8.9	10.0		10.9	8.9		9.6	26.6		10.0	26.6	
Total Split (s)	18.0	13.0		31.0	26.0		12.0	95.0		11.0	94.0	
Total Split (%)	12.0%	8.7%		20.7%	17.3%		8.0%	63.3%		7.3%	62.7%	
Maximum Green (s)	12.1	7.1		25.1	20.1		5.4	88.4		4.4	87.4	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	0.9	0.9		0.9	0.9		1.6	1.6		1.6	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.9	5.9		5.9	5.9		6.6	6.6		6.6	6.6	
Lead/Lag	Lead	Lead		Lag	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		2.5	1.5		1.5	5.0		1.5	5.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	11.5	6.0		26.2	20.7	25.8	88.4	88.4	120.5	89.9	89.9	107.2
Actuated g/C Ratio	0.08	0.04		0.17	0.14	0.17	0.59	0.59	0.80	0.60	0.60	0.71
v/c Ratio	0.84	0.64		1.07	0.72	0.59	0.35	0.98	0.17	0.44	0.69	0.01
Control Delay	111.0	42.5		113.6	80.7	60.0	9.6	23.9	1.8	44.6	19.5	4.9
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.2	0.0
Total Delay	111.0	42.6		113.6	80.7	60.0	9.6	30.9	1.8	44.6	19.7	4.9
LOS	F	D		F	F	E	A	C	A	D	B	A
Approach Delay		74.3			99.4			27.7			20.3	
Approach LOS		E			F			C			C	
Queue Length 50th (ft)	111	24		~362	167	116	9	732	22	17	542	2
Queue Length 95th (ft)	#218	61		#495	#281	184	m11	#1196	m23	35	413	m5
Internal Link Dist (ft)		395			992			786			969	
Turn Bay Length (ft)	75			200		200	300		175	175		175
Base Capacity (vph)	142	226		600	229	258	143	2085	1272	102	2120	1138
Starvation Cap Reductn	0	0		0	0	0	0	62	0	0	0	0
Spillback Cap Reductn	0	1		0	0	0	0	0	0	0	153	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.58		1.07	0.72	0.59	0.34	1.01	0.17	0.44	0.75	0.01

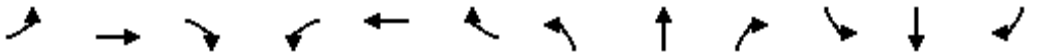
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 15 (10%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 140			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.07			
Intersection Signal Delay: 41.3		Intersection LOS: D	
Intersection Capacity Utilization 90.5%		ICU Level of Service E	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

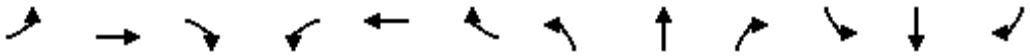
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 27: Bluebonnet & Blue Cross



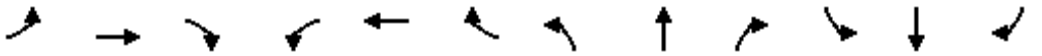
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	1	17	38	0	4	36	2213	17	2	1401	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		130	150		185
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.922			0.988				0.850			0.850
Flt Protected		0.981			0.957		0.950			0.950		
Satd. Flow (prot)	0	1685	0	0	1761	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.892			0.723		0.166			0.054		
Satd. Flow (perm)	0	1532	0	0	1331	0	309	3539	1583	101	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			22				22			22
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1129			1330			1049			1811	
Travel Time (s)		25.7			30.2			15.9			27.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	12	1	18	40	0	4	38	2329	18	2	1475	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	31	0	0	44	0	38	2329	18	2	1475	9
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



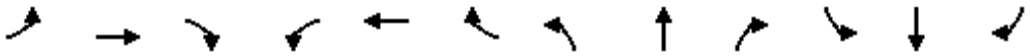
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	11.0	11.0		11.0	11.0		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	30.0	30.0		30.0	30.0		120.0	120.0	120.0	120.0	120.0	120.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		80.0%	80.0%	80.0%	80.0%	80.0%	80.0%
Maximum Green (s)	24.0	24.0		24.0	24.0		114.0	114.0	114.0	114.0	114.0	114.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		8.0			8.0		133.4	133.4	133.4	133.4	133.4	133.4
Actuated g/C Ratio		0.05			0.05		0.89	0.89	0.89	0.89	0.89	0.89
v/c Ratio		0.31			0.48		0.14	0.74	0.01	0.02	0.47	0.01
Control Delay		44.8			56.8		1.1	2.1	0.1	2.5	2.4	0.2
Queue Delay		0.0			0.0		0.0	0.4	0.0	0.0	0.0	0.0
Total Delay		44.8			56.8		1.1	2.5	0.1	2.5	2.4	0.2
LOS		D			E		A	A	A	A	A	A
Approach Delay		44.8			56.8			2.5			2.4	
Approach LOS		D			E			A			A	
Queue Length 50th (ft)		12			21		2	61	0	0	121	0
Queue Length 95th (ft)		47			63		m2	m86	m0	m1	154	m0
Internal Link Dist (ft)		1049			1250			969			1731	
Turn Bay Length (ft)							150		130	150		185
Base Capacity (vph)		260			231		274	3147	1410	89	3147	1410
Starvation Cap Reductn		0			0		0	333	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.12			0.19		0.14	0.83	0.01	0.02	0.47	0.01

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 46 (31%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 3.4		Intersection LOS: A	
Intersection Capacity Utilization 76.1%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 30: Bluebonnet & Gail



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	10	84	22	4	6	198	1929	101	12	1305	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.892			0.975				0.850			0.850
Flt Protected		0.995			0.966		0.950			0.950		
Satd. Flow (prot)	0	1653	0	0	1754	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.959			0.395		0.185			0.082		
Satd. Flow (perm)	0	1593	0	0	717	0	345	3539	1583	153	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		88			6				69			36
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1794			2049			1811			2409	
Travel Time (s)		40.8			46.6			27.4			36.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	11	88	23	4	6	208	2031	106	13	1374	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	110	0	0	33	0	208	2031	106	13	1374	37
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6

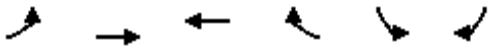


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	9.2	9.2		9.2	9.2		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	30.0	30.0		30.0	30.0		120.0	120.0	120.0	120.0	120.0	120.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		80.0%	80.0%	80.0%	80.0%	80.0%	80.0%
Maximum Green (s)	23.8	23.8		23.8	23.8		114.0	114.0	114.0	114.0	114.0	114.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.2	1.2		1.2	1.2		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.2			6.2		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		8.6			8.6		129.2	129.2	129.2	129.2	129.2	129.2
Actuated g/C Ratio		0.06			0.06		0.86	0.86	0.86	0.86	0.86	0.86
v/c Ratio		0.63			0.72		0.70	0.67	0.08	0.10	0.45	0.03
Control Delay		35.3			123.8		15.3	4.4	1.3	3.8	3.1	0.7
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		35.3			123.8		15.3	4.4	1.3	3.8	3.1	0.7
LOS		D			F		B	A	A	A	A	A
Approach Delay		35.3			123.8			5.2			3.0	
Approach LOS		D			F			A			A	
Queue Length 50th (ft)		21			27		28	143	4	1	116	0
Queue Length 95th (ft)		85			#65		m109	227	m13	7	190	6
Internal Link Dist (ft)		1714			1969			1731			2329	
Turn Bay Length (ft)							150		150	150		150
Base Capacity (vph)		326			118		297	3047	1372	131	3047	1368
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.34			0.28		0.70	0.67	0.08	0.10	0.45	0.03

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 46 (31%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 6.3		Intersection LOS: A	
Intersection Capacity Utilization 101.4%		ICU Level of Service G	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 33: Bluebonnet & Oliphant



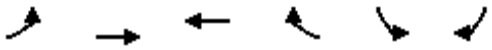
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Lane Configurations												
Volume (vph)	158	497	136	284	166	109						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.95						
Frt				0.850	0.941							
Flt Protected	0.950				0.971							
Satd. Flow (prot)	1770	1863	1863	1583	3302	0						
Flt Permitted	0.552				0.971							
Satd. Flow (perm)	1028	1863	1863	1583	3302	0						
Right Turn on Red				Yes		Yes						
Satd. Flow (RTOR)				309	118							
Link Speed (mph)		30	30		30							
Link Distance (ft)		819	802		318							
Travel Time (s)		18.6	18.2		7.2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	172	540	148	309	180	118						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	172	540	148	309	298	0						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Right	Left	Right						
Median Width(ft)		12	0		36							
Link Offset(ft)		0	0		0							
Crosswalk Width(ft)		16	16		16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15			9	15	9						
Number of Detectors	1	2	2	1	1							
Detector Template	Left	Thru	Thru	Right	Left							
Leading Detector (ft)	20	100	100	20	20							
Trailing Detector (ft)	0	0	0	0	0							
Detector 1 Position(ft)	0	0	0	0	0							
Detector 1 Size(ft)	20	6	6	20	20							
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex							
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0							
Detector 2 Position(ft)		94	94									
Detector 2 Size(ft)		6	6									
Detector 2 Type		Cl+Ex	Cl+Ex									
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0									
Turn Type	D.P+P	NA	NA	pm+ov	Prot							
Protected Phases	8	8 11	11	9 10	9 10		1	2	4	5	7	9
Permitted Phases	11			11								
Detector Phase	8	8 11	11	9 10	9 10							
Switch Phase												
Minimum Initial (s)	4.0		14.0				4.0	4.0	14.0	4.0	14.0	4.0
Minimum Split (s)	22.0		20.0				10.0	10.0	20.0	10.0	20.0	10.0

Lane Group	ø10	ø17
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	10	17
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	4.0	4.0
Minimum Split (s)	22.0	10.0

Lanes, Volumes, Timings
36: Mall Ring Road & Mall Drive 1

2037 Build PM

5/18/2016

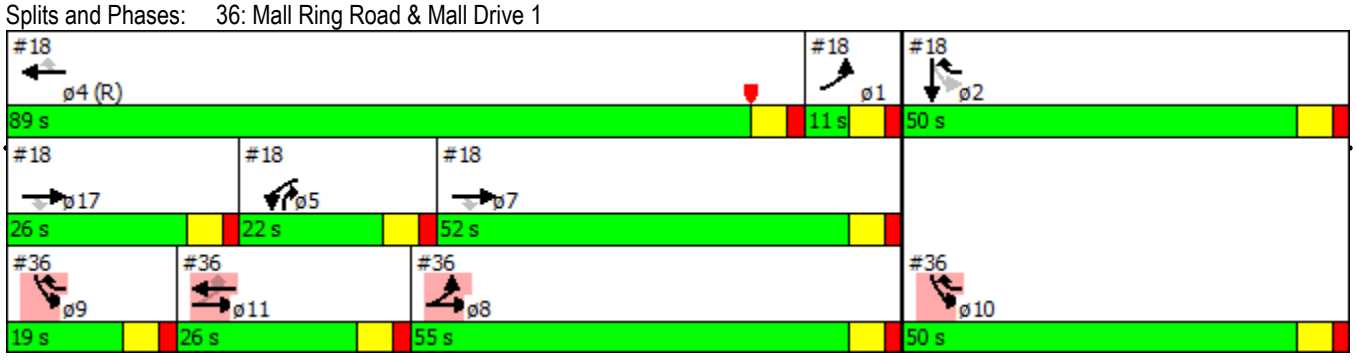


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Total Split (s)	55.0		26.0				11.0	50.0	89.0	22.0	52.0	19.0
Total Split (%)	36.7%		17.3%				7%	33%	59%	15%	35%	13%
Maximum Green (s)	49.0		20.0				5.0	44.0	83.0	16.0	46.0	13.0
Yellow Time (s)	4.0		4.0				4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0				2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0									
Total Lost Time (s)	6.0		6.0									
Lead/Lag			Lag				Lag		Lead	Lag		Lead
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0		4.3				2.5	2.0	4.3	2.5	4.3	3.0
Minimum Gap (s)	3.0		2.2				0.2	0.2	2.2	0.2	2.2	3.0
Time Before Reduce (s)	0.0		34.0				0.0	0.0	34.0	0.0	0.0	0.0
Time To Reduce (s)	0.0		15.0				0.0	0.0	15.0	0.0	0.0	0.0
Recall Mode	None		None				None	None	C-Min	None	None	None
Act Effct Green (s)	93.0	99.0	29.0	74.0	39.0							
Actuated g/C Ratio	0.62	0.66	0.19	0.49	0.26							
v/c Ratio	0.18	0.44	0.41	0.33	0.32							
Control Delay	9.0	10.4	55.3	2.3	50.6							
Queue Delay	0.0	0.3	0.0	0.0	0.6							
Total Delay	9.0	10.7	55.3	2.3	51.1							
LOS	A	B	E	A	D							
Approach Delay		10.3	19.5		51.1							
Approach LOS		B	B		D							
Queue Length 50th (ft)	55	183	127	0	122							
Queue Length 95th (ft)	117	323	192	40	165							
Internal Link Dist (ft)		739	722		238							
Turn Bay Length (ft)												
Base Capacity (vph)	953	1216	362	937	1130							
Starvation Cap Reductn	0	207	0	0	489							
Spillback Cap Reductn	0	0	0	0	0							
Storage Cap Reductn	0	0	0	0	0							
Reduced v/c Ratio	0.18	0.54	0.41	0.33	0.46							

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 103 (69%), Referenced to phase 4:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 21.5 Intersection LOS: C
Intersection Capacity Utilization 44.3% ICU Level of Service A
Analysis Period (min) 15

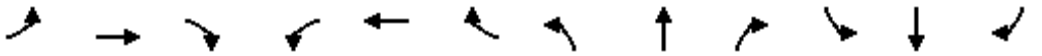
Splits and Phases: 36: Mall Ring Road & Mall Drive 1



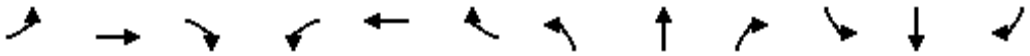
Lane Group	ø10	ø17
Total Split (s)	50.0	26.0
Total Split (%)	33%	17%
Maximum Green (s)	44.0	20.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		Lead
Lead-Lag Optimize?		Yes
Vehicle Extension (s)	3.0	4.3
Minimum Gap (s)	3.0	2.2
Time Before Reduce (s)	0.0	0.0
Time To Reduce (s)	0.0	0.0
Recall Mode	None	Max
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

M.38 2037 BUILD WEEKEND – BLUEBONNET BOULEVARD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	196	787	929	499	932	517	312	695	218	372	675	151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		250	325		375	350		0	250		150
Storage Lanes	2		1	2		1	2		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Frt			0.850			0.850		0.964				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3412	0	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3412	0	3433	3539	1583
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								30				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		2445			3864			2201			709	
Travel Time (s)		37.0			58.5			33.3			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	206	828	978	525	981	544	328	732	229	392	711	159
Shared Lane Traffic (%)												
Lane Group Flow (vph)	206	828	978	525	981	544	328	961	0	392	711	159
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45	45	290		45	290	45
Trailing Detector (ft)	-6	284	-6	-6	284	-6	-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6	-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51	51	51	51		51	51	51
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		284			284			284			284	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Extend			Extend			Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA		Prot	NA	pt+ov
Protected Phases	5	2	2 3	1	6	6 7	3	8		7	4	4 5
Permitted Phases												
Detector Phase	5	2	2 3	1	6	6 7	3	8		7	4	4 5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	10.0		4.0	10.0	
Minimum Split (s)	11.0	34.5		11.0	37.5		11.0	41.0		11.0	41.0	
Total Split (s)	16.0	38.0		25.0	47.0		43.0	58.0		29.0	44.0	
Total Split (%)	10.7%	25.3%		16.7%	31.3%		28.7%	38.7%		19.3%	29.3%	
Maximum Green (s)	9.0	31.5		18.0	40.5		36.0	51.0		22.0	37.0	
Yellow Time (s)	5.0	4.5		5.0	4.5		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	6.5		7.0	6.5		7.0	7.0		7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.3		3.0	4.3		3.0	3.9		3.0	3.9	
Minimum Gap (s)	0.2	2.2		0.2	2.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	15.0		0.0	15.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0		0.0	10.0		0.0	10.0	
Recall Mode	None	Min		None	Min		None	Min		None	C-Min	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		23.0			26.0			29.0			29.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	9.0	31.5	72.2	18.0	40.5	68.6	40.2	51.9		21.1	32.8	41.8
Actuated g/C Ratio	0.06	0.21	0.48	0.12	0.27	0.46	0.27	0.35		0.14	0.22	0.28
v/c Ratio	1.00	1.11	1.28	1.28	1.03	0.75	0.36	0.80		0.81	0.92	0.36
Control Delay	132.6	122.0	161.1	193.0	89.2	41.4	46.7	49.2		65.8	55.3	19.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6		0.0	0.0	0.0
Total Delay	132.6	122.0	161.1	193.0	89.2	41.4	46.7	49.7		65.8	55.3	19.1
LOS	F	F	F	F	F	D	D	D		E	E	B
Approach Delay		142.1			103.1			49.0			54.0	
Approach LOS		F			F			D			D	
Queue Length 50th (ft)	~106	~487	~958	~333	~537	429	136	440		174	361	77
Queue Length 95th (ft)	#195	#621	#1518	#452	#674	585	188	528		230	355	87
Internal Link Dist (ft)		2365			3784			2121			629	
Turn Bay Length (ft)	440		250	325		375	350			250		150
Base Capacity (vph)	205	743	762	411	955	733	920	1200		503	872	485
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	51		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	1.00	1.11	1.28	1.28	1.03	0.74	0.36	0.84		0.78	0.82	0.33

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 88 (59%), Referenced to phase 4:SBT, Start of Yellow			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.28			
Intersection Signal Delay: 95.0		Intersection LOS: F	
Intersection Capacity Utilization 107.5%		ICU Level of Service G	

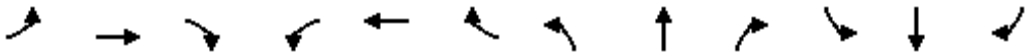
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Bluebonnet & Perkins

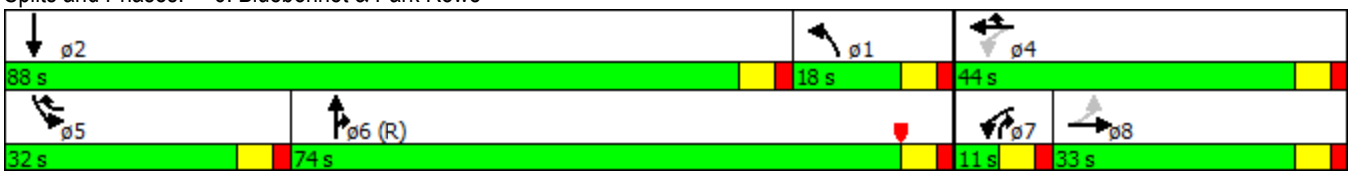
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	155	25	51	51	13	168	67	1264	77	406	1095	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		125	160		160	175		0
Storage Lanes	1		0	0		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.899				0.850			0.850		0.987	
Flt Protected	0.950				0.962		0.950			0.950		
Satd. Flow (prot)	1770	1675	0	0	1792	1583	1770	3539	1583	3433	3493	0
Flt Permitted	0.713				0.626		0.950			0.950		
Satd. Flow (perm)	1328	1675	0	0	1166	1583	1770	3539	1583	3433	3493	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		54									11	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		511			1048			709			2556	
Travel Time (s)		11.6			23.8			10.7			38.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	163	26	54	54	14	177	71	1331	81	427	1153	112
Shared Lane Traffic (%)												
Lane Group Flow (vph)	163	80	0	0	68	177	71	1331	81	427	1265	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	
Detector Template				Left								
Leading Detector (ft)	45	45		20	45	45	45	290	45	45	290	
Trailing Detector (ft)	-6	-6		0	-6	-6	-6	284	-6	-6	284	
Detector 1 Position(ft)	-6	-6		0	-6	-6	-6	-6	-6	-6	-6	
Detector 1 Size(ft)	51	51		20	51	51	51	51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		pm+pt	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	
Protected Phases		8		7	4	4 5	1	6	6 7	5	2	
Permitted Phases	8			4								
Detector Phase	8	8		7	4	4 5	1	6	6 7	5	2	

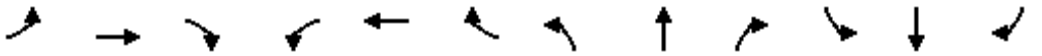


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		3.0	5.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	11.0	11.0		9.0	11.0		9.0	21.0		9.0	21.0	
Total Split (s)	33.0	33.0		11.0	44.0		18.0	74.0		32.0	88.0	
Total Split (%)	22.0%	22.0%		7.3%	29.3%		12.0%	49.3%		21.3%	58.7%	
Maximum Green (s)	27.0	27.0		5.0	38.0		12.0	68.0		26.0	82.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag		Lead			Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		1.5	2.0		1.5	4.0		1.5	4.0	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	2.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	25.0		0.0	25.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	22.1	22.1			32.5	60.7	17.6	77.3	87.7	22.2	84.2	
Actuated g/C Ratio	0.15	0.15			0.22	0.40	0.12	0.52	0.58	0.15	0.56	
v/c Ratio	0.84	0.27			0.25	0.28	0.34	0.73	0.09	0.84	0.64	
Control Delay	94.3	23.5			48.6	29.7	57.8	28.9	14.9	77.3	26.8	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.6	0.0	0.0	0.0	
Total Delay	94.3	23.5			48.6	29.7	57.8	29.5	14.9	77.3	26.8	
LOS	F	C			D	C	E	C	B	E	C	
Approach Delay		71.0			35.0			30.0			39.6	
Approach LOS		E			C			C			D	
Queue Length 50th (ft)	156	22			54	113	54	460	31	211	477	
Queue Length 95th (ft)	236	71			96	157	m76	m552	m0	267	582	
Internal Link Dist (ft)		431			968			629			2476	
Turn Bay Length (ft)	100					125	160		160	175		
Base Capacity (vph)	240	346			313	666	223	1824	932	595	2062	
Starvation Cap Reductn	0	0			0	0	0	181	0	0	0	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.68	0.23			0.22	0.27	0.32	0.81	0.09	0.72	0.61	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 138 (92%), Referenced to phase 6:NBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 37.5		Intersection LOS: D	
Intersection Capacity Utilization 76.8%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Bluebonnet & Park Rowe





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	223	1	84	0	0	2	69	1518	0	1	1523	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	475		475	50		0	425		0	130		130
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.850							0.850
Flt Protected	0.950	0.953					0.950			0.950		
Satd. Flow (prot)	1681	1686	1583	1863	1583	0	1770	3539	0	1770	3539	1583
Flt Permitted	0.950	0.953					0.950			0.950		
Satd. Flow (perm)	1681	1686	1583	1863	1583	0	1770	3539	0	1770	3539	1583
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)					168							
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1004			740			2556			469	
Travel Time (s)		22.8			16.8			38.7			7.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	235	1	88	0	0	2	73	1598	0	1	1603	167
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	117	119	88	0	2	0	73	1598	0	1	1603	167
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	2		1	2	1
Detector Template												
Leading Detector (ft)	45	45	45	45	45		45	290		45	290	45
Trailing Detector (ft)	-6	-6	-6	-6	-6		-6	284		-6	284	-6
Detector 1 Position(ft)	-6	-6	-6	-6	-6		-6	-6		-6	-6	-6
Detector 1 Size(ft)	51	51	51	51	51		51	51		51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Call		Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	pt+ov	Split	NA		Prot	NA		Prot	NA	pt+ov
Protected Phases	8	8	8 1	4	4		1	6		5	2	2 8
Permitted Phases												
Detector Phase	8	8	8 1	4	4		1	6		5	2	2 8

Lanes, Volumes, Timings
9: Bluebonnet & Anselmo

2037 Build Weekend

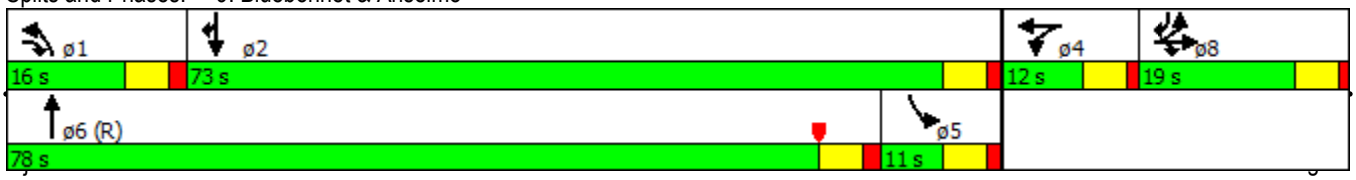
5/18/2016

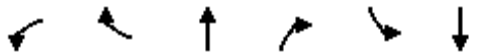
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.5	25.5		8.5	25.5	
Total Split (s)	19.0	19.0		12.0	12.0		16.0	78.0		11.0	73.0	
Total Split (%)	15.8%	15.8%		10.0%	10.0%		13.3%	65.0%		9.2%	60.8%	
Maximum Green (s)	14.0	14.0		7.0	7.0		10.5	72.5		5.5	67.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag							Lead	Lead		Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		3.0	6.0		3.0	6.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	14.9	14.9	30.1		7.3		9.7	90.0		5.6	77.0	95.8
Actuated g/C Ratio	0.12	0.12	0.25		0.06		0.08	0.75		0.05	0.64	0.80
v/c Ratio	0.56	0.57	0.22		0.01		0.51	0.60		0.01	0.71	0.13
Control Delay	60.1	60.5	36.2		0.0		65.4	9.7		43.0	11.1	1.6
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	60.1	60.5	36.2		0.0		65.4	9.7		43.0	11.1	1.6
LOS	E	E	D		A		E	A		D	B	A
Approach Delay		53.7			0.0			12.1			10.2	
Approach LOS		D			A			B			B	
Queue Length 50th (ft)	89	91	53		0		55	226		1	208	6
Queue Length 95th (ft)	158	161	101		0		105	532		m1	246	21
Internal Link Dist (ft)		924			660			2476			389	
Turn Bay Length (ft)	475		475				425			130		130
Base Capacity (vph)	219	219	395		253		159	2654		82	2271	1274
Starvation Cap Reductn	0	0	0		0		0	0		0	29	0
Spillback Cap Reductn	0	0	0		0		0	0		0	0	0
Storage Cap Reductn	0	0	0		0		0	0		0	0	0
Reduced v/c Ratio	0.53	0.54	0.22		0.01		0.46	0.60		0.01	0.71	0.13

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 96 (80%), Referenced to phase 6:NBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 14.8 Intersection LOS: B
Intersection Capacity Utilization 72.1% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Bluebonnet & Anselmo





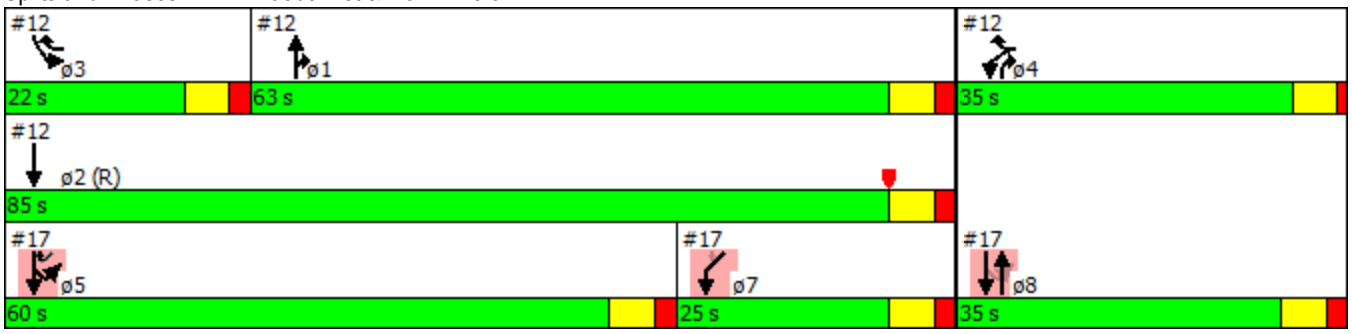
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Lane Configurations									
Volume (vph)	366	178	1109	634	129	1317			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Storage Length (ft)	0	100		150	350				
Storage Lanes	2	1		1	1				
Taper Length (ft)	25				25				
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.91			
Frt		0.850		0.850					
Flt Protected	0.950				0.950				
Satd. Flow (prot)	3433	1583	3539	1583	1770	5085			
Flt Permitted	0.950				0.950				
Satd. Flow (perm)	3433	1583	3539	1583	1770	5085			
Right Turn on Red		No		No					
Satd. Flow (RTOR)									
Link Speed (mph)	30		45			45			
Link Distance (ft)	352		390			974			
Travel Time (s)	8.0		5.9			14.8			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95			
Adj. Flow (vph)	385	187	1167	667	136	1386			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	385	187	1167	667	136	1386			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Right	Left	Left			
Median Width(ft)	35		20			20			
Link Offset(ft)	0		0			0			
Crosswalk Width(ft)	16		16			16			
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Turning Speed (mph)	15	9		9	15				
Number of Detectors	1	1	2	1	1	2			
Detector Template									
Leading Detector (ft)	45	45	290	45	45	290			
Trailing Detector (ft)	-6	-6	284	-6	-6	284			
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			
Detector 1 Size(ft)	51	51	51	51	51	51			
Detector 1 Type	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call			
Detector 1 Channel									
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)			284			284			
Detector 2 Size(ft)			6			6			
Detector 2 Type			Extend			Extend			
Detector 2 Channel									
Detector 2 Extend (s)			0.0			0.0			
Turn Type	Prot	pt+ov	NA	pt+ov	Prot	NA			
Protected Phases	4	4 3	1	1 4	3	2	5	7	8
Permitted Phases									
Detector Phase	4	4 3	1	1 4	3	2			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø5	ø7	ø8
Switch Phase									
Minimum Initial (s)	4.0		24.0		4.0	34.0	4.0	4.0	29.0
Minimum Split (s)	10.0		30.0		10.0	40.0	10.0	22.0	35.0
Total Split (s)	35.0		63.0		22.0	85.0	60.0	25.0	35.0
Total Split (%)	29.2%		52.5%		18.3%	70.8%	50%	21%	29%
Maximum Green (s)	30.0		57.0		16.0	79.0	54.0	19.0	29.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0		2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0			
Total Lost Time (s)	5.0		6.0		6.0	6.0			
Lead/Lag			Lag		Lead		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	
Vehicle Extension (s)	2.5		4.3		2.0	4.3	2.5	3.0	4.3
Minimum Gap (s)	0.2		2.2		0.2	2.2	0.2	3.0	2.2
Time Before Reduce (s)	0.0		20.0		0.0	30.0	0.0	0.0	30.0
Time To Reduce (s)	0.0		15.0		0.0	15.0	0.0	0.0	15.0
Recall Mode	None		Min		None	C-Min	Max	None	Min
Walk Time (s)								5.0	
Flash Dont Walk (s)								11.0	
Pedestrian Calls (#/hr)								0	
Act Effct Green (s)	30.0	49.1	59.9	94.9	13.1	79.0			
Actuated g/C Ratio	0.25	0.41	0.50	0.79	0.11	0.66			
v/c Ratio	0.45	0.29	0.66	0.53	0.70	0.41			
Control Delay	20.4	9.3	20.0	6.7	86.8	2.0			
Queue Delay	0.0	0.7	0.0	0.0	0.0	0.0			
Total Delay	20.4	10.0	20.0	6.7	86.8	2.0			
LOS	C	A	B	A	F	A			
Approach Delay	17.0		15.1			9.6			
Approach LOS	B		B			A			
Queue Length 50th (ft)	79	65	377	256	113	34			
Queue Length 95th (ft)	100	57	236	170	180	39			
Internal Link Dist (ft)	272		310			894			
Turn Bay Length (ft)		100		150	350				
Base Capacity (vph)	858	685	1766	1251	236	3347			
Starvation Cap Reductn	0	259	0	0	0	0			
Spillback Cap Reductn	0	0	0	0	0	0			
Storage Cap Reductn	0	0	0	0	0	0			
Reduced v/c Ratio	0.45	0.44	0.66	0.53	0.58	0.41			

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 93 (78%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 13.3		Intersection LOS: B	
Intersection Capacity Utilization 62.4%		ICU Level of Service B	

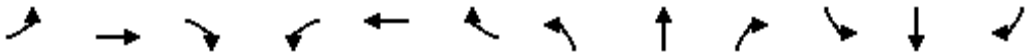
Analysis Period (min) 15

Splits and Phases: 12: Bluebonnet & Mall Drive 3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	112	51	61	106	48	257	63	1113	110	376	1278	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	140		140	200		200	200		160
Storage Lanes	2		0	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt		0.919				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3253	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3253	0	3433	3539	1583	1770	5085	1583	3433	5085	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		64										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1050			403			974			1065	
Travel Time (s)		23.9			9.2			14.8			16.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	118	54	64	112	51	271	66	1172	116	396	1345	105
Shared Lane Traffic (%)												
Lane Group Flow (vph)	118	118	0	112	51	271	66	1172	116	396	1345	105
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			36			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pt+ov
Protected Phases	3	2		9	8	8 6	1	10	10 9	6	5	5 3
Permitted Phases												
Detector Phase	3	2		9	8	8 6	1	10	10 9	6	5	5 3

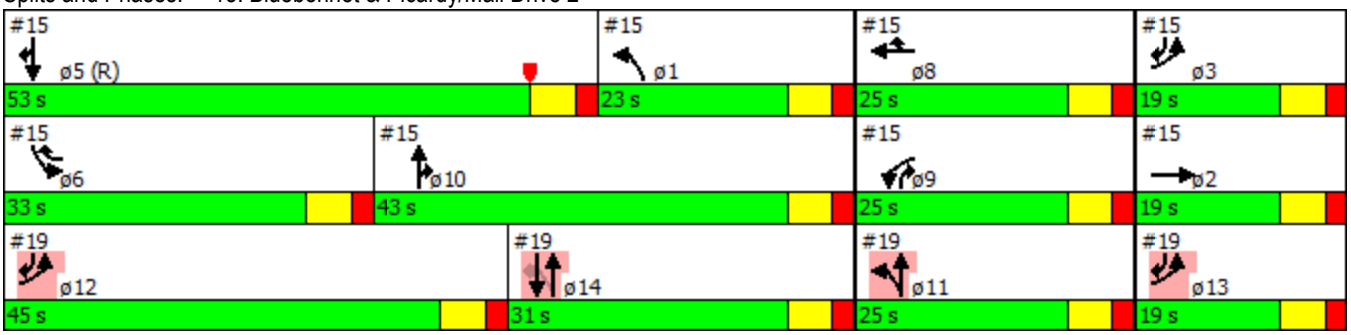
Lane Group	ø11	ø12	ø13	ø14
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	11	12	13	14
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	21.0		3.0	21.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		11.0	27.0		11.0	27.0	
Total Split (s)	19.0	19.0		25.0	25.0		23.0	43.0		33.0	53.0	
Total Split (%)	15.8%	15.8%		20.8%	20.8%		19.2%	35.8%		27.5%	44.2%	
Maximum Green (s)	13.0	13.0		19.0	19.0		17.0	37.0		27.0	47.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.0		1.0	1.0		3.0	4.3		1.0	4.3	
Minimum Gap (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	2.2	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	28.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	15.0	
Recall Mode	None	None		None	None		None	None		None	C-Min	
Act Effct Green (s)	17.6	17.6		14.4	14.4	42.6	14.6	35.8	56.2	28.2	51.8	75.4
Actuated g/C Ratio	0.15	0.15		0.12	0.12	0.36	0.12	0.30	0.47	0.24	0.43	0.63
v/c Ratio	0.24	0.22		0.27	0.12	0.48	0.31	0.77	0.16	0.49	0.61	0.11
Control Delay	46.9	23.5		30.6	29.3	31.7	30.7	23.6	7.5	41.7	8.0	4.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.9	23.5		30.6	29.3	31.7	30.7	23.6	7.5	41.7	8.0	4.6
LOS	D	C		C	C	C	C	C	A	D	A	A
Approach Delay		35.2			31.2			22.5			15.0	
Approach LOS		D			C			C			B	
Queue Length 50th (ft)	39	17		41	18	202	45	272	26	87	30	4
Queue Length 95th (ft)	74	50		59	m28	238	m65	260	m38	150	98	m23
Internal Link Dist (ft)		970			323			894			985	
Turn Bay Length (ft)	150			140		140	200		200	200		160
Base Capacity (vph)	502	531		543	560	667	262	1626	782	905	2317	1032
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.22		0.21	0.09	0.41	0.25	0.72	0.15	0.44	0.58	0.10

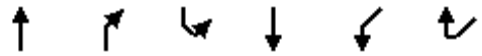
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 82 (68%), Referenced to phase 5:SBT, Start of Yellow			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 20.7		Intersection LOS: C	
Intersection Capacity Utilization 57.1%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 15: Bluebonnet & Picardy/Mall Drive 2

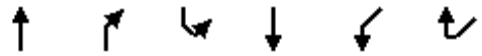


Lane Group	ø11	ø12	ø13	ø14
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	3.0
Minimum Split (s)	10.0	22.0	10.0	9.0
Total Split (s)	25.0	45.0	19.0	31.0
Total Split (%)	21%	38%	16%	26%
Maximum Green (s)	19.0	39.0	13.0	25.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	1.0
Minimum Gap (s)	3.0	3.0	3.0	0.2
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



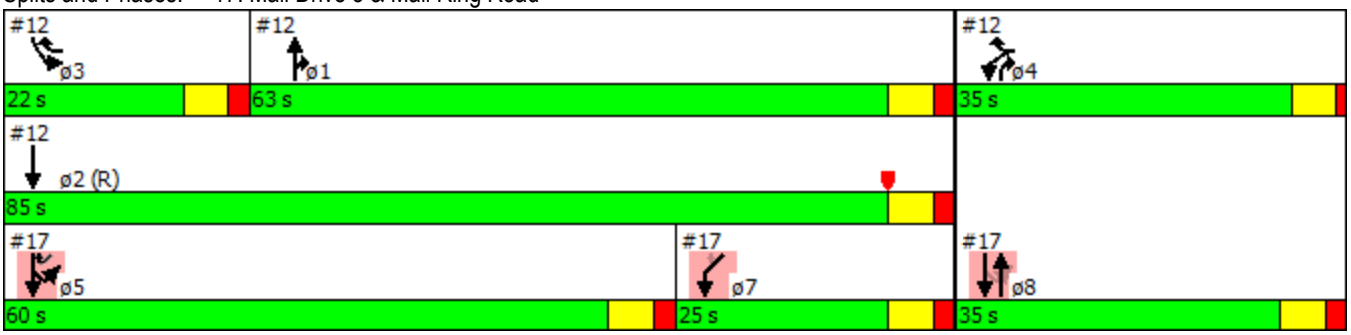
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Lane Configurations										
Volume (vph)	311	173	390	373	247	233				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00				
Frt	0.946					0.850				
Flt Protected			0.950		0.950					
Satd. Flow (prot)	3348	0	1770	1863	1770	1583				
Flt Permitted			0.291		0.950					
Satd. Flow (perm)	3348	0	542	1863	1770	1583				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)	84					174				
Link Speed (mph)	30			30	30					
Link Distance (ft)	797			352	1050					
Travel Time (s)	18.1			8.0	23.9					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Adj. Flow (vph)	338	188	424	405	268	253				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	526	0	424	405	268	253				
Enter Blocked Intersection	No	No	No	No	No	No				
Lane Alignment	Left	Right	Left	Left	Left	Right				
Median Width(ft)	0			12	12					
Link Offset(ft)	0			0	0					
Crosswalk Width(ft)	16			16	16					
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)		9	15		15	9				
Number of Detectors	2		1	2	1	1				
Detector Template	Thru		Left	Thru	Left	Right				
Leading Detector (ft)	100		20	100	20	20				
Trailing Detector (ft)	0		0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0				
Detector 1 Size(ft)	6		20	6	20	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel										
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0				
Detector 2 Position(ft)	94			94						
Detector 2 Size(ft)	6			6						
Detector 2 Type	Cl+Ex			Cl+Ex						
Detector 2 Channel										
Detector 2 Extend (s)	0.0			0.0						
Turn Type	NA		D.P+P	NA	Prot	pm+ov				
Protected Phases	8		5	5 8	7	5	1	2	3	4
Permitted Phases			8			7				
Detector Phase	8		5	5 8	7	5				
Switch Phase										
Minimum Initial (s)	29.0		4.0		4.0	4.0	24.0	34.0	4.0	4.0
Minimum Split (s)	35.0		10.0		22.0	10.0	30.0	40.0	10.0	10.0

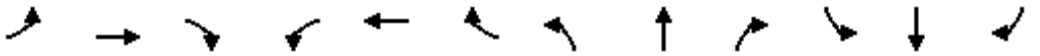


Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	ø1	ø2	ø3	ø4
Total Split (s)	35.0		60.0		25.0	60.0	63.0	85.0	22.0	35.0
Total Split (%)	29.2%		50.0%		20.8%	50.0%	53%	71%	18%	29%
Maximum Green (s)	29.0		54.0		19.0	54.0	57.0	79.0	16.0	30.0
Yellow Time (s)	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0		2.0	2.0	2.0	2.0	2.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0				
Total Lost Time (s)	6.0		6.0		6.0	6.0				
Lead/Lag			Lead		Lag	Lead	Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	Yes				
Vehicle Extension (s)	4.3		2.5		3.0	2.5	4.3	4.3	2.0	2.5
Minimum Gap (s)	2.2		0.2		3.0	0.2	2.2	2.2	0.2	0.2
Time Before Reduce (s)	30.0		0.0		0.0	0.0	20.0	30.0	0.0	0.0
Time To Reduce (s)	15.0		0.0		0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	Min		Max		None	Max	Min	C-Min	None	None
Walk Time (s)					5.0					
Flash Dont Walk (s)					11.0					
Pedestrian Calls (#/hr)					0					
Act Effct Green (s)	29.0		83.0	89.0	19.0	79.0				
Actuated g/C Ratio	0.24		0.69	0.74	0.16	0.66				
v/c Ratio	0.60		0.46	0.29	0.96	0.23				
Control Delay	37.0		13.1	6.4	79.2	7.9				
Queue Delay	0.0		0.4	0.9	0.0	0.0				
Total Delay	37.0		13.5	7.3	79.2	7.9				
LOS	D		B	A	E	A				
Approach Delay	37.0			10.5	44.5					
Approach LOS	D			B	D					
Queue Length 50th (ft)	160		67	63	90	0				
Queue Length 95th (ft)	220		217	205	#378	145				
Internal Link Dist (ft)	717			272	970					
Turn Bay Length (ft)										
Base Capacity (vph)	872		927	1381	280	1101				
Starvation Cap Reductn	0		175	692	0	0				
Spillback Cap Reductn	0		0	0	0	0				
Storage Cap Reductn	0		0	0	0	0				
Reduced v/c Ratio	0.60		0.56	0.59	0.96	0.23				

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 93 (78%), Referenced to phase 2:SBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 27.4		Intersection LOS: C	
Intersection Capacity Utilization 74.5%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

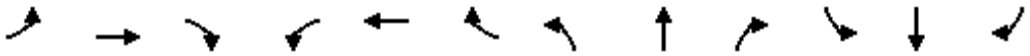
Splits and Phases: 17: Mall Drive 3 & Mall Ring Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	154	1247	81	323	1620	188	0	0	533	159	20	134
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		200	300		100	0		0	65		0
Storage Lanes	1		1	2		1	0		2	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.869	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1619	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1770	5085	1583	3433	5085	1583	0	0	2787	1770	1619	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			83			178			213		141	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		1065			834			318			371	
Travel Time (s)		16.1			12.6			7.2			8.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	162	1313	85	340	1705	198	0	0	561	167	21	141
Shared Lane Traffic (%)												
Lane Group Flow (vph)	162	1313	85	340	1705	198	0	0	561	167	162	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			30			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1			1	1	1	
Detector Template												
Leading Detector (ft)	45	290	45	45	290	45			45	45	45	
Trailing Detector (ft)	-6	284	-6	-6	284	-6			-6	-6	-6	
Detector 1 Position(ft)	-6	-6	-6	-6	-6	-6			-6	-6	-6	
Detector 1 Size(ft)	51	51	51	51	51	51			51	51	51	
Detector 1 Type	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)		284			284							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Extend			Extend							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA	Perm	Prot	NA	custom			Over	Perm	NA	
Protected Phases	1	7		5	4	2			5		2	
Permitted Phases			7			4				2		
Detector Phase	1	7	7	5	4	2			5	2	2	

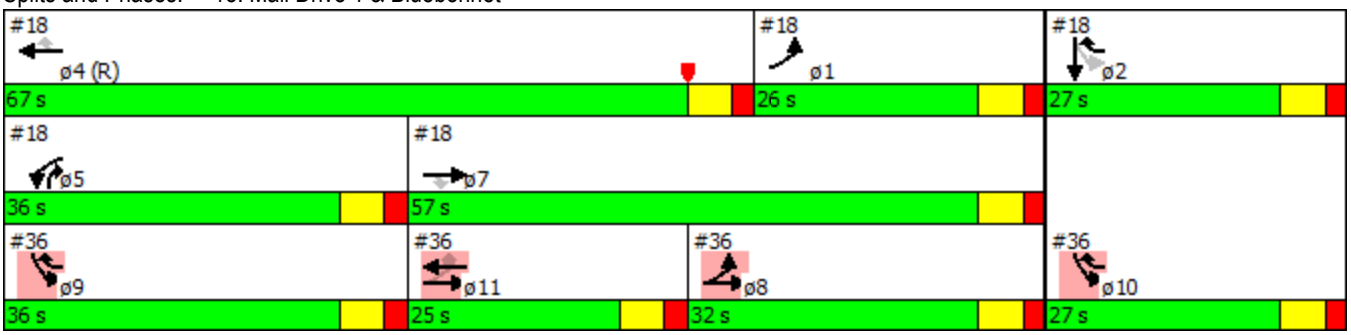
Lane Group	ø8	ø9	ø10	ø11
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	8	9	10	11
Permitted Phases				
Detector Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	14.0	4.0	14.0	4.0			4.0	4.0	4.0	
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	10.0			10.0	10.0	10.0	
Total Split (s)	26.0	57.0	57.0	36.0	67.0	27.0			36.0	27.0	27.0	
Total Split (%)	21.7%	47.5%	47.5%	30.0%	55.8%	22.5%			30.0%	22.5%	22.5%	
Maximum Green (s)	20.0	51.0	51.0	30.0	61.0	21.0			30.0	21.0	21.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0			6.0	6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead				Lead			
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	4.3	4.3	2.5	4.3	2.0			2.5	2.0	2.0	
Minimum Gap (s)	0.2	2.2	2.2	0.2	2.2	0.2			0.2	0.2	0.2	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	34.0	0.0			0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	15.0	0.0			0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Min	None			None	None	None	
Act Effct Green (s)	33.5	63.9	63.9	22.1	52.5	74.5			22.1	16.0	16.0	
Actuated g/C Ratio	0.28	0.53	0.53	0.18	0.44	0.62			0.18	0.13	0.13	
v/c Ratio	0.33	0.49	0.10	0.54	0.77	0.19			0.82	0.71	0.48	
Control Delay	21.3	11.1	1.1	43.8	23.8	1.4			44.0	65.5	15.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0			0.2	0.0	0.0	
Total Delay	21.3	11.1	1.1	43.8	23.8	1.4			44.2	65.5	15.1	
LOS	C	B	A	D	C	A			D	E	B	
Approach Delay		11.6			24.8						40.7	
Approach LOS		B			C						D	
Queue Length 50th (ft)	37	86	0	108	372	8			158	125	14	
Queue Length 95th (ft)	m103	156	m2	m128	449	m9			203	190	75	
Internal Link Dist (ft)		985			754			238			291	
Turn Bay Length (ft)	140		200	300		100				65		
Base Capacity (vph)	493	2715	884	858	2584	1040			856	312	401	
Starvation Cap Reductn	0	0	0	0	0	0			27	0	0	
Spillback Cap Reductn	0	0	0	0	0	0			0	0	0	
Storage Cap Reductn	0	0	0	0	0	0			0	0	0	
Reduced v/c Ratio	0.33	0.48	0.10	0.40	0.66	0.19			0.68	0.54	0.40	

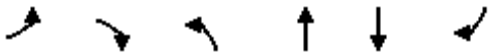
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 85 (71%), Referenced to phase 4:WBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 23.9		Intersection LOS: C	
Intersection Capacity Utilization 66.5%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 18: Mall Drive 1 & Bluebonnet



Lane Group	ø8	ø9	ø10	ø11
Switch Phase				
Minimum Initial (s)	4.0	4.0	4.0	14.0
Minimum Split (s)	22.0	10.0	22.0	20.0
Total Split (s)	32.0	36.0	27.0	25.0
Total Split (%)	27%	30%	23%	21%
Maximum Green (s)	26.0	30.0	21.0	19.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	4.3
Minimum Gap (s)	3.0	3.0	3.0	2.2
Time Before Reduce (s)	0.0	0.0	0.0	34.0
Time To Reduce (s)	0.0	0.0	0.0	15.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Lane Configurations												
Volume (vph)	326	211	285	278	269	126						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Frt		0.850				0.850						
Flt Protected	0.950		0.950									
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583						
Flt Permitted	0.950		0.430									
Satd. Flow (perm)	1770	1583	801	1863	1863	1583						
Right Turn on Red		Yes				Yes						
Satd. Flow (RTOR)		213				137						
Link Speed (mph)	30			30	30							
Link Distance (ft)	403			1050	819							
Travel Time (s)	9.2			23.9	18.6							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	354	229	310	302	292	137						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	354	229	310	302	292	137						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Right	Left	Left	Left	Right						
Median Width(ft)	36			12	0							
Link Offset(ft)	0			0	0							
Crosswalk Width(ft)	16			16	16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15	9	15			9						
Number of Detectors	1	1	1	2	2	1						
Detector Template	Left	Right	Left	Thru	Thru	Right						
Leading Detector (ft)	20	20	20	100	100	20						
Trailing Detector (ft)	0	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0	0						
Detector 1 Size(ft)	20	20	20	6	6	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)				94	94							
Detector 2 Size(ft)				6	6							
Detector 2 Type				Cl+Ex	Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)				0.0	0.0							
Turn Type	Prot	Free	D.P+P	NA	NA	pm+ov						
Protected Phases	12 13		11	11 14	14	12 13	1	2	3	5	6	8
Permitted Phases		Free	14			14						
Detector Phase	12 13		11	11 14	14	12 13						
Switch Phase												
Minimum Initial (s)			4.0		3.0		3.0	3.0	3.0	21.0	3.0	3.0
Minimum Split (s)			10.0		9.0		11.0	9.0	9.0	27.0	11.0	9.0

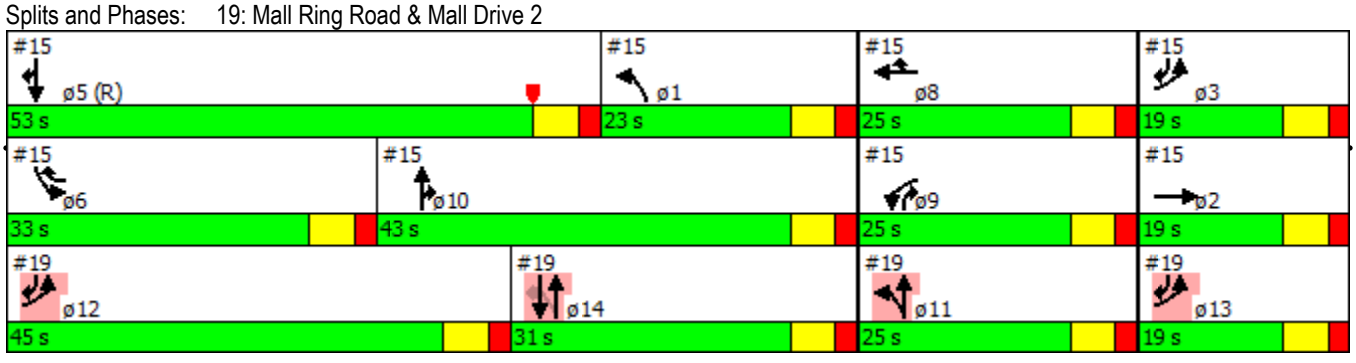
Lane Group	ø9	ø10	ø12	ø13
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	9	10	12	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	21.0	4.0	4.0
Minimum Split (s)	9.0	27.0	22.0	10.0

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø1	ø2	ø3	ø5	ø6	ø8
Total Split (s)			25.0		31.0		23.0	19.0	19.0	53.0	33.0	25.0
Total Split (%)			20.8%		25.8%		19%	16%	16%	44%	28%	21%
Maximum Green (s)			19.0		25.0		17.0	13.0	13.0	47.0	27.0	19.0
Yellow Time (s)			4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)			2.0		2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0		0.0							
Total Lost Time (s)			6.0		6.0							
Lead/Lag					Lag		Lag			Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0		1.0		3.0	1.0	1.5	4.3	1.0	1.0
Minimum Gap (s)			3.0		0.2		0.2	0.2	0.2	2.2	0.2	0.2
Time Before Reduce (s)			0.0		0.0		0.0	0.0	0.0	28.0	0.0	0.0
Time To Reduce (s)			0.0		0.0		0.0	0.0	0.0	15.0	0.0	0.0
Recall Mode			None		None		None	None	None	C-Min	None	None
Act Effct Green (s)	50.8	120.0	51.2	57.2	36.8	93.6						
Actuated g/C Ratio	0.42	1.00	0.43	0.48	0.31	0.78						
v/c Ratio	0.47	0.14	0.68	0.34	0.51	0.11						
Control Delay	33.2	0.2	45.3	27.8	29.8	0.2						
Queue Delay	0.2	0.0	0.0	0.0	0.0	0.0						
Total Delay	33.4	0.2	45.3	27.8	29.8	0.2						
LOS	C	A	D	C	C	A						
Approach Delay	20.4			36.7	20.3							
Approach LOS	C			D	C							
Queue Length 50th (ft)	225	0	176	171	222	0						
Queue Length 95th (ft)	151	0	280	267	315	0						
Internal Link Dist (ft)	323			970	739							
Turn Bay Length (ft)												
Base Capacity (vph)	943	1583	526	960	571	1265						
Starvation Cap Reductn	150	0	0	0	0	0						
Spillback Cap Reductn	0	0	0	0	0	0						
Storage Cap Reductn	0	0	0	0	0	0						
Reduced v/c Ratio	0.45	0.14	0.59	0.31	0.51	0.11						

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 82 (68%), Referenced to phase 5:SBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 26.5 Intersection LOS: C
Intersection Capacity Utilization 63.0% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 19: Mall Ring Road & Mall Drive 2



Lane Group	ø9	ø10	ø12	ø13
Total Split (s)	25.0	43.0	45.0	19.0
Total Split (%)	21%	36%	38%	16%
Maximum Green (s)	19.0	37.0	39.0	13.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?			Yes	
Vehicle Extension (s)	1.0	4.3	3.0	3.0
Minimum Gap (s)	0.2	0.2	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	107	36	651	0	0	0	0	1752	188	263	1479	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	375		375	0		0	400		0	300		0
Storage Lanes	1		1	0		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.88	1.00	1.00	1.00	1.00	0.86	1.00	0.97	0.95	1.00
Frt			0.850						0.850			
Flt Protected	0.950	0.976								0.950		
Satd. Flow (prot)	1681	1727	2787	0	0	0	0	6408	1583	3433	3539	0
Flt Permitted	0.950	0.976								0.950		
Satd. Flow (perm)	1681	1727	2787	0	0	0	0	6408	1583	3433	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			64						198			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1072			1024			834			410	
Travel Time (s)		24.4			23.3			12.6			6.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	113	38	685	0	0	0	0	1844	198	277	1557	0
Shared Lane Traffic (%)	34%											
Lane Group Flow (vph)	75	76	685	0	0	0	0	1844	198	277	1557	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			37	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1					2	1	1	2	
Detector Template												
Leading Detector (ft)	45	45	45					290	45	45	290	
Trailing Detector (ft)	-6	-6	-6					284	-6	-6	284	
Detector 1 Position(ft)	-6	-6	-6					-6	-6	-6	-6	
Detector 1 Size(ft)	51	51	51					51	51	51	51	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex					Call	Cl+Ex	Cl+Ex	Call	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Split	NA	custom					NA	Perm	Prot	NA	
Protected Phases	4	4	4 14					2		1	12	
Permitted Phases									2			
Detector Phase	4	4	4 14					2	2	1	12	

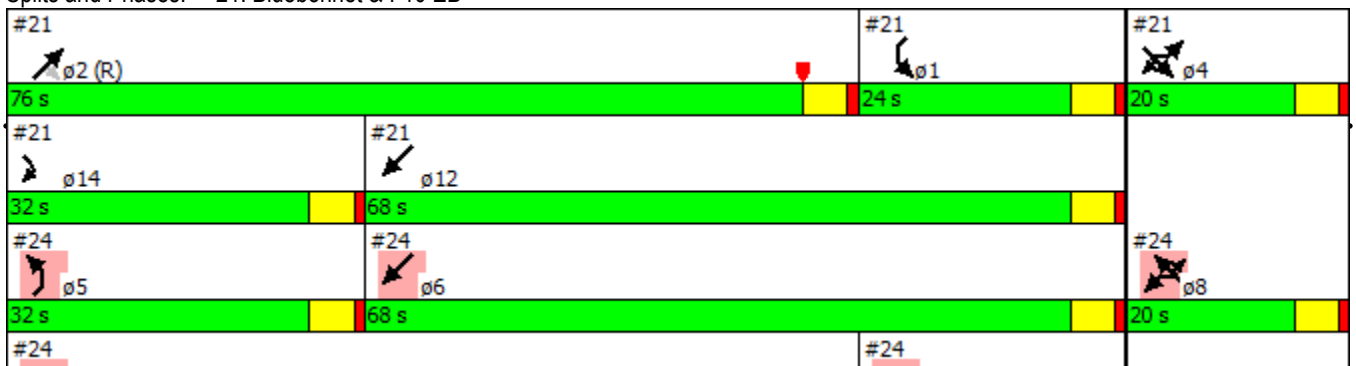
Lane Group	ø5	ø6	ø8	ø14	ø16	ø18
Lane Configurations						
Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	5	6	8	14	16	18
Permitted Phases						
Detector Phase						

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)	3.0	3.0						10.0	10.0	3.0	10.0	
Minimum Split (s)	20.0	20.0						20.0	20.0	8.0	20.0	
Total Split (s)	20.0	20.0						76.0	76.0	24.0	68.0	
Total Split (%)	16.7%	16.7%						63.3%	63.3%	20.0%	56.7%	
Maximum Green (s)	15.0	15.0						71.0	71.0	19.0	63.0	
Yellow Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0	5.0	5.0	5.0	
Lead/Lag								Lead	Lead	Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0	2.0	2.0	6.0	
Recall Mode	None	None						C-Max	C-Max	None	Max	
Act Effct Green (s)	15.0	15.0	47.0					71.0	71.0	19.0	63.0	
Actuated g/C Ratio	0.12	0.12	0.39					0.59	0.59	0.16	0.52	
v/c Ratio	0.36	0.35	0.61					0.49	0.19	0.51	0.84	
Control Delay	53.5	53.2	28.9					12.0	2.0	30.8	10.9	
Queue Delay	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Total Delay	53.5	53.2	28.9					12.0	2.0	30.8	10.9	
LOS	D	D	C					B	A	C	B	
Approach Delay		33.3						11.0			13.9	
Approach LOS		C						B			B	
Queue Length 50th (ft)	56	57	215					156	4	110	68	
Queue Length 95th (ft)	108	110	285					222	12	141	74	
Internal Link Dist (ft)		992			944			754			330	
Turn Bay Length (ft)	375		375							300		
Base Capacity (vph)	210	215	1130					3791	1017	543	1857	
Starvation Cap Reductn	0	0	0					0	0	0	0	
Spillback Cap Reductn	0	0	0					26	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.36	0.35	0.61					0.49	0.19	0.51	0.84	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 30 (25%), Referenced to phase 2:NET, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 16.1 — Intersection LOS: B
Intersection Capacity Utilization 72.0% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 21: Bluebonnet & I-10 EB



Lane Group	ø5	ø6	ø8	ø14	ø16	ø18
Switch Phase						
Minimum Initial (s)	3.0	10.0	3.0	3.0	10.0	4.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	32.0	68.0	20.0	32.0	76.0	24.0
Total Split (%)	27%	57%	17%	27%	63%	20%
Maximum Green (s)	27.0	63.0	15.0	27.0	71.0	19.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lead	Lag		Lead	Lead	Lag
Lead-Lag Optimize?						Yes
Vehicle Extension (s)	3.5	6.0	2.0	3.5	2.0	3.0
Recall Mode	Max	Max	None	Max	Max	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	0	0	162	3	305	592	1267	0	0	1580	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		525	300		0	575		575
Storage Lanes	0		0	1		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.95	1.00	1.00	0.91	0.91
Frt						0.850					0.984	
Flt Protected				0.950	0.954		0.950					
Satd. Flow (prot)	0	0	0	1681	1688	1583	3433	3539	0	0	5004	0
Flt Permitted				0.950	0.954		0.950					
Satd. Flow (perm)	0	0	0	1681	1688	1583	3433	3539	0	0	5004	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						64					25	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		894			1008			410			866	
Travel Time (s)		20.3			22.9			6.2			13.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	171	3	321	623	1334	0	0	1663	195
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	0	0	87	87	321	623	1334	0	0	1858	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			40			50	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	2			2	
Detector Template												
Leading Detector (ft)				45	45	45	45	290			290	
Trailing Detector (ft)				-6	-6	-6	-6	284			284	
Detector 1 Position(ft)				-6	-6	-6	-6	-6			-6	
Detector 1 Size(ft)				51	51	51	51	51			51	
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call			Call	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type				Split	NA	custom	Prot	NA			NA	
Protected Phases				8	8	8 18	5	16			6	
Permitted Phases												
Detector Phase				8	8	8 18	5	16			6	

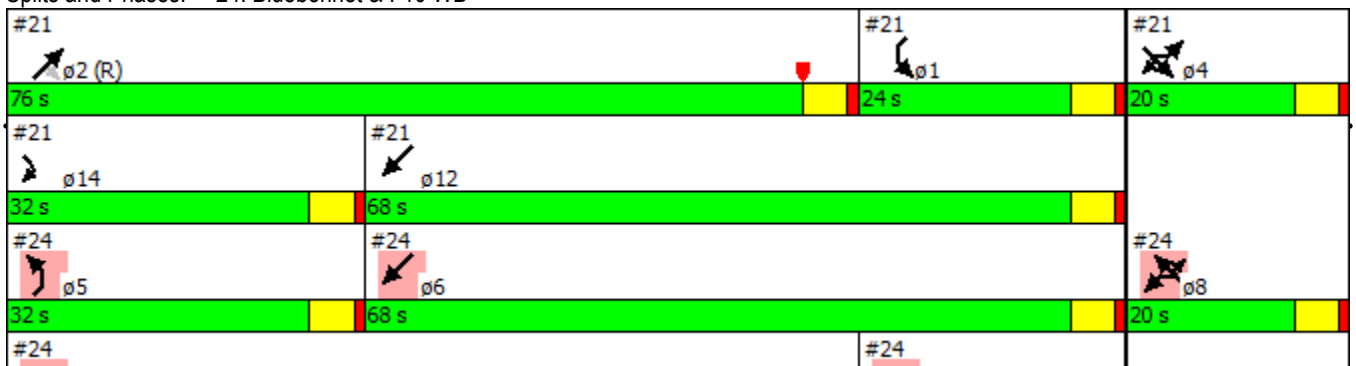
Lane Group	ø1	ø2	ø4	ø12	ø14	ø18
Lane Configurations						
Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	1	2	4	12	14	18
Permitted Phases						
Detector Phase						

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Switch Phase												
Minimum Initial (s)				3.0	3.0		3.0	10.0			10.0	
Minimum Split (s)				20.0	20.0		8.0	20.0			20.0	
Total Split (s)				20.0	20.0		32.0	76.0			68.0	
Total Split (%)				16.7%	16.7%		26.7%	63.3%			56.7%	
Maximum Green (s)				15.0	15.0		27.0	71.0			63.0	
Yellow Time (s)				4.0	4.0		4.0	4.0			4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				5.0	5.0		5.0	5.0			5.0	
Lead/Lag							Lead	Lead			Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0		3.5	2.0			6.0	
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)				15.0	15.0	39.0	27.0	71.0			63.0	
Actuated g/C Ratio				0.12	0.12	0.32	0.22	0.59			0.52	
v/c Ratio				0.41	0.41	0.58	0.81	0.64			0.70	
Control Delay				55.1	55.0	31.4	41.1	6.1			17.4	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay				55.1	55.0	31.4	41.1	6.1			17.4	
LOS				E	D	C	D	A			B	
Approach Delay					39.7			17.2			17.4	
Approach LOS					D			B			B	
Queue Length 50th (ft)				66	66	165	118	60			526	
Queue Length 95th (ft)				123	123	262	198	56			427	
Internal Link Dist (ft)		814			928			330			786	
Turn Bay Length (ft)						525	300					
Base Capacity (vph)				210	211	557	772	2093			2638	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			11	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.41	0.41	0.58	0.81	0.64			0.71	

Intersection Summary

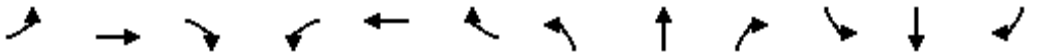
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 30 (25%), Referenced to phase 2:NET, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 19.9 Intersection LOS: B
Intersection Capacity Utilization 72.0% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 24: Bluebonnet & I-10 WB



Lane Group	ø1	ø2	ø4	ø12	ø14	ø18
Switch Phase						
Minimum Initial (s)	3.0	10.0	3.0	10.0	3.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	8.0	20.0
Total Split (s)	24.0	76.0	20.0	68.0	32.0	24.0
Total Split (%)	20%	63%	17%	57%	27%	20%
Maximum Green (s)	19.0	71.0	15.0	63.0	27.0	19.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lead		Lag	Lead	Lag
Lead-Lag Optimize?						Yes
Vehicle Extension (s)	2.0	2.0	2.0	6.0	3.5	3.0
Recall Mode	None	C-Max	None	Max	Max	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	1	30	137	4	8	34	1439	99	11	1598	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	200		200	300		175	175		175
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.855			0.950	0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3026	0	3433	1681	1504	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.081			0.114		
Satd. Flow (perm)	1770	3026	0	3433	1681	1504	151	3539	1583	212	3539	1583
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)		96										
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		475			1072			866			1049	
Travel Time (s)		10.8			24.4			13.1			15.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	42	1	32	144	4	8	36	1515	104	12	1682	9
Shared Lane Traffic (%)						29%						
Lane Group Flow (vph)	42	33	0	144	6	6	36	1515	104	12	1682	9
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		60			60			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	2	1	1	2	1
Detector Template												
Leading Detector (ft)	45	45		45	45	45	45	290	45	45	290	45
Trailing Detector (ft)	-6	-6		-6	-6	-6	-6	284	-6	-6	284	-6
Detector 1 Position(ft)	-6	-6		-6	-6	-6	-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	51	51		51	51	51	51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Prot	NA		Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4		3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases							2			6		
Detector Phase	7	4		3	8	8 1	5	2	2 3	1	6	6 7

Lanes, Volumes, Timings
27: Bluebonnet & Blue Cross

2037 Build Weekend

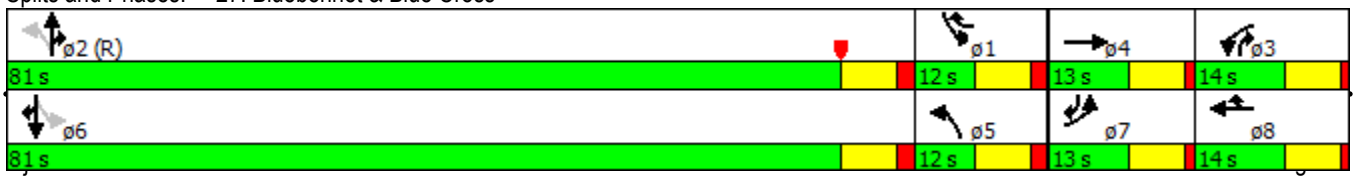
5/18/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	5.0		5.0	3.0		3.0	20.0		5.0	20.0	
Minimum Split (s)	8.9	10.9		10.9	8.9		9.6	26.6		11.6	26.6	
Total Split (s)	13.0	13.0		14.0	14.0		12.0	81.0		12.0	81.0	
Total Split (%)	10.8%	10.8%		11.7%	11.7%		10.0%	67.5%		10.0%	67.5%	
Maximum Green (s)	7.1	7.1		8.1	8.1		5.4	74.4		5.4	74.4	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	0.9	0.9		0.9	0.9		1.6	1.6		1.6	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.9	5.9		5.9	5.9		6.6	6.6		6.6	6.6	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		2.5	1.5		1.5	5.0		1.5	5.0	
Recall Mode	None	None		None	None		None	C-Min		None	Min	
Act Effct Green (s)	9.9	5.0		9.5	6.4	12.2	90.3	86.7	104.8	88.7	84.6	99.1
Actuated g/C Ratio	0.08	0.04		0.08	0.05	0.10	0.75	0.72	0.87	0.74	0.70	0.83
v/c Ratio	0.29	0.15		0.53	0.07	0.04	0.21	0.59	0.08	0.05	0.67	0.01
Control Delay	57.1	1.5		60.2	54.7	33.0	5.5	5.4	1.1	6.9	15.8	2.9
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.1	1.5		60.2	54.7	33.0	5.5	5.4	1.1	6.9	15.8	2.9
LOS	E	A		E	D	C	A	A	A	A	B	A
Approach Delay		32.6			58.9			5.1			15.7	
Approach LOS		C			E			A			B	
Queue Length 50th (ft)	28	0		56	5	3	4	102	3	3	605	2
Queue Length 95th (ft)	70	0		90	20	14	m8	155	m14	m0	356	m2
Internal Link Dist (ft)		395			992			786			969	
Turn Bay Length (ft)	75			200		200	300		175	175		175
Base Capacity (vph)	154	269		277	113	175	187	2561	1369	227	2495	1314
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.12		0.52	0.05	0.03	0.19	0.59	0.08	0.05	0.67	0.01

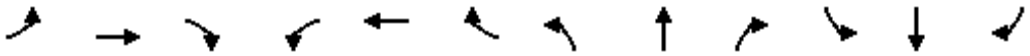
Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 35 (29%), Referenced to phase 2:NBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 13.1 Intersection LOS: B
Intersection Capacity Utilization 65.2% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 27: Bluebonnet & Blue Cross



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	0	24	17	0	2	14	1469	4	0	1576	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		130	150		185
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.901			0.986				0.850			0.850
Flt Protected		0.987			0.957		0.950					
Satd. Flow (prot)	0	1657	0	0	1758	0	1770	3539	1583	1863	3539	1583
Flt Permitted		0.903			0.884		0.134					
Satd. Flow (perm)	0	1516	0	0	1624	0	250	3539	1583	1863	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			27				27			27
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1129			1330			1049			1811	
Travel Time (s)		25.7			30.2			15.9			27.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	9	0	25	18	0	2	15	1546	4	0	1659	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	34	0	0	20	0	15	1546	4	0	1659	4
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6

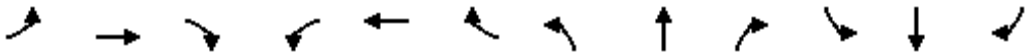


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	11.0	11.0		11.0	11.0		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.0	24.0		24.0	24.0		84.0	84.0	84.0	84.0	84.0	84.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		6.4			6.4		108.5	108.5	108.5		108.5	108.5
Actuated g/C Ratio		0.05			0.05		0.90	0.90	0.90		0.90	0.90
v/c Ratio		0.32			0.18		0.07	0.48	0.00		0.52	0.00
Control Delay		31.8			17.7		0.9	0.8	0.0		3.2	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0		0.0	0.0
Total Delay		31.8			17.7		0.9	0.8	0.0		3.2	0.0
LOS		C			B		A	A	A		A	A
Approach Delay		31.8			17.7			0.8			3.2	
Approach LOS		C			B			A			A	
Queue Length 50th (ft)		5			0		1	39	0		132	0
Queue Length 95th (ft)		39			20		m0	1	m0		287	m0
Internal Link Dist (ft)		1049			1250			969			1731	
Turn Bay Length (ft)							150		130			185
Base Capacity (vph)		324			346		226	3199	1434		3199	1434
Starvation Cap Reductn		0			0		0	0	0		0	0
Spillback Cap Reductn		0			0		0	0	0		0	0
Storage Cap Reductn		0			0		0	0	0		0	0
Reduced v/c Ratio		0.10			0.06		0.07	0.48	0.00		0.52	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 72 (60%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 2.4		Intersection LOS: A	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 30: Bluebonnet & Gail

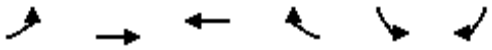
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	1	25	15	0	15	26	1422	33	21	1540	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	150		150
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.897			0.932				0.850			0.850
Flt Protected		0.990			0.976		0.950			0.950		
Satd. Flow (prot)	0	1654	0	0	1694	0	1770	3539	1583	1770	3539	1583
Flt Permitted		0.920			0.824		0.140			0.162		
Satd. Flow (perm)	0	1537	0	0	1431	0	261	3539	1583	302	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			27				31			29
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1794			2049			1811			2409	
Travel Time (s)		40.8			46.6			27.4			36.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	7	1	26	16	0	16	27	1497	35	22	1621	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	34	0	0	32	0	27	1497	35	22	1621	12
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			30			30	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	2	1	1	2	1
Detector Template	Left			Left								
Leading Detector (ft)	20	45		20	45		45	290	45	45	290	45
Trailing Detector (ft)	0	-6		0	-6		-6	284	-6	-6	284	-6
Detector 1 Position(ft)	0	-6		0	-6		-6	-6	-6	-6	-6	-6
Detector 1 Size(ft)	20	51		20	51		51	51	51	51	51	51
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Call	Cl+Ex	Cl+Ex	Call	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)								284			284	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Extend			Extend	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		30.0	30.0	30.0	30.0	30.0	30.0
Minimum Split (s)	9.2	9.2		9.2	9.2		36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	23.8	23.8		23.8	23.8		84.0	84.0	84.0	84.0	84.0	84.0
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.2	1.2		1.2	1.2		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.2			6.2		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Min	C-Min	C-Min	Min	Min	Min
Walk Time (s)							15.0	15.0	15.0	15.0	15.0	15.0
Flash Dont Walk (s)							14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)							0	0	0	0	0	0
Act Effct Green (s)		6.4			6.4		108.4	108.4	108.4	108.4	108.4	108.4
Actuated g/C Ratio		0.05			0.05		0.90	0.90	0.90	0.90	0.90	0.90
v/c Ratio		0.32			0.32		0.11	0.47	0.02	0.08	0.51	0.01
Control Delay		32.7			30.7		1.4	1.7	0.2	2.4	2.6	0.2
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		32.7			30.7		1.4	1.7	0.2	2.4	2.6	0.2
LOS		C			C		A	A	A	A	A	A
Approach Delay		32.7			30.7			1.7			2.6	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		6			4		1	19	0	2	130	0
Queue Length 95th (ft)		39			36		m1	99	m1	8	197	1
Internal Link Dist (ft)		1714			1969			1731			2329	
Turn Bay Length (ft)							150		150	150		150
Base Capacity (vph)		325			305		236	3196	1432	272	3196	1432
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.10			0.10		0.11	0.47	0.02	0.08	0.51	0.01

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 6 (5%), Referenced to phase 2:NBTL, Start of Yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.51			
Intersection Signal Delay: 2.8		Intersection LOS: A	
Intersection Capacity Utilization 68.5%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 33: Bluebonnet & Oliphant



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Lane Configurations												
Volume (vph)	190	414	226	343	255	169						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.95						
Frt				0.850	0.940							
Flt Protected	0.950				0.971							
Satd. Flow (prot)	1770	1863	1863	1583	3298	0						
Flt Permitted	0.403				0.971							
Satd. Flow (perm)	751	1863	1863	1583	3298	0						
Right Turn on Red				Yes		Yes						
Satd. Flow (RTOR)				373	184							
Link Speed (mph)		30	30		30							
Link Distance (ft)		819	802		318							
Travel Time (s)		18.6	18.2		7.2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Adj. Flow (vph)	207	450	246	373	277	184						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	207	450	246	373	461	0						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Left	Right	Left	Right						
Median Width(ft)		12	0		36							
Link Offset(ft)		0	0		0							
Crosswalk Width(ft)		16	16		16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)	15			9	15	9						
Number of Detectors	1	2	2	1	1							
Detector Template	Left	Thru	Thru	Right	Left							
Leading Detector (ft)	20	100	100	20	20							
Trailing Detector (ft)	0	0	0	0	0							
Detector 1 Position(ft)	0	0	0	0	0							
Detector 1 Size(ft)	20	6	6	20	20							
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex							
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0							
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0							
Detector 2 Position(ft)		94	94									
Detector 2 Size(ft)		6	6									
Detector 2 Type		Cl+Ex	Cl+Ex									
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0									
Turn Type	D.P+P	NA	NA	pm+ov	Prot							
Protected Phases	8	8 11	11	9 10	9 10		1	2	4	5	7	9
Permitted Phases	11			11								
Detector Phase	8	8 11	11	9 10	9 10							
Switch Phase												
Minimum Initial (s)	4.0		14.0				4.0	4.0	14.0	4.0	14.0	4.0
Minimum Split (s)	22.0		20.0				10.0	10.0	20.0	10.0	20.0	10.0

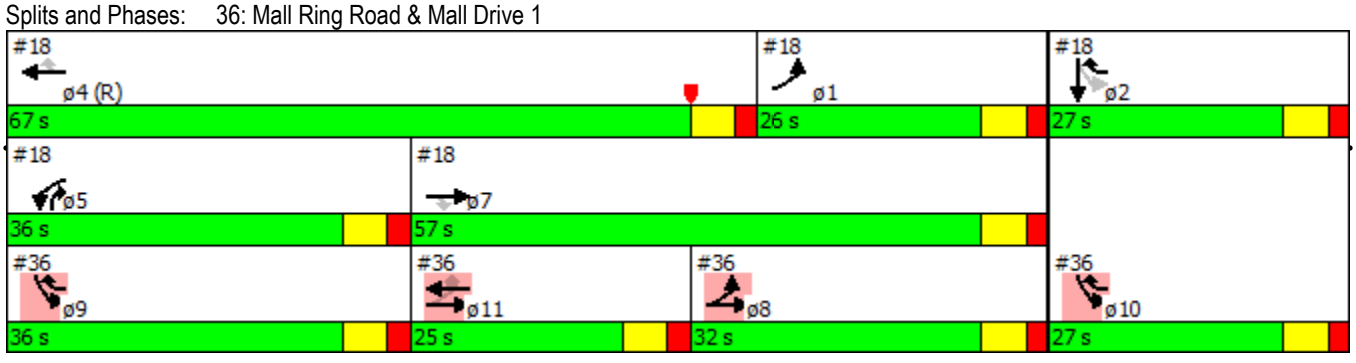
Lane Group	ø10
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	10
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	22.0

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø1	ø2	ø4	ø5	ø7	ø9
Total Split (s)	32.0		25.0				26.0	27.0	67.0	36.0	57.0	36.0
Total Split (%)	26.7%		20.8%				22%	23%	56%	30%	48%	30%
Maximum Green (s)	26.0		19.0				20.0	21.0	61.0	30.0	51.0	30.0
Yellow Time (s)	4.0		4.0				4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0				2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0									
Total Lost Time (s)	6.0		6.0									
Lead/Lag			Lag				Lag		Lead	Lead	Lag	Lead
Lead-Lag Optimize?												Yes
Vehicle Extension (s)	3.0		4.3				2.5	2.0	4.3	2.5	4.3	3.0
Minimum Gap (s)	3.0		2.2				0.2	0.2	2.2	0.2	2.2	3.0
Time Before Reduce (s)	0.0		34.0				0.0	0.0	34.0	0.0	0.0	0.0
Time To Reduce (s)	0.0		15.0				0.0	0.0	15.0	0.0	0.0	0.0
Recall Mode	None		None				None	None	C-Min	None	None	None
Act Effct Green (s)	72.9	78.9	26.3	61.4	29.1							
Actuated g/C Ratio	0.61	0.66	0.22	0.51	0.24							
v/c Ratio	0.24	0.37	0.60	0.38	0.49							
Control Delay	3.8	3.6	47.4	2.0	58.4							
Queue Delay	0.0	0.0	0.0	0.0	0.1							
Total Delay	3.8	3.6	47.4	2.0	58.6							
LOS	A	A	D	A	E							
Approach Delay		3.7	20.0		58.6							
Approach LOS		A	C		E							
Queue Length 50th (ft)	19	82	174	0	138							
Queue Length 95th (ft)	16	39	230	31	170							
Internal Link Dist (ft)		739	722		238							
Turn Bay Length (ft)												
Base Capacity (vph)	852	1211	413	984	1511							
Starvation Cap Reductn	0	0	0	0	314							
Spillback Cap Reductn	0	0	0	0	0							
Storage Cap Reductn	0	0	0	0	0							
Reduced v/c Ratio	0.24	0.37	0.60	0.38	0.39							

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 85 (71%), Referenced to phase 4:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 24.1 Intersection LOS: C
Intersection Capacity Utilization 50.0% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 36: Mall Ring Road & Mall Drive 1



Lane Group	ø10
Total Split (s)	27.0
Total Split (%)	23%
Maximum Green (s)	21.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Minimum Gap (s)	3.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary