

LA 3234 Extension from LA 1065 to Hammond Airport

Stage 1 Environmental Assessment

Tangipahoa Parish, LA
State Project No. H.008915
Federal Aid Project No. H008915

Prepared for:

Louisiana Department of Transportation
and Development

and

U.S. Department of Transportation -
Federal Highway Administration
(Lead Federal Agency)



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Prepared by:



in association with

Urban Systems, Inc. - ELOS Environmental, LLC - Bowlby and Associates, Inc.
- O.R. Colan Associates, Inc. - Coastal Environments, Inc.

January 2020

Summary of Mitigation, Commitments and Permits

Mitigation, Commitments and Permits for the impacts associated with the implementation of the preferred alternative for the LA 3234 Extension project include the following:

- In terms of **relocations**, all relocations will be in accordance with the Relocation Assistance and Real Property Acquisition Act of 1970 (uniform Act).
- There is a possibility of **cultural resource impacts**. For the Preferred Alternative, two archaeological sites were recommended for further investigation or monitoring after acquisition of the properties as subsurface access was limited during the survey.
- In terms of noise impacts, a **noise barrier** at the McCray Lane area has been determined to be reasonable and feasible.
- **Wetlands impacts:**
 - projected to consist of approximately 2.85 acres of jurisdictional wetlands that lie within the proposed right-of-way.
 - For unavoidable wetland impacts, compensatory mitigation is required.
 - During the Section 404 permitting process, the US Army Corps of Engineers, New Orleans District (USACE) will determine the appropriate form and amount of required mitigation.
- A Section 401 Permit (Water Quality Certification) will be required from the Louisiana Department of Environmental Quality (DEQ).
- Because the project affects wetlands, a Section 404 Permit will be required from the USACE.

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List of Acronyms and Abbreviations

AAI	All Appropriate Inquiries
ADT	Average Daily Traffic
APE	Area of Potential Effect
ASTM	American Society for Testing and Materials
BA	Bowlby & Associates, Inc.
BFE	Base Flood Elevation
BLH	Bottomland Hardwoods
BMP	Best Management Practices
BSR	Biological Survey Report
CAAA	Clean Air Act Amendments of 1990
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System.
CFR	Code of Federal Regulations
CN	Canadian National Railroad
CO	Carbon Monoxide
CRPC	Capital Region Planning Commission
CWA	Clean Water Act
dB	Decibel
dBA	A-weighted decibel
DEM	Digital Elevation Model
DNR	(Louisiana) Department of Natural Resources
DOA	(Louisiana) Division of Archaeology
DOQQ	Digital Orthophoto Quarter Quadrangle
DOT	(United States) Department of Transportation
EA	Environmental Assessment
EL	Elevation
EPA	(United States) Environmental Protection Agency
ESA	Environmental Site Assessment
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Maps

FONSI	Finding of No Significant Impact
FRA	Federal Railroad Administration
FWS	(United States) Fish and Wildlife Service
HCM	Highway Capacity Manual
HUC	Hydrologic Unit Code
GPS	Global Positioning System
ITE	Institute of Transportation Engineers
JD	Jurisdictional Determination
LADOTD	Louisiana Department of Transportation and Development
LDEQ	Louisiana Department of Environmental Quality
LDWF	Louisiana Department of Wildlife and Fisheries
Leq(h)	One-hour Equivalent Sound Level
LNHP	Louisiana National Heritage Program
LOS	Level of Service
LRAM	Louisiana Wetland Rapid Assessment Method
LRTP	Long Range Transportation Plan
MPH	Miles Per Hour
MPO	Metropolitan Planning Organization
MSA	Metropolitan Statistical Area
MSL	Mean Sea Level
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NEPA	National Environmental Policy Act (1969)
NFIP	National Flood Insurance Program
NO _x	Nitrogen Oxides
NPDES	National Pollution Discharge Elimination System
NRHP	National Register of Historic Places
NSA	Noise Sensitive Area
NWI	National Wetlands Inventory
O ₃	Ozone
Pb	Lead
PM ₁₀ /PM ₂₅	Particulate matter
REC	Recognized Environmental Condition

ROW	Right-of-way
RPC	New Orleans Regional Planning Commission
SHPO	State Historic Preservation Officer
SNAP	Supplemental Nutrition Assistance Program
SO _x	Sulfur Oxides
STIP	State Transportation Improvement Program
T&E	Threatened and Endangered
TIP	Transportation Improvement Program
TPT	Tangipahoa Public Transit
TSI	Traffic Signal Inventory
UIC	Underground Injection Control
USACE	U.S. Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
V/C	Volume/ Capacity

ENVIRONMENTAL CHECKLIST

WBS No. H.008915

Name: LA 3234 Extension From LA 1065 to Hammond Airport

Route: LA 3234

Parish: Tangipahoa

1. General Information

- | | | |
|---|---|---|
| <input checked="" type="checkbox"/> Conceptual Layout | <input type="checkbox"/> Line and Grade | <input type="checkbox"/> Preliminary Plans |
| <input type="checkbox"/> Survey | <input type="checkbox"/> Plan-in-Hand | <input type="checkbox"/> Advance Check Prints |

2. Class of Action

- | | |
|---|---|
| <input type="checkbox"/> Environmental Impact Statement (E.I.S.) | <input type="checkbox"/> Programmatic C.E. (P.C.E.) |
| <input checked="" type="checkbox"/> Environmental Assessment (E.A.) | <input type="checkbox"/> 23 CFR 771.177(c) _____ |
| <input type="checkbox"/> Categorical Exclusion (C.E.) | <input type="checkbox"/> 23 CFR 771.177(d) _____ |
| <input type="checkbox"/> State Funded Only (EE/EF/ER) | |

3. Project Description

See EA Document

4. Public Involvement

- Views were solicited on December 28, 2017.
- Views were not solicited.
- Public Involvement events held. (List events and dates in Section 11.)
- A public hearing/opportunity for requesting a public hearing required. (List dates in Section 11.)
- A public hearing/opportunity for requesting a public hearing not required.

5. Real Estate

- | | NO | YES | N/A |
|--|-------------------------------------|-------------------------------------|---------------------------------------|
| a. Will additional right-of-way be required? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Is right of way required from a burial/cemetery site? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Is right-of-way required from a Wetland Reserve Program (WRP) property? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Is required right-of-way prime farmland ? (Use form AD 1006, if needed) ... | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Will any relocation of residences or businesses occur? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> ¹ |
| c. Are construction or drainage servitudes required? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

6. Section 4(f) and Section 6(f)

- | | NO | YES | N/A |
|--|-------------------------------------|--------------------------|--------------------------|
| a. Will historic sites or publicly owned parks, recreation areas, wildlife or waterfowl refuges (Section 4f) be affected? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- b. Are properties acquired or improved with **L&WC** funds affected?

7. Cultural Section 106

- | | NO | YES | N/A |
|--|-------------------------------------|-------------------------------------|---------------------------------------|
| a. Are any known historic properties adjacent or impacted by the project? (If so, list below)..... | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> ² |
| b. Are any known archaeological sites adjacent or impacted by the project? (If so, list site # below) | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> ² |
| c. Would the project affect property owned by or held in trust for a federally recognized tribal government ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

8. Natural & Physical Environment

- | | NO | YES | N/A |
|--|-------------------------------------|-------------------------------------|--|
| a. Are wetlands affected? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> ³ |
| b. Are other waters of the U.S. affected? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> ³ |
| c. Are Endangered/Threatened Species/Habitat affected? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> ⁴ |
| d. Is project within 100 Year Floodplain ? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> ⁵ |
| e. Is project in Coastal Zone Management Area ? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> ⁶ |
| f. Is project in a Coastal Barrier Resources area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Is project on a Sole Source Aquifer ? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> ⁷ |
| h. Is project impacting a navigable waterway ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i. Are any State or Federal Scenic Rivers/Streams impacted? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| j. Is a noise analysis warranted (Type I project) | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> ⁸ |
| k. Is an air quality study warranted? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> ⁹ |
| l. Is project in a non-attainment area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| m. Is project in an approved Transportation Plan, Transportation Improvement Program (TIP) and State Transportation Improvement Program (STIP)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| n. Are construction air, noise, & water impacts major? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| o. Will the project affect or be affected by a hazardous waste site , leaking underground storage tank, oil/gas well, or other potentially contaminated site? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

9. Social Impacts

- | | NO | YES | N/A |
|---|-------------------------------------|-------------------------------------|--|
| a. Will project change land use in the area? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> ¹⁰ |
| b. Are any churches and schools impacted by or adjacent to the project? (If so, list below) | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> ¹¹ |
| c. Has Title VI been considered? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Will any specific groups be adversely affected? (i.e., <i>minorities, low-income, elderly, disabled, etc.</i>) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Are any hospitals, medical facilities, fire police facilities impacted by or adjacent to the project? (If so, list below)..... | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Will Transportation patterns change? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> ¹² |
| g. Is Community cohesion affected by the project? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Are short-term social/economic impacts due to construction considered major? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i. Do conditions warrant special construction times ? (i.e., <i>school in session, congestion, tourist season, harvest</i>) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| j. Were Context Sensitive Solutions considered? (If so explain below)..... | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> ¹³ |
| k. Were bike and pedestrian accommodations considered? (explain below)..... | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> ¹⁴ |

	NO	YES	N/A
I. Will the roadway/bridge be closed? (If yes, answer questions below).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Will a detour bridge be provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Will a detour road be provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Will a detour route be signed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. Permits (Check all permits that may be required)

- | | | |
|--|--|--|
| <input type="checkbox"/> Corps Nationwide | <input type="checkbox"/> CUP/Consistency Determination | <input type="checkbox"/> LA Scenic Stream |
| <input checked="" type="checkbox"/> Corps Section 404/10 | <input type="checkbox"/> USCG Bridge | <input checked="" type="checkbox"/> DEQ WQC |
| <input type="checkbox"/> Levee | <input type="checkbox"/> USCG Navigational Lights | <input checked="" type="checkbox"/> LPDES Stormwater |
| <input type="checkbox"/> Other (explain below) | | |

11. Other (Use this space to explain or expand answers to questions above.)

Public Involvement Events - Public Meeting was held on March 12, 2019

Public Hearing/Opportunity for Requesting a Public Hearing - A Public Hearing will be held.

¹ Section 5 (a,b) – Refer to Relocation section (page IV-5) and Appendix G of the EA .

² Section 7 (a,b) – Refer to Cultural Resources sections (pages III-23 and IV-15) and Appendix A of the EA .

³ Section 8 (a,b) – Refer to Wetlands sections (pages III-30 and IV-30) and Appendix E of the EA.

⁴ Section 8 (c) – Refer to Endangered/Threatened Species sections (pages III-28 and IV-26) and Appendix B of the EA.

⁵ Section 8 (d) – Refer to Flood Plains/Flood Zones section (page III-26) and Hydrology, Floodplains & Flooding section (page IV-31) of the EA.

⁶ Section 8 (e) – Refer to Coastal Zone Status section (page III-32) of the EA.

⁷ Section 8 (g) – Refer to Water Resources (Sole Source Aquifers) sections (pages III-30 and IV-31) of the EA.

⁸ Section 8 (j) – Refer to Traffic Noise and Impacts sections (page IV-17) and Appendix C of the EA.

⁹ Section 8 (k) – Refer to Air Quality Impacts section (page IV-16) and Appendix C of the EA.

¹⁰ Section 9 (a) – Refer to Land Use and Zoning sections (pages III-10 and IV-13) of the EA.

¹¹ Section 9 (b) – Refer to Public Facilities and Services section (page III-12) and Access to Community Facilities and Services section (page IV-14) of the EA.

¹² **Section 9 (f) – Refer to Impacts on Transportation and Traffic section (page IV-2) and Appendix F of the EA.**

¹³ **Section 9 (j) – Refer to Context Sensitive Design / Context Sensitive Solutions sub section (page II-16) of the EA.**

¹⁴ **Section 9 (k) – Refer to Potential Impacts to Bicycle and Pedestrian Facilities section (page IV-5) of the EA.**

Preparer: Bruce J. Richards, AICP, PTP, CTP

Title: Project Consultant

Date: January 8, 2020

Attachments

- S.O.V. and Responses (Appendix)
- Wetlands Finding (Appendix E)
- Project Description Sheet
- Conceptual Stage Relocation Plan (Appendix G)
- Noise Analysis (Appendix C)
- Air Analysis (Appendix C)
- Exhibits and/or Maps
- 4(f) Evaluation
- Form AD 1006 (Farmlands)
- 106 Documentation
- Other _____

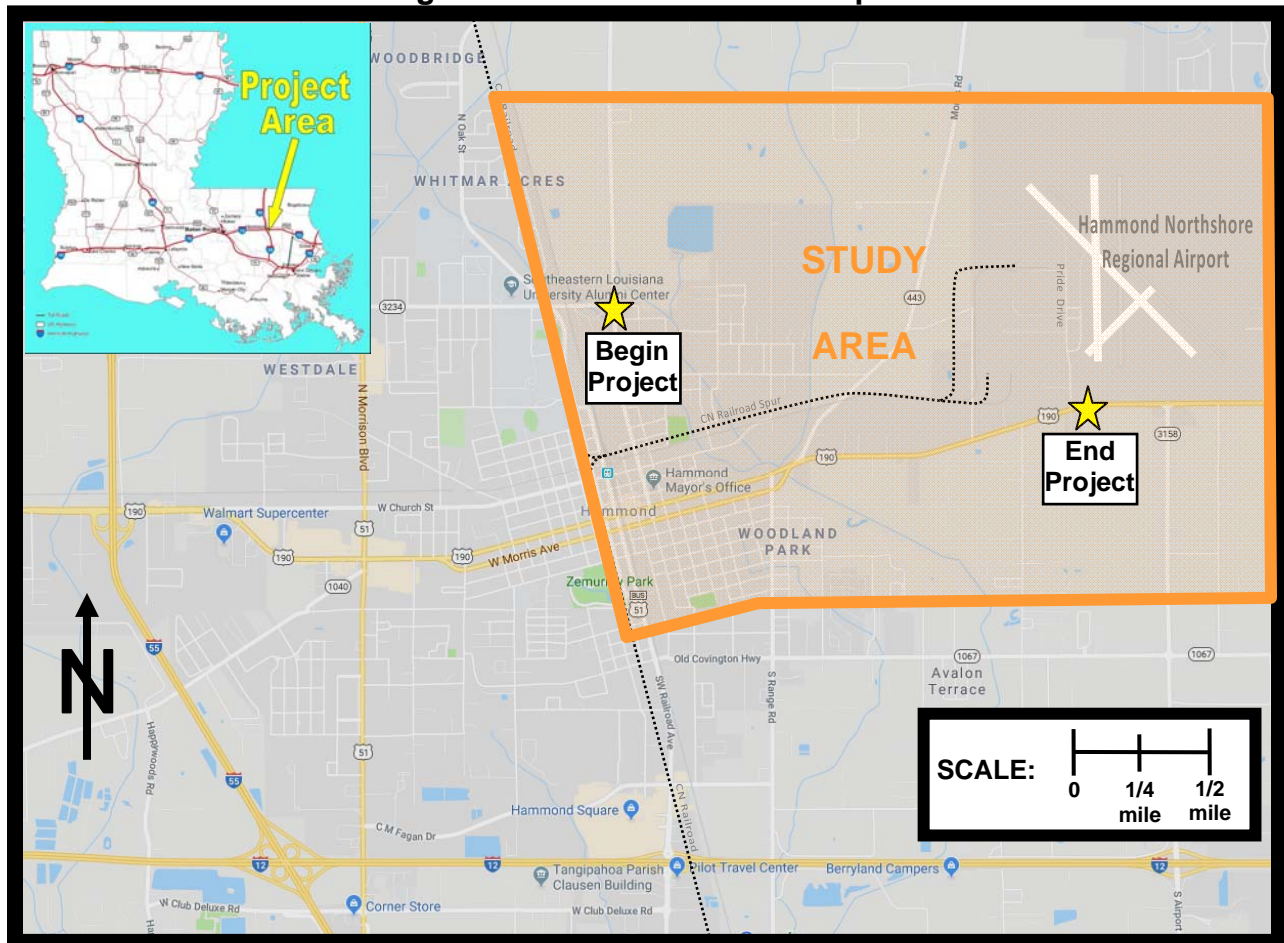
CHAPTER I

INTRODUCTION, PURPOSE AND NEED, AND REPORT ORGANIZATION

INTRODUCTION

A comprehensive study for an Environmental Assessment (EA) has been conducted for the extension of LA Hwy 3234 from LA Hwy 1065 to Hammond Airport in Tangipahoa Parish, LA (see **Figure I-1**, below, for a general location map). The total length of the project is approximately 2½ miles. The Federal Highway Administration (FHWA) is the lead federal agency for this project. This EA was prepared in accordance with the requirements of the National Environmental Policy Act (NEPA) addressing potential social, environmental, and economic impacts.

Figure I-1 General Location Map



Logical termini for the project have been established by the environmental section of the Louisiana Department of Transportation and Development (LADOTD) and the Federal Highway Administration (FHWA) as the Canadian National (CN) railroad on the west, Vineyard Road on the north, Industrial Park Road on the east, and an east-west straight line more-or-less aligned with Iowa Street, E. Park Avenue, and Gorman Road on the south. These termini provide for an adequate study area for both primary impacts (those relating to the footprint of the project) and larger impacts that are less directly affected by project construction and more influenced by project implementation, inclusive of traffic impacts and community, social, and economic impacts.

The project provides for the extension of LA 3234 (East University Avenue) on a new route alignment from its existing terminus at LA 1065 to Hammond Regional Airport. Additional right-of way would be acquired throughout the entire route, and both businesses and residences would be impacted by the requirements for additional right-of-way. The route transits through areas of 100-year floodplain and potential wetlands. Stream crossings will be provided at Drainage Canal L-5, Drainage Canal L-5A, and East Ponchatoula Creek.

Three alternatives are being carried forward from the Stage 0 Feasibility completed in 2011. These have been further developed and refined based on additional traffic analysis, engineering design, and environmental impact analysis.

PROJECT PURPOSE AND NEED

PURPOSE

The purpose of this project is twofold:

- 1. To improve east-west connectivity and access in the Hammond, LA area.**
The Stage 0 Study for LA 3234 Extension was conceptualized by the LADOTD to support intermodal connectivity at Hammond Northshore Regional Airport. The project will improve east-west connectivity through Hammond by extending LA 3234 (East University Avenue) from its current terminus at LA 1065 (North Cherry Street) to Hammond Northshore Regional Airport, thus providing a new direct link for truck and standard vehicular traffic to transit between the Airport area and Interstate I-55.
- 2. Enhance alternative transportation methods (pedestrian and bicycle) by including installation of a complete streets cross-section.**

NEED

- 1. Improve East-West Connectivity and Access in the Hammond, LA area**

The project ties in to the growth of the area around the airport as an industrial center. Available undeveloped acreage with the proper zoning, proximity to both

a north-south and an east-west interstate, as well as the presence of an airport and a rail spur make the project area attractive to such development. Numerous new industrial, warehousing, and distribution facilities have been locating in the vicinity of the airport on three sides (west, south and east) in recent years. This includes such businesses as the Home Depot Distribution Center, Entergy, Cardinal Health, Universal Plant Services, Hansa-Flex USA, CHEP SC, Graham Packaging Company, Wesco Distribution, Baker Distributing Company, the Hammond Campus of Intralox, Coleman American, and XPO Last Mile.

Trucks from these facilities (as well as regular vehicular traffic) usually access I-55 via US Highway 190 east. Just west of the airport, the two-lane roadway splits to form a one-way couplet, with west bound US 190 traffic proceeding along Thomas Street, and east bound US 190 traffic along Morris Street. Both of these streets pass through the heart of Hammond's downtown before rejoining as a two-way route just east of US 51.

The City of Hammond is planning for the airport area to continue to be further developed as such, meaning the amount of truck traffic through the narrow streets of downtown Hammond would increase. The extension of LA 3234 down to US 190 (west of the Airport) would provide a more direct route to and from I-55 for truck traffic with origins/destination at the airport industrial area, as well as vehicular through traffic.

2. Alternative Transportation Methods (Bicycle and Pedestrian)

In July of 2010, the LADOTD enacted a *Complete Streets Policy*. In short, the Complete Streets Policy addresses the needs of pedestrians and bicyclists, and calls for the LADOTD to consider and include (where appropriate) sidewalks and bicycle accommodations along new and reconstruction roadway projects.

Currently, in the project area, very few roadways have facilities for either bicyclists or pedestrians. Experience with other projects in Tangipahoa Parish has shown that the elected officials and citizens of the project area are in agreement that such facilities are needed and desired by those in the community, and in stakeholder meetings and public meetings have expressed their support for developing this new route with a complete streets section to accommodate pedestrians and bicyclists..

PROJECT HISTORY AND BACKGROUND

In conversations with citizens and elected officials in the area, it was noted that a new roadway connection on the eastern side of downtown Hammond has been discussed for many years. A *Stage 0 Feasibility Study and Environmental Inventory for LA 3234 Extension* was completed by Neel-Schaffer in 2011 for the LADOTD.

Key features of the study included:

- Development of a regional travel demand model which was used to estimate future travel demand throughout the Hammond region and to test the travel demand associated with project routing alternatives; and,
- Development of three routing concepts. Initially the study located the eastern terminus at Pride Drive. As the project developed , LADOTD shifted the eastern terminus to the US 190 intersection with LA 3158 (South Airport Road).

The three alternatives as developed in the Stage 0 study were as follows:

- **Alternate A**: Consisted of the extension of LA 3234 from its existing western terminus to the east, intersecting LA 443 and terminating at the existing terminus of Pride Drive. This alternate would have also included improvements along Pride Drive up to US 190 and along US 190 from Pride Drive to LA 3158 (South Airport Road).
- **Alternate B**: Consisted of the extension of LA 3234 from its existing western terminus to the east, intersecting LA 443 and terminating at Pride Drive at Lear Drive. This alternate would also have included improvements along Pride Drive up to US 190 and along US 190 from Pride Drive to LA 3158 (South Airport Road).
- **Alternate C**: Consisted of the extension of LA 3234 from its existing western terminus to the east, intersecting LA 443 and terminating at US 190 at Meyers Road, west of the intersection of US 190 and Pride Drive. This alternate would also have included improvements along US 190 from this intersection to LA 3158 (South Airport Road).

Alternates A and B had a four lane section between LA 1065 (N. Cherry Street) and LA 433 (Morris Road), a three-lane section between Morris Road and US 190, and also had US 190 being upgraded to a four-lane section between Pride Drive and LA 3158 (Airport Road). Alternate C was to be a four-lane facility along its entire length, from LA 1065 to US 190, and included US 190 being widened to 4 lanes between Meyers Road and LA 3158. All three alternatives featured roundabouts at every intersection except at US 190 and LA 3158.

REPORT ORGANIZATION

CHAPTER I – INTRODUCTION, PURPOSE AND NEED, AND REPORT ORGANIZATION

CHAPTER II - REFINEMENT AND DESCRIPTION OF ALTERNATIVES

Chapter II provides an examination of refinement of the Stage 0 Study build alternatives completed under the Traffic Analysis portion and the Line and Grade Study portion of

the Environmental Assessment that resulted in four alternatives-- the No Build Alternatives and the current three (3) considered build alternatives. The considered alternatives are then fully defined and discussed. For the build alternatives, roadway design criteria, which were used in the development of the alternatives, are first discussed. The refined design concepts of the build alternatives are then described. Conceptual project costs are also estimated. Plan view layouts, roadway profiles and typical sections for all three build alternatives are presented at the end of this chapter.

CHAPTER III – THE AFFECTED ENVIRONMENT

In this chapter, the project corridor and study area are first delineated and described. The existing transportation system, including highways and roadways, rail, transit, airport and bicycle & pedestrian facilities are presented. The Chapter concludes with an examination of the affected human environment and natural environment.

CHAPTER IV – ENVIRONMENTAL IMPACTS OF THE CONSIDERED ALTERNATIVES AND SELECTION OF THE PREFERRED ALTERNATIVE

In this chapter, the impacts of the four alternatives considered (the three Build Alternatives and the No Build Alternative) are assessed relative to the evaluation categories of transportation and traffic, human environment, and the natural environment. The chapter then provides a comparative analysis between the four alternatives based on their ability to meet the project Purpose and Need, and describes the selection of the Preferred Alternative.

CHAPTER V – PUBLIC PARTICIPATION, AGENCY COMMENTS AND COORDINATION

This chapter describes the public participation process for the project, including documentation of the public meeting and public hearing and coordination efforts associated with the development of the project. These efforts included meetings with LADOTD, FHWA, other agencies and elected officials and a Solicitation of Views requesting written comments on the project.

CHAPTER VI – THE PREFERRED ALTERNATIVE: IMPACT SUMMARY, MITIGATION MEASURES AND PERMITS

The Direct Impacts to the transportation system and the human and natural environments as a result of the implementation of the Preferred Alternative are listed. For unavoidable adverse impacts, this chapter provides a discussion of mitigation measures recommended to reduce those adverse effects. The indirect and cumulative impacts of the Preferred Alternative are also examined in this chapter. Commitments made to further the project are then described. The Chapter concludes with a section listing the permits required to complete the project.

CHAPTER VII – REFERENCES AND APPENDIX

The Environmental Assessment concludes with this chapter. The References section lists publications, websites and other sources of information used in the writing of this document. The Appendix lists the stand-alone documents and other data which were completed as part of this EA and are considered part of this EA. The Appendix also includes the Solicitation of Views (SOV packet example, letters, and SOV responses) and formal agency responses received during the EA review process. Finally, the Appendix also includes the Design Report for Minimum Design Guidelines as required by LADOTD.

CHAPTER II

REFINEMENT AND DESCRIPTION OF ALTERNATIVES

Chapter II provides an examination of the refinement of the Stage 0 Study build alternatives completed under the Traffic Analysis portion and the Line and Grade Study portion of the Environmental Assessment. This refinement resulted in four alternatives--the No-Build Alternative and the current three (3) considered build alternatives. All of the alternatives are then fully defined, beginning with the No-Build Alternative and followed by the three (3) Build Alternatives. For the build alternatives, roadway design criteria which were used in the development of the alternatives are first discussed. The refined design concepts of the build alternatives are then described. Conceptual project costs are also estimated. The conceptual project cost section includes text describing the component cost estimates and assumptions used in determining costs for:

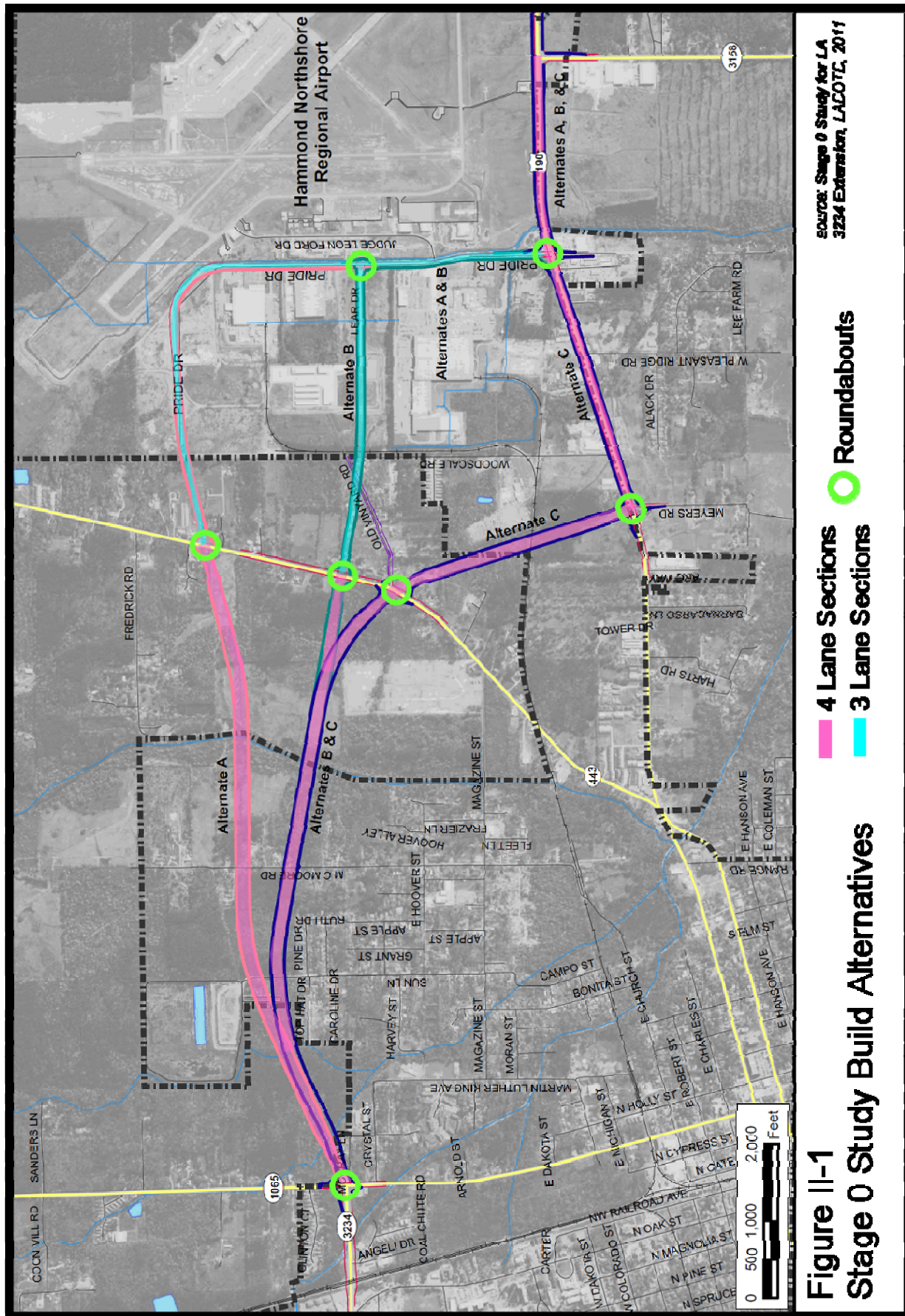
- Main Roadway
- Utilities
- Right-of-Way Acquisition and Relocation
- Contingencies
- Engineering Design Cost
- Environmental Mitigation

Plan view layouts, roadway profiles and typical sections for all three build alternatives are presented at the end of this chapter.

ALTERNATIVE REFINEMENT

ANALYSIS AND REFINING OF EARLIER ALTERNATIVES

The starting point for build alternative refinement was the earlier 2011 Stage 0 Study. That study proposed three new build alternatives. Alternates A & B had a four-lane section between LA 1065 (N. Cherry Street) and LA 433 (Morris Road), a three-lane section between Morris Road and US 190, and US 190 being improved to a four-lane section between Pride Drive and LA 3158 (Airport Road). Alternate C was to be a four-lane facility along its entire length, from LA 1065 to US 190, and US 190 would be widened to four lanes between Meyers Road and LA 3158. All three alternatives featured roundabouts at every intersection except at US 190 and LA 3158. These build alternatives are presented on the following page as Figure II-1.



Source: Stage 0 Study for LA 3234 Extension, LACOTC, 2011

█ 4 Lane Sections
█ 3 Lane Sections
○ Roundabouts

**Figure II-1
Stage 0 Study Build Alternatives**

REFINEMENT OF BUILD ALTERNATIVES UNDER TRAFFIC STUDY

In February 2017, the Stage 1 Environmental Assessment process was initiated. The first step in this process was undertaking a Traffic Study. The purpose of the traffic study was to analyze the extension of LA 3234 with updated traffic data.

Project Research

All historical traffic data such as all the data from the Stage 0 study as well as traffic signal inventories (TSIs) within the study area was provided by the LADOTD and Tangipahoa Parish. Traffic data collected in 2011 for the Stage 0 study was compared to traffic data collected for this project in 2017.

Initial Data Collection

An Initial Data Collection Report was prepared in the first half of 2017 and included the data collection and methodology used to recommend peak periods. The peak periods were recommended to be 7:00 – 9:00 AM and 2:30 – 5:30 PM. The Initial Data Collection Report also included an evaluation of crash history and speed characteristic data.

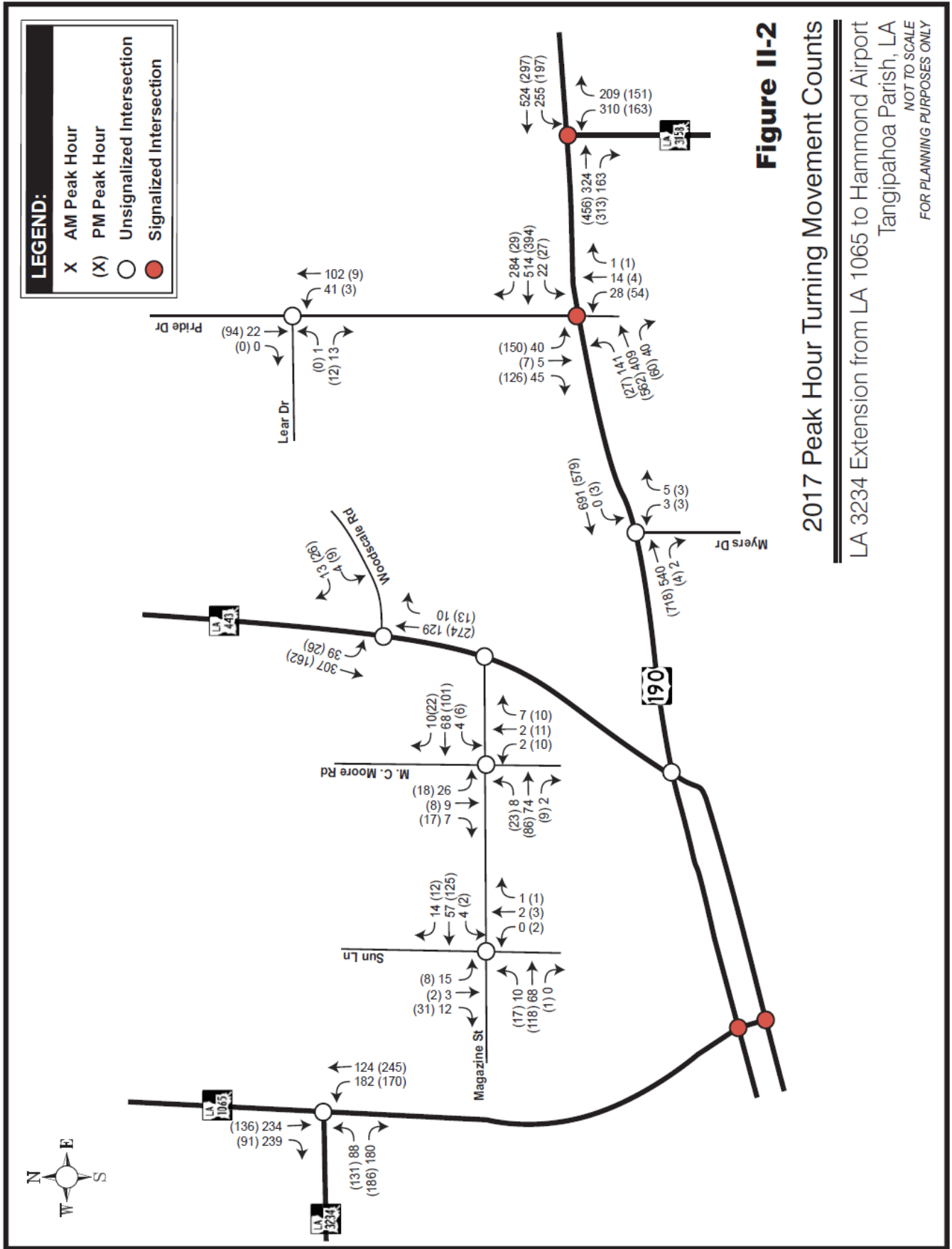
Final Data Collection

A Final Data Collection Report was prepared and included turning movement counts, queue data and unmet demand for the study intersections for the peak hours. All counts were taken in accordance with LADOTD Signal Design Manual at times approved by LADOTD. The 2017 Peak Hour Turning Movement Counts are presented in **Figure II-2** on the following page. The 2017 peak hour turning movement counts were compared to the 2011 Stage 0 turning movement counts and were determined to be acceptable.

Issues with Traffic Volume Projections

The project team began their traffic analysis, including projections of future volumes for the design year of 2035, but in late July 2017 both the LADOTD and the consultant team noticed there were issues in the projected volumes. There were locations at either end of the project with noticeable differences between the 2015 Stage 0 projections and the new 2017 counts.

Furthermore, the Year 2035 Stage 0 Alternative projections had some notable anomalies: first, movements that should not be affected by a new roadway were changing noticeably, and second, there were some volumes that would be changed with a new roadway, but the change in volume appeared suspect (too large or small; reversed peak hour) particularly differences in the earlier Stage 0 No-Build volumes versus the new Stage 1 No Build volumes.



LADOTD staff and the consultants met in September 2017 to discuss, followed by further research. It was found that the model used in the Stage 0 Study was not the New Orleans Regional Planning Commission (RPC) nor Capital Regional Planning Commission (CRPC) model, but a regional demand TransCAD model specifically for the Hammond area (the Stage 0 future traffic volumes were developed using this model). LADOTD and the team also found that there were anomalies in the volume projections taken from the Stage 0 data, and there were a few formula mistakes or inconsistencies in the Stage 0 figures

The project team then received an Extra Work Letter from the LADOTD to perform certain tasks to determine if the traffic volume projections from the Stage 0 study were logical and usable.

Change in Traffic Data Source and Approach

In February 2018, after completion of the extra work tasks, LADOTD made the decision that the traffic volume projections from the Stage 0 study were NOT logical and usable, and that the Stage 0 data would no longer be part of the solution. LADOTD made a requested of the RPC to use their regional transportation models (TransCAD), as they are the Metropolitan Planning Organization (MPO) for southern Tangipahoa Parish. The RPC agreed to this request.

The RPC completed and forwarded their TransCAD model runs, which the consultant team then reviewed and began making future volume projections and undertaking further traffic analysis. However, upon review of the analysis, LADOTD called a meeting at the end of July 2018, at which they put forth a new approach to follow in both the traffic analysis AND in the design of the project:

- While TransCAD model data is most useful on a regional level, the TransCAD data at the intersection level presents questionable data. LADOTD felt that using intersection volumes developed using TransCAD data could result in incorrect, possibly over-designed intersections.
- LADOTD desired to move forward by only performing traffic analysis with ADT volumes to determine each alternative's required roadway cross section (two-lane, three-lane, four-lane).
- LADOTD planned to use existing intersection control at the alternative alignment tie-in points, with intersection analysis to be performed at a later time, when improvements are warranted due to traffic demand.
- US 190 improvements shown in the Stage 0 study will NOT be included in the alternative alignments.

The consultant team then completed the traffic analysis.

Traffic Analysis

No Build Volumes and Analysis

Volume output from the RPC's TransCAD models was reviewed to assist with estimating projected No Build volumes. The 2015 Base Year and 2044 No Build Average Daily Traffic (ADT) data from the RPC's TransCAD models were used to develop a future growth rate. The ADTs used were on US 51 near LA 3234, LA 3234 near US 51 and US 190 at Pride Dr. The TransCAD output volumes used for this calculation are presented below in **Table II-1**.

Table II-1
TransCAD Volumes used for Growth Rate Calculation

Location	Existing 2015 (veh/day)	No Build 2044 (veh/day)	Growth Rate
US 51 (Near LA 3234)	25,206	28,522	0.4
LA 3234 (Near US 51)	16,061	30,532	2.2
US 190 (@Pride Drive)	12,024	18,049	1.4
Total	53,291	77,103	1.2

Based on **Table II-1**, a 1.2% yearly growth rate was estimated. The 2017 Existing counts were grown by 1.2% per year for 18 years to estimate 2035 design year No-Build volumes. The resulting No-Build volumes are presented in **Figure II-3**.

Build Volumes and Analysis

The RPC TransCAD build models for Alternative Alignments A, B and C were utilized to develop a methodology to reroute volumes for the proposed roadway extensions. A review of the AM and PM peak period TransCAD output data indicated a high level of uncertainty and questionable volume changes between the No-Build and Build models at the study area intersections. TransCAD model volume output data is not intended to be used as absolute, especially at the micro level such as peak periods at intersections. Model output is a useful tool as it predicts changes to traffic patterns on a macroscopic level. Using questionable TransCAD data to develop Build volumes could result in incorrect, possibly over-designed intersections. For this reason, Build peak hour intersection volumes were not developed for this study. Existing intersection control could be used where the three new alternatives are aligned with existing intersections. Where new intersections are created, stop condition for the minor street could be put in place. Further study should be done at these intersections after construction to determine intersection improvements based on actual volume demand.

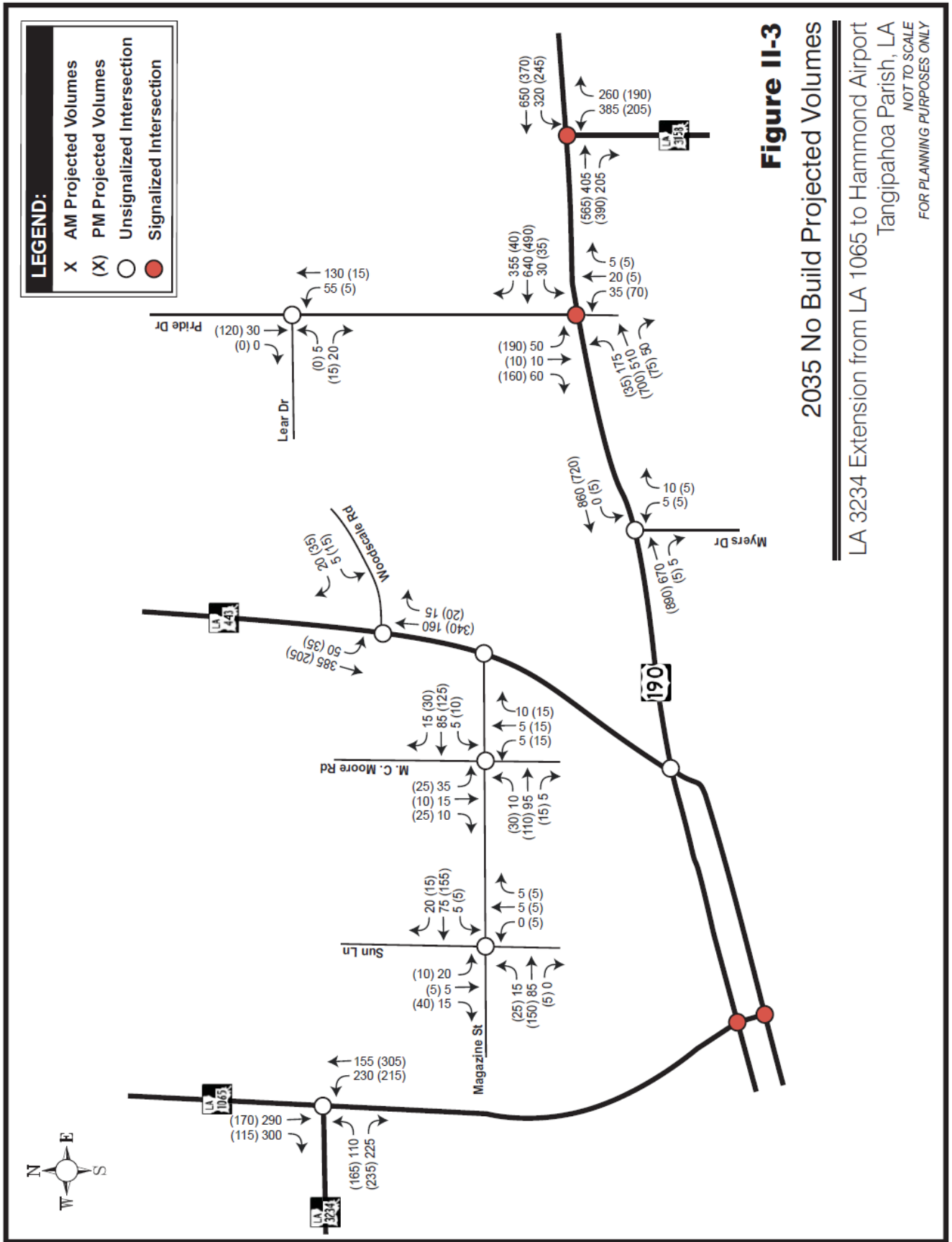


Figure II-3
2035 No Build Projected Volumes

LA 3234 Extension from LA 1065 to Hammond Airport
Tangipahoa Parish, LA
NOT TO SCALE
FOR PLANNING PURPOSES ONLY

A review of the TransCAD model ADT outputs indicated that in the situation of this project, the most reliable TransCAD data were the ADTs on LA 3234 and US 190. TransCAD ADT volume outputs on the alignments could be used to determine the appropriate roadway section for each alignment. Volumes were calculated for the 2035 design year by reducing the 2044 TransCAD ADTs by the 1.2% growth rate for 9 years. These calculations are presented in **Table II-2**.

**Table II-2
2044 and 2035 Build TransCAD Volumes**

Alternative Alignment	Build 2044 ADT (veh/day)	Growth Rate	Calculated 2035 ADT (veh/day)
A	15,293	1.2%	13,736
B	17,289	1.2%	15,529
C	8,777	1.2%	7,884

Typical roadway section thresholds were estimated based on Exhibit 16-16 in the *Highway Capacity Manual, 6th Edition*. **Table II-3** presents typical roadway sections based on Levels of Service (LOS) and ADTs thresholds.

**Table II-3
Typical Roadway Sections
based on Levels of Service and ADTs**

Two-Lane Streets			Four-Lane Streets		
LOS C	LOS D	LOS E	LOS C	LOS D	LOS E
7,000 veh/day	14,300 veh/day	16,500 veh/day	14,900 veh/day	30,200 veh/day	33,100 veh/day

Source: HCM Chapter 16/Urban Street Facilities, assuming the values K = 0.10, D = 0.55 and speed limit is 45 mph.

A review of **Table II-3** indicates that a two-lane roadway section could be adequate for Alternative C. Alternatives A and B are near the LOS D/E thresholds for a two-lane section and a four-lane section could be underutilized. A three-lane section is recommended for Alternatives A and B to allow the left turns to move out of the through lane allowing more capacity from a two-lane section.

Improvements/ widening on US 190 should be in place per TransCAD long range plan prior to the construction of the new alignment and coincide with its specific alternative.

NEPA-DERIVED ALTERNATIVE DISCUSSION

As per the consultant team's Scope of Work (item 1.K), "as the project progresses, the LADOTD and the Consultant shall discuss this the need for a NEPA-derived alternative (a 4th Build Alternative). If it is determined that such an alternative needs to be

developed, analyzed, and advanced along with the Stage 0 alternatives, this would be done through a supplement to this agreement."

The possibility of a NEPA (National Environmental Policy Act) derived alternative was discussed early in the life of the project at the project kick-off meeting. After refinement of the 3 build alternatives was complete, it was further discussed at the project progress review meeting on February 6th, 2019. At that meeting, the conceptual engineering drawings of the alternatives were presented to LADOTD, with the understanding that a final decision would be made following the Stakeholder Meeting on February 20th, 2019 and Public Meeting on March 12th, 2019.

At the Project Progress Review Meeting held on March 27th, 2019, the NEPA-Derived Alternative was discussed:

- The consultant team, having completed most of their impact analysis of the three routes, could see no other routes that would have fewer environmental impacts than the current alternatives.
- The project team and LADOTD staff noted that at the Stakeholder Meeting, no other possible routing alternative had been suggested.
- At the Public Meeting, as one attendee was looking at the exhibits, he stated in a conversation with staff that a more northerly alternative might be considered, but using the same endpoints as Alternative A (current LA 3234 terminus and dead end of Pride Drive). However this statement was never given as part of a formal written or oral comment. LADOTD Staff and the consultant team agreed that a more northerly route using these same endpoints would not have fewer impacts, if anything it would likely have more impacts. The idea of a more northerly variation of Alternate A would not be considered as a NEPA-derived Alternative.
- Another attendee, in a set of written formal comments, suggested a more northerly route connecting Pride Drive to Natalbany Road (LA 1064), with a new interchange constructed at I-55 where Natalbany Road currently overpasses the interstate. LADOTD staff and the consultant team agreed that this route is far beyond the purpose and need of the project. It would need nearly twice the length of new roadway as the other alternatives, and would require a new interstate interchange. It also would likely require a new roadway crossing of the CN railroad, improvements to Natalbany Road, and given the length of the project could likely involve more natural environmental impacts. As such, a northern alternative using Natalbany Road would not be considered as a NEPA-derived Alternative.
- At the Public Meeting, two attendees looking at the exhibits commented to staff that they did not like the idea of more traffic on University Avenue and a southerly route would be better. No further details were provided on this idea, and this statement was never given as part of a formal written or oral comment. Consultant staff looked at the possibility of a southerly route, but there are several factors that make this idea untenable: it does not meet the purpose and need of the project; it would need to cross a portion of Hammond that is already highly developed, and there is no existing access point/interchange with I-55 between the US 190 interchange and the I-12 interchange. It would likely have more impacts than the current three alternatives. As such, the project team and

LADOTD staff agreed that the idea of a southerly route would not be considered as a NEPA-derived Alternative.

The LADOTD and project team thus agreed that there would be no NEPA-derived 4th Build Alternative, and that the No-Build Alternative and the existing 3 Build Alternatives would remain the only ones under consideration.

ALTERNATIVES CONSIDERED

Beginning below, the considered alternatives are fully defined, beginning with the No-Build Alternative and followed by Alternates A, B, and C.

NO-BUILD ALTERNATIVE

The No-Build Alternative looks at the project study area without the project but with other planned improvements that would take place regardless of whether the project is constructed.

Transportation Projects

There are several other transportation projects planned for the project study area and outside of the study area which would affect traffic flows in the corridor. The RPC lists several projects in their *Metropolitan Transportation Plan 2048 South Tangipahoa Urbanized Area FY 2019 – 2048* that have impacted or will impact the project study area and would affect travel and traffic volumes along roadways in the study area. It should be noted that extension of LA 3234 itself is listed in this transportation plan as a Tier 2 projects.

These projects are briefly described below:

Tier 1 Highway Projects (Fiscal Years 2019 - 2022)

IC Several RR Xings (Hammond) - This project is to install railroad signals and gates at several CN/IC railroad crossings in Hammond.

Tangipahoa PH Local Road Safety Upgrade – This project involves installation of signs, striping pavement markings and other safety improvements.

Hammond Bike Routes - This project includes examining and constructing improvements for bicycle routes in Hammond.

LA 3234 (University Ave.) Puma Dr. to US 51 Sidewalks - This project includes installation of pedestrian sidewalks on LA3234 west of the Study Area.

Tier 2 Highway Projects (Fiscal Year 2023-2032):

LA 3234 Extension from LA 1065 to Hammond Airport – This project is the one currently under study in this EA, and involves a new highway extension from the current terminus of LA 3234 eastward to the vicinity of Hammond Airport.

Tier 3 Highway Projects (Fiscal Year 2028-2043):

(none in project area)

BUILD ALTERNATIVES

Design Criteria

Existing LA 3234 (E. University Ave.) is an undivided 4-lane section west of LA 1065 (N. Cherry St.) and is posted 45 miles per hour (mph). LA 3234 is classified as a minor arterial (urban) on the LADOTD Hammond Urbanized Area map.

The eastern terminus of the Stage 0 EA alternatives is US 190, which is a 3-lane section but is planned to be a 4-lane roadway prior to an extension of LA 3234 being constructed. US 190 is classified as a principal arterial (urban) on the LADOTD Hammond Urbanized Area map with a posted speed limit of 45 mph west of Pride Drive, and a 55 mph east of Pride Drive.

All Stage 0 alternatives begin at LA 1065 (N. Cherry St.) which is classified as a minor arterial (urban) on the LADOTD Hammond Urbanized Area map. LA 1065 is a 2-lane roadway and is posted 35 mph south of LA 3234 (E. University Ave.). Any improvements to LA 1065 (N. Cherry Rd.) at the intersection with LA 3234 would be based on an urban arterial with a 35 mph design speed.

All three Stage 0 alternatives cross LA 443 (Morris Rd.) which is classified as a minor arterial (urban) on the LADOTD Hammond Urbanized Area map. LA 443 (Morris Rd.) is a two lane roadway and is posted 45 mph south of Magazine St. Any improvements to LA 443 (Morris Rd.) at the intersection of the LA 3234 alternatives would be based on an urban arterial roadway with a 45 mph design speed.

Alternatives A and B include widening of Pride Drive. This local road is posted 35 mph and is not shown on the LADOTD Urbanized Area map. Alternative B also widens Lear Drive. This is a local road and is not shown on the LADOTD Urbanized Area map.

All other existing roads crossing or connecting to the Stage 0 alternatives are 2-lane local streets and not shown on the LADOTD Hammond Urbanized Area Map.

The extension of LA 3234 will continue to function as an urban arterial.

The roadway geometry shall meet the LADOTD's *Roadway Design Procedures and Details Manual*. A curb and gutter section is recommended for an urban setting.

Based on the Louisiana LADOTD Minimum Design Guidelines dated March 6, 2017, Table II-4 below presents the criteria for the LA 3234 proposed typical section. The proposed extension of LA 3234 will be based on maintaining the current 45 mph posted speed limit.

**Table II-4
Design Criteria**

LA 3234 EXTENSION (LA 1065 TO HAMMOND AIRPORT)			
URBAN ARTERIAL			
	PREFERRED	ACCEPTABLE	PROPOSED
Design Speed			45 mph
Lane Width	12 ft.	11 ft.	12 ft.
Shoulder Width	4 ft. outside 1 ft. inside	1 ft. each side	5 ft. outside (See Note 1)
Shoulder Type	Paved	Paved	Paved
Bridge Width	Travel Lanes + 4 ft. (Each Side)	Approach Travel Lanes + Shoulder Width	Travel Lanes + 5 ft. (Each Side) (See Note 1)
Vertical Clearance	16.5 ft.	16.5 ft.	16.5 ft.
Lateral Offset	8 ft. (Non-tangent) 4 ft. (Tangent)	1.5 ft. 3.0 ft. (At intersection and drives)	8 ft. (Non-tangent) 4 ft. (Tangent)
Superelevation (e_{max} 4%)			
Normal Crown	1080 ft.	1080 ft.	1080 ft.
Reverse Crown	772 ft.	772 ft.	772 ft.
Full Super	711 ft.	711 ft.	711 ft.
Cross Slope			
Travel Lane	2.5%	2.5%	2.5%
Shoulder	5.0%	5.0%	5.0%
Longitudinal Grade	Max 5%	Max 5%	Max 5%
Slopes			
Fore Slope	4:1	4:1	4:1
Back Slope	3:1	3:1	3:1
Median Width	N/A	N/A	N/A
Two Way Left Turn Lane			16 ft.
Complete Streets			
Sidewalk Width	5 ft.	5ft.	5 ft.
Sidewalk offset From travel lane	>8 ft.	2 ft.	>8 ft.
Bike Lane Width	5 ft.	5 ft.	5 ft.
Notes:			
1) The 5 ft. shoulder is proposed to satisfy complete streets criteria for a bike lane.			
2) All design elements satisfying "Acceptable" but not satisfying "Preferred" will require a Design Waiver during design.			
3) All design elements not satisfying "Acceptable" will require a Design Exception during design.			

Design Concept

Typical Sections

The proposed typical section for Alternatives A and B is a 3-lane curb and gutter section with a 16' continuous left turn lane including a 5' bike lane on each side of the roadway and a 1' gutter for a total gutter to gutter width of 52'.

The proposed typical section for Alternative C is a 2-lane curb and gutter section with a 5' bike lane on each side of the roadway with a 1' gutter for a total gutter to gutter width of 36'.

At the western project limit, the roadway will tie into the existing four-lane LA 3234.

The apparent existing right-of-way width for Pride Dr. is 80'. The apparent existing right-of-way width for Lear Dr. is 50'. Both will require widening and additional right-of-way.

Horizontal Alignment and Geometric Design Features

Each of the three alternatives being considered meets or exceeds the Design Report. For each alternative, any shifts in horizontal alignment were accomplished using smooth curvature. LADOTD's *Roadway Design Procedures and Detail Manual* (Road Design Manual) was used to define the roadway geometry. Reverse curves (a curve in one direction followed closely by a curve in the opposite direction) are used to maintain the existing roadway alignment shift along Selsers Canal. Where reverse curves were used, a straight tangent section of roadway is included between the curves to provide a comfortable transition between the adjacent curves. The Road Design Manual requires a 100' minimum tangent section between the reverse curves and more than this was provided.

The minimum length of horizontal curve used was 349.7' in Alternatives A and B to maintain the exiting reverse curve alignment of Pride Dr. along Selsers Creek. All other horizontal curve lengths exceed the Road Design Manual minimum curve length.

The smallest curve is in Alternative A, with a 775' radius which will require a reverse crown. All other curves are larger and flatter than the minimum 1080' radius included in the Design Report for normal crown.

Consideration was given to the land use and property improvements, along the proposed alignments. Plan-Profile views of each alternative are shown at the end of this chapter.

Vertical Profile

The proposed profile of Alternatives A, B and C generally follows a light rolling grade needed for curb and gutter drainage. For locations not within the 100-year floodplain,

the proposed profile is slightly lower than the existing grade to provide for over curb drainage, minimizing the required right-of-way width. In areas indicated to be within the 100-year floodplain, the roadway is raised to keep the pavement base above the 100-yr. Base Flood Elevation (BFE). In these areas, a wider right-of-way is required due to slope considerations.

The profile is designed for 45 mph and uses vertical curves that are long enough to promote sight distance and a smooth, comfortable drive. The profile considered the intersecting side streets to avoid low points at the intersecting side streets along the proposed route, which could create drainage issues.

These profiles have resulted in the side streets needing to be raised to meet the proposed roadway for a short distance.

The conceptual profile uses near-minimum length vertical curves at small intervals to follow the apparently flat grade of the existing roadway with ditches.

During the design process, these vertical curves will likely be elongated and a number of the crests and sags eliminated as more detailed topographic survey information becomes available. The proposed roadway alignment and profile can be found in the engineering drawings at the end of this chapter.

The profile was also raised at the proposed bridge crossing of E. Ponchatoula Creek and at the box culvert crossings of Canal L-5 and L-5A to provide freeboard.

Drainage Considerations

The drainage area of the proposed extension flows generally north to south and is collected by Ponchatoula Creek (just to the west of LA 1065) by Canal L-5, Canal L-5A, E. Ponchatoula Creek and Selsers Creek.

Ponchatoula Creek and E. Ponchatoula Creek converge on the north side of US 190 with a bridge crossing of Ponchatoula Creek. Canal L-5 and Canal L-5A converge together just north of N. Harvey Street, which is south of Alternative A, B and C. The crossing under N. Harvey Street is a double barrel box culvert.

The proposed alignments will not change the existing LA 3234 bridge over Ponchatoula Creek, west of the project starting point. The proposed alignments include multiple barrel box culverts for the crossing of Canal L-5 and L-5A. The crossing of E. Ponchatoula Creek is proposed as a bridge.

According to the most recent FEMA (Federal Emergency Management Agency) Flood Insurance Rate Maps (FIRM) this area is covered by maps 22105C0430F (July 22, 2010) and 22105C0435F (July 22, 2010). A Base Flood Elevation (BFE) for the project area is shown for Ponchatoula Creek and E. Ponchatoula Creek:

- BFEs or base flood elevations are shown for Ponchatoula Creek and E. Ponchatoula Creek.
- Elevation (EL) 43.5 on Ponchatoula Creek at the existing LA 3234 bridge
- EL 42.5 on E. Ponchatoula Creek for Alternatives A & B (interpolated)
- EL 41.5 on E. Ponchatoula Creek for Alternative C (interpolated)
- No BFEs or base flood elevations are shown for Selsers Canal. However, the Airport manager did report that Selser Canal overflowed its banks into Pride Dr. briefly, twice in 2016.

Subsurface drainage will be included for all of the LA 3234 extension. Cross drains will be included in the subsurface drainage for the proposed LA 3234 extension.

The proposed typical section includes curbs, which will require curb inlets and drop inlets in a closed, urban drainage system.

Bridge

The bridge over E. Ponchatoula Creek is proposed as a 165' long precast concrete girder bridge (three 55 ft. spans). It is proposed to be supported on precast concrete pile bents with LG-36 girders.

The bridge section for Alternative C will match the roadway section with two 12' lanes, two 5' bike lanes and two 1' gutters for a total gutter to gutter width of 36'. In addition, the bridge will include a 5' sidewalk for pedestrians on the outside, separated by a barrier rail. The bridge for Alternatives A and B will also include the 16' continuous left turn in the roadway section, with a total gutter to gutter width of 52'.

Complete Streets - Bicycle and Pedestrian Facilities

From the beginning of the project, it was the consensus of the LADOTD, local officials and the consultant team that the LA 4234 Extension would be a "Complete Street" and include facilities for not only motorized vehicles, but also bicyclists and pedestrians.

Utilities

Private utilities requiring relocation include Entergy, Southern Lights, NTS, Hunt Telecom, AT&T, Verizon, and Atmos Energy. Public utilities include sewer and water. The utility companies with facilities along the proposed alignments were contacted for planned future utility expansions. However, none indicated any immediate plans.

With mostly new alignment for the extension of LA 3234, the impact on utilities will be limited to crossing of existing roads and widening of existing roadways except for a pipeline crossing between M C Moore Rd. and LA 443 (Morris Rd.). The pipeline is in servitude and will require protection for the pipeline at the road crossing.

LA 3234 west of LA 1065 (N. Cherry St.), the starting point, will not be widened, so there will be no impacts to utilities along LA 3234, west of LA 1065. There are existing aerial and underground utilities on the west side of LA 1065. However, as LA 1065 is not being widened at this intersection there should be no utility relocations along LA 1065 at this intersection.

There are no utilities along the east side of LA 1065 to be impacted by the extension of LA 3234 for Alternatives A, B and C.

All three of the proposed alignments, Alternatives A, B and C, cross Sun Lane, M C Moore Road and LA 443 (Morris Rd.). Alternative B also crosses Wood Scale Road. At these street crossings, the existing utilities along these streets will need to be relocated. These relocations include power pole relocations and raising of power lines and aerial communication lines. The underground facilities include water mains, sewer force mains, gas mains and fiber optic lines which will need to be relocated or lowered where they exist. Gravity sewer manholes will need to be adjusted to grade.

Where the proposed alignments widen an existing street (Alternatives A and B), all utilities will need to be relocated for the widened roadway. These include the same utility impacts as for the street crossings. The street widening includes Pride Dr. for Alternative A. Alternative B will require widening of Lear Dr. and Pride Dr.

Those utilities with existing servitudes are considered to be a cost to the project if relocation or protection is required for the proposed widening. None of the utilities stated any servitudes. However, AT&T fenced facilities on the east side of Pride Dr. near US 190 are expected to be in servitude. Pride Drive is not proposed to be widened to the east side at this location.

Historical costs for water and sewer work were used to determine a project cost.

Other than the pipeline, no other utilities are believed to have prior rights along the proposed alignments. Therefore, most of the utility relocations will be made at the owner's expense.

Context Sensitive Design / Context Sensitive Solutions

During the development of the alternatives, there was consideration of context sensitive design and context sensitive solutions. These considerations included:

- Limiting required right-of-way (and lessening associated impacts) by using a three-lane section for alternatives A& B and a two-lane facility for Alternative C, instead of the four-lane section used for all alternatives in the Stage 0 study. Traffic analysis indicates that a two-lane roadway section could be adequate for Alternative C, while Alternatives A and B are near the LOS D/E thresholds for a two-lane section and a four-lane section could be underutilized.
- Making the new route safe for all users by developing a complete streets project that includes facilities for bicyclists and pedestrians.

- The project used a shared stakeholder vision as a basis for decisions. Meeting with stakeholders were held during alternative development, and a public meeting was held in which citizen input was received and considered.
- The possibility of a new, separate NEPA (National Environmental Policy Act)-derived alternative was discussed throughout the life of the project. Following the public meeting, the LADOTD and consultant team, having completed most of their impact analysis of the three routes, could see no other routes that would have fewer environmental impacts than those of the current alternatives.

CONCEPTUAL PROJECT COST

CONSTRUCTION COST

Construction quantities for the proposed action were derived from the typical sections and the plan layouts as shown at the end of this chapter. Unit prices are based on Louisiana Department of Transportation and Development (LADOTD) 4th quarter 2018 unit prices.

Construction costs were divided into the following basic groups: Roadway, Bridge, Right-of-Way & Relocation, Utilities, and Contingencies.

Roadway

The at-grade roadway cost estimate includes construction of new roadway, curbs, striping and subsurface drainage. The area of proposed construction is mostly flat. Concrete pavement was assumed for estimating purposes along the roadway corridor.

Bridge

The bridge cost estimate includes construction of a new bridge with precast concrete girders on precast concrete pile bents with embankment and approach slabs. This is typical LADOTD bridge construction for this type of crossing.

Below is a description and cost breakdown per alternate:

Alternates A & B (Three Lanes)

- Deck Width: 67.5 feet
- Bridge Length: 165 feet
- Includes: precast concrete piles, concrete bent caps and risers, precast/prestressed concrete girders (LG-36), concrete deck, concrete barrier rail, concrete pedestrian barrier rail, concrete abutments, approach slabs, guard rails, striping, test piles & 10% mobilization

Square feet:	Cost per sq. ft:	Total Cost:
11,138	\$155.00	\$1,726,313

Alternate C (Two Lanes)

- Deck Width: 51.5 feet
- Bridge Length: 165 feet
- Includes: precast concrete piles, concrete bent caps and risers, precast/prestressed concrete girders (LG-36), concrete deck, concrete barrier rail, concrete pedestrian barrier rail, concrete abutments, approach slabs, guard rails, striping, test piles & 10% mobilization

Square feet:	Cost per sq. ft:	Total Cost:
8,498	\$168.00	\$1,427,580

Utilities

Utility costs include costs for the relocation of existing utilities that have been identified with the utility companies as being a cost to the project. Private utilities are considered to be relocated at the utility provider’s cost unless the utility has stated they have a basis for the project paying for the relocation. During design, the utility will have to provide the basis for the project paying the relocation costs.

Noise Barriers

\$102,600 is included for construction of a reasonable and feasible Noise Barrier in the area just north of McCray Lane for Alternates A and B. This figure is based on the LADOTD’s 2016 Noise Barrier Cost Table.

Right-of-Way Acquisition and Relocation

Private property will need to be acquired to construct each Build Alternative. The methodology employed in the determination of estimated costs for private property involved research of property for sale and recent sales in the project area. Right-of-way acquisition costs include land, improvements, damages, appraisal fees, acquisition fees, relocation fees and other costs.

Contingencies

A 25% construction cost contingency was included for this concept-level study.

OTHER PROJECT COSTS

Engineering Design Costs

Prior to construction, the project will need to be fully engineered, not only the actual design, but also including surveying, geotechnical investigation, construction testing and inspection. Using a baseline estimate of 15% of the construction cost, engineering costs for design and construction would range between \$3.39 and \$5.11 million.

Environmental Mitigation

The last project cost would be cost of mitigation of any unavoidable impacts. One possible cost of mitigation has already been identified, that of wetland impacts: The USACE has implemented the Louisiana Wetland Rapid Assessment Method (LRAM) to assess compensatory mitigation requirements resulting from wetland impacts associated with activities permitted under Section 404 of the Clean Water Act (CWA). The LRAM model evaluates five factors to assess the “impact site(s)” and provides an overall impact value (I). These five factors include wetland status, habitat condition, hydrologic condition, negative influences, and impact type, each producing their own value (I) dependent upon the impact site being assessed. By summing all (I) values from each of the five factors, the impact value (I) is derived. The (I) is then multiplied by the acreage of an impact project to determine the total number of LRAM debits generated.

Mitigation potentials (M) per acre are assigned to each type of compensatory mitigation plan. The allowable types of compensatory mitigation plans include the use of an appropriate mitigation bank, in-lieu fee program, or an individual permittee responsible mitigation project. Nine mitigation factors are utilized in LRAM to derive M when evaluating each plan. These nine factors include mitigation type, management, kind, project implementation, development impacts, oil & gas impacts, size, corridor, buffer and upland inclusions, each producing their own value (m) dependent upon various options for that factor. By summing all m values from each of the nine factors, the mitigation potential (M) is derived. Dividing the LRAM debits generated from the impact factors of the site, by the mitigation potential (M) of the mitigation bank (or other compensatory mitigation plan being used), the required acreage of compensatory mitigation credits is obtained.

The project team evaluated the potential impacts to wetlands within the three alternatives using the LRAM to estimate compensatory mitigation. The impacted habitat type for this calculation is Bottomland Hardwoods (BLH) within the Lake Pontchartrain Basin. The status of BLH habitat is secure, meaning that it is not scarce when compared to other wetland habitat types (e.g. freshwater marsh). The selection of “high” for hydrologic and habitat conditions and “low” for negative influences ensures that the mitigation results will be estimated at the high end of the cost range. Selecting the impact type as full and permanent is also the conservative choice, although restoration of any temporary impacts from construction activities such as access and staging could reduce the mitigation costs.

The team collected recent mitigation credit purchase prices from four commercial mitigation banks within the Lake Pontchartrain Basin, and calculated a range of costs to offset assessed impacts from the proposed project. For purposes of the study cost estimate, an average of the mitigation cost estimates (four for each Alternative) were used.

SUMMARY

Table II-5 below presents detailed conceptual project cost estimates for each Build Alternative. The total conceptual project cost estimate for Alternative A is \$47,737,854; the cost for Alternative B is \$48,175,453; and the cost for Alternative C is \$31,960,415. As of the date of this document, there is no current funding source identified for designing or constructing this project.

Costs are shown for each major component of the construction project. The costs for Alternatives A and B are similar with three lanes and less for Alternative C with two lanes and a shorter overall length. These cost estimates are accurate for the level of detail of this study but will likely change after more detailed design.

TABLE II-5: Conceptual Project Cost Estimate

	Alternative A	Alternative B	Alternative C
Road Construction	\$20,575,000	\$19,072,000	\$12,920,000
Bridge Construction	\$1,726,313	\$1,726,313	\$1,427,580
Noise Barriers	\$102,600	\$102,600	N/A
Right-of-Way & Relocation	\$10,511,500	\$12,525,100	\$8,079,000
Utilities	\$1,050,100	\$805,700	\$196,000
Subtotal	\$33,965,513	\$34,231,713	\$22,622,580
Contingencies (25%)	\$8,491,378	\$8,557,928	\$5,655,645
Engineering (15%)	\$5,094,827	\$5,134,757	\$3,393,387
Mitigation	\$186,136	\$251,055	\$288,803
Total Project Cost	\$47,737,854	\$48,175,453	\$31,960,415

PROJECTED OPERATIONS AND MAINTENANCE COSTS

The annual total operation and maintenance costs for the each of the alternatives include the annual cost of maintenance for the roadway and bridge, re-striping the roadway and bridge every five years, concrete panel replacement periodically, bi-annual bridge inspections and clearing of debris hang-ups on the E. Ponchatoula Creek Bridge after high water events and periodic cleaning of bridge joints. The costs of routine grass cutting on the right-of-way and sweeping the roadway are not kept by LADOTD. They are considered negligible.

Alternatives B and C also include a railroad grade crossing with signalization that requires monthly, quarterly, semi-annual and annual inspections. The inspections are prepared for the LADOTD and Federal Railroad Administration (FRA). The grade crossing will require annual maintenance every year and full reconstruction every 12 to 16 years to maintain a smooth ride over the rails. The railroad signalization requires periodic maintenance and full replacement approximately every 20 years.

Typical maintenance costs were obtained through previous discussions with LADOTD Operations and Maintenance Department Staff and LADOTD unit prices. Access to the E. Ponchatoula Creek Bridge for inspections under the bridge may be limited and may require a snooper along with an operator and a 2-man inspection team for a 1/2 day per structure with pre-cast girders. High water debris removal from E. Ponchatoula Creek would require the use of a back-hoe or crane with operator, a 4-man crew of laborers, flagmen and supervisor and a truck with driver for removal and disposal with a duration of 1/2 day per event.

Typical inspection costs for the railroad grade crossing and routine maintenance upgrades are based on discussions with railroad personnel.

Table II-6 below gives a breakdown of the annual operations and maintenance costs:

**Table II-6
Build Alternatives
Annual Operation and Maintenance Costs**

O&M Category	Alternative A	Alternative B	Alternative C
Re-Striping	\$11,375	\$9,900	\$3,900
Periodic Concrete Panel Replacement	\$49,100	\$42,725	\$23,200
Bridge Inspections	\$3,050	\$3,050	\$3,050
River Debris Removal	\$1,500	\$1,500	\$1,500
Railroad Grade Crossing (Inspection & Maintenance)	\$0	\$62,100	\$59,200
TOTAL:	\$65,025	\$119,275	\$90,850

CONSTRUCTION PHASING

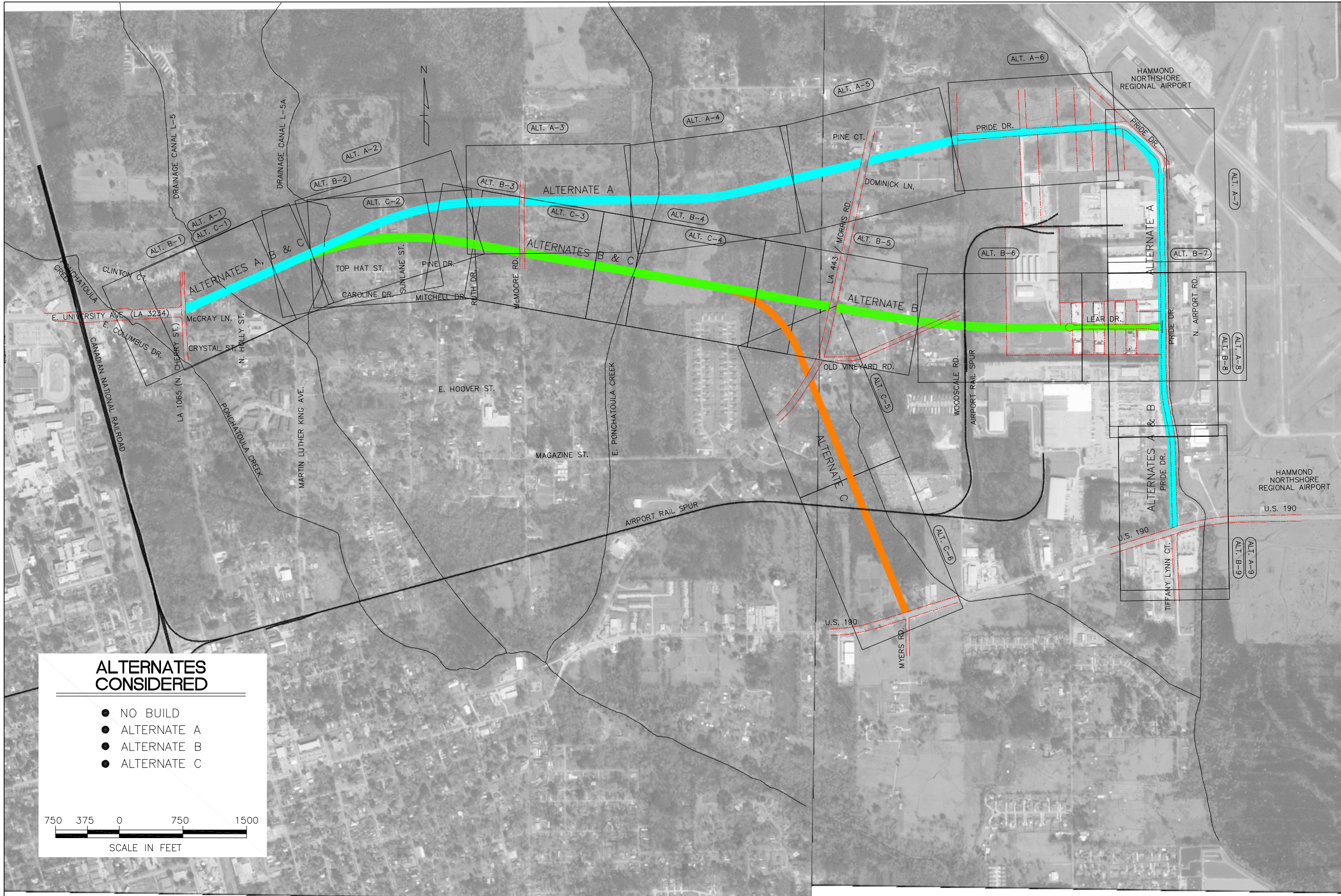
The proposed extension of LA 3234 as a two or three lane facility excludes an option of opening a section of the roadway to traffic while construction continues on the remainder of the extension.

The widening of Lear Drive for Alternative B includes replacing the existing pavement while maintaining local access to businesses along Lear Drive. The widening of Pride Drive includes replacing most of the roadway while maintaining local access to business along Pride Drive and off of Pride Drive as well as the main access to the airport.

Construction of the LA 3234 extension in two phases, from LA 1065 to LA 443 and from LA 443 to US 190 could be considered, but the traffic benefits from the extension would not be expected until the entire route was complete.

ENGINEERING DRAWINGS

Plan and profile view layouts and typical sections for the Build Alternatives are presented beginning on the following page.



ALTERNATES CONSIDERED

- NO BUILD
- ALTERNATE A
- ALTERNATE B
- ALTERNATE C

750 375 0 750 1500
SCALE IN FEET

LEGEND

- ALTERNATE A REQ'D. ROW
- ALTERNATE B REQ'D. ROW
- ALTERNATE C REQ'D. ROW
- EXISTING ROW



N-Y ASSOCIATES, INC.

PLAN LAYOUT ALTERNATES
SHEET INDEX

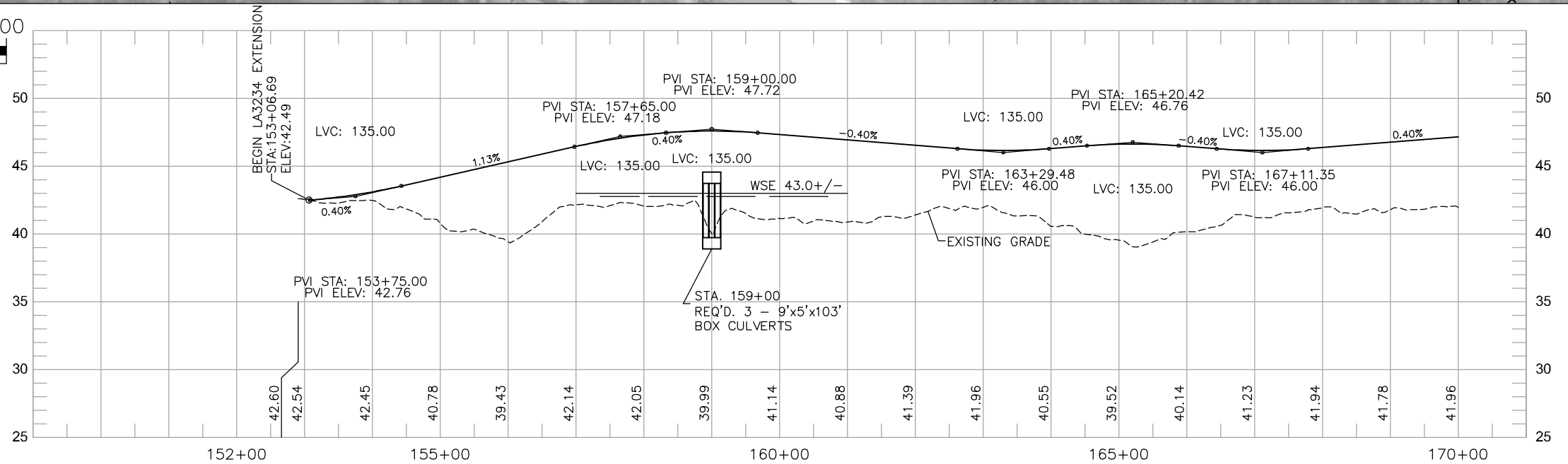
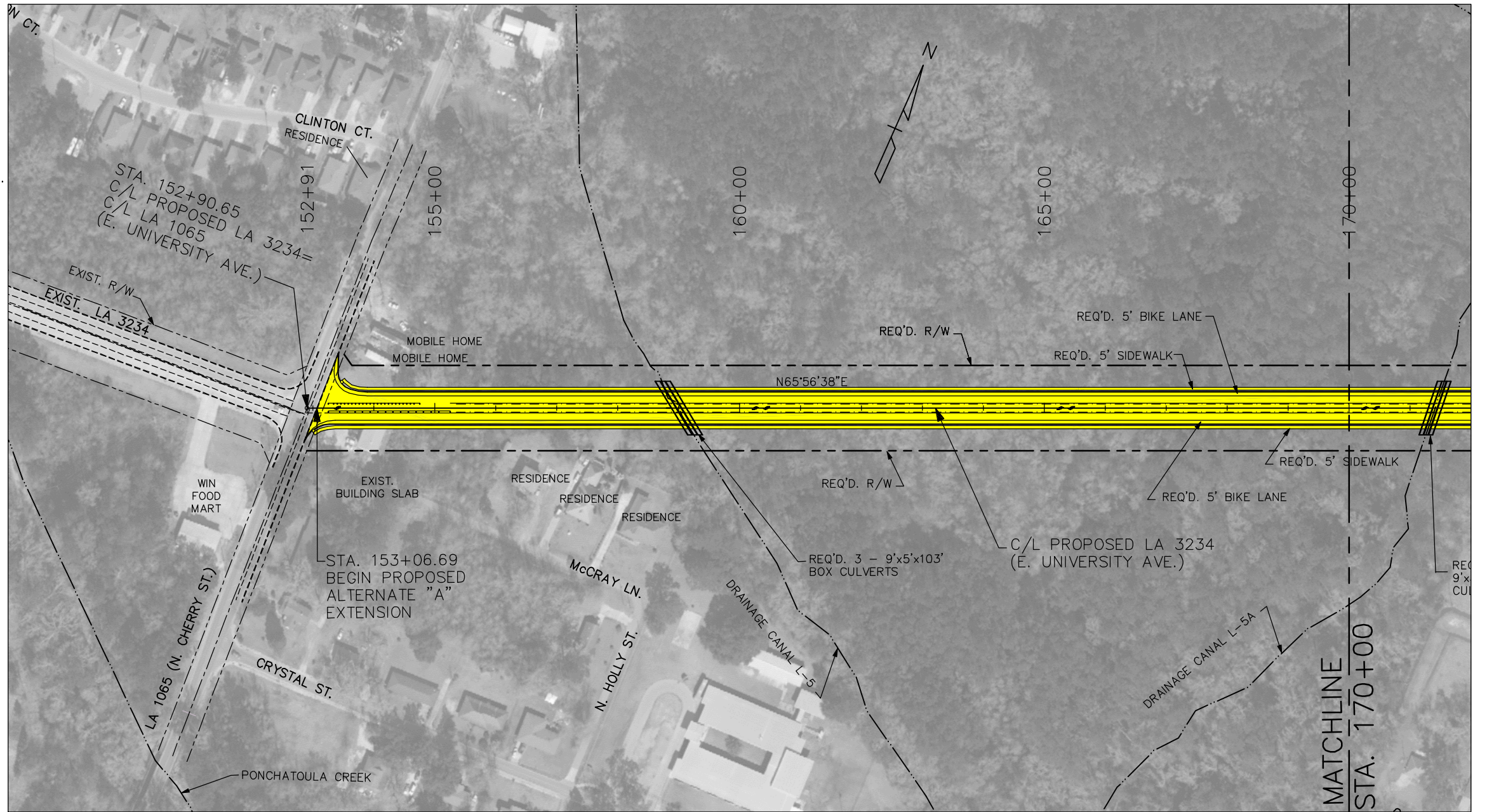
LA3234 EXT. (LA1065-AIRPORT)



PARISH	TANGIPAHOA	SHEET NUMBER
CONTROL SECTIONS	H008915	
STATE PROJECT	H.008915.2	

LEGEND

- PGL PROFILE GRADE LINE
- C/L PROPOSED ROADWAY
- PROPOSED BRIDGE STRUCTURE
- PROPOSED ROADWAY, S.W. OR SHLDR./BIKE PATH
- PROPOSED REQ'D. R/W
- APPARENT EXIST. R/W
- MATCHLINE
- EXISTING SIGNALIZED INTERSECTION



SHEET NUMBER	ALT. A-1
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CHECKED	DGV
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REVISION OR CHANGE ORDER DESCRIPTION	
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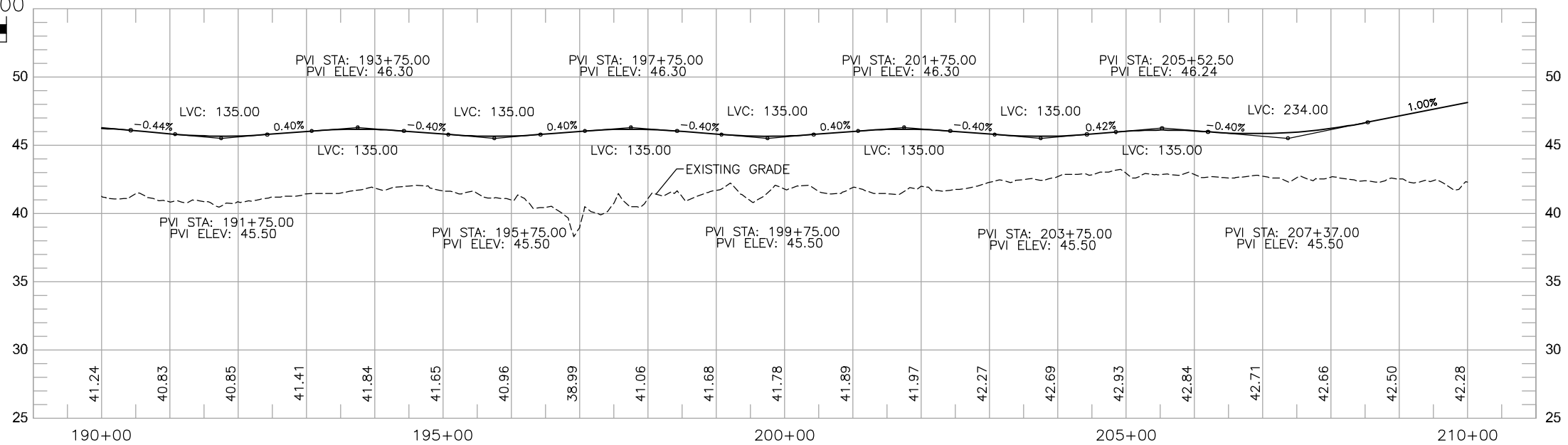
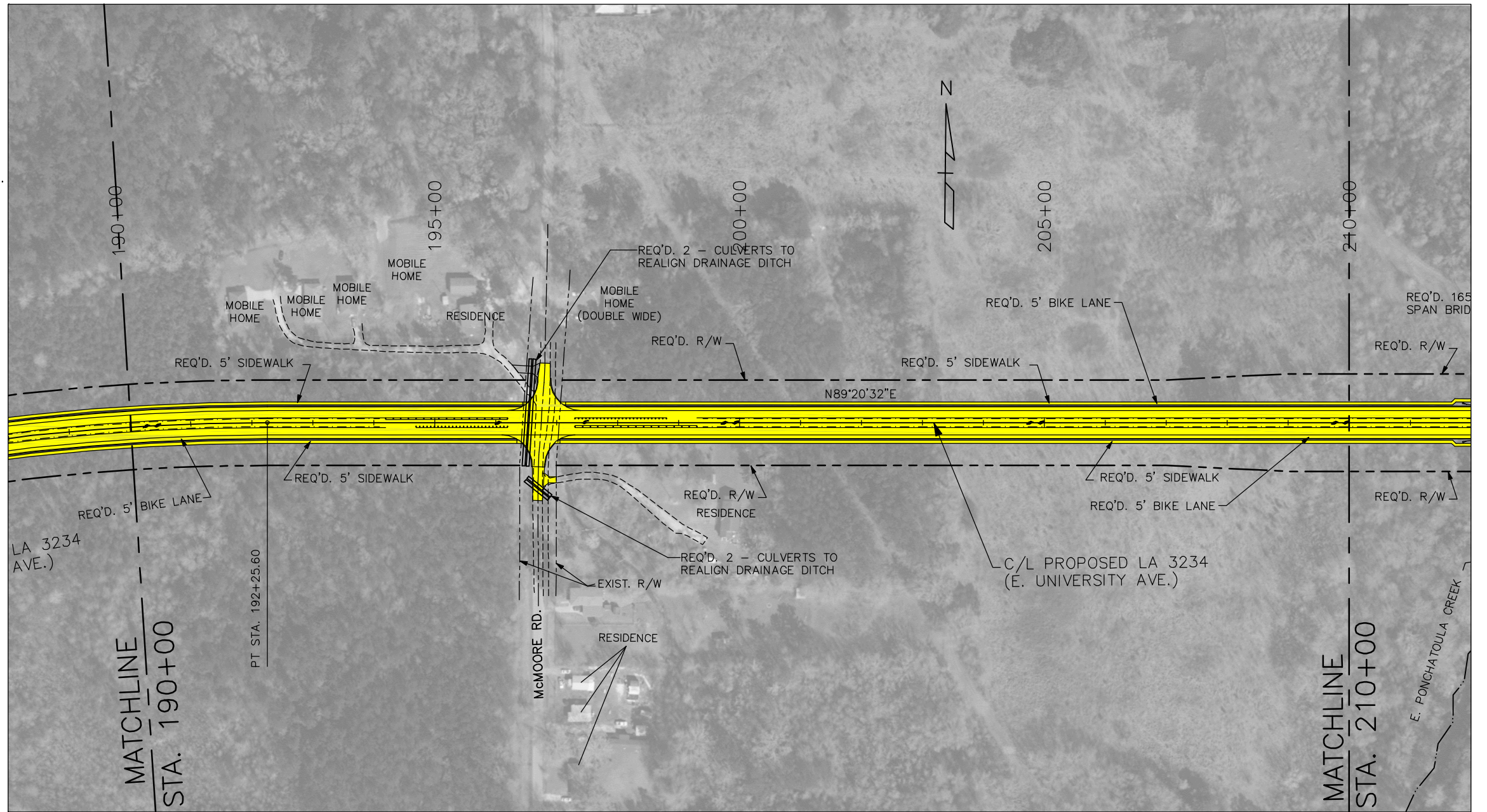


PLAN LAYOUT - ALTERNATE A
LA3234 EXT. (LA1065-AIRPORT)



LEGEND

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- PROPOSED BRIDGE STRUCTURE
- PROPOSED ROADWAY, S.W. OR SHLDR./BIKE PATH
- PROPOSED REQ'D. R/W
- APPARENT EXIST. R/W
- MATCHLINE
- EXISTING SIGNALIZED INTERSECTION



SHEET NUMBER	ALT. A-3
TANGIPAHOA	
CONTROL SECTIONS	H008915
STATE PROJECT	H.008915.2
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DESIGNED	3 OF 9
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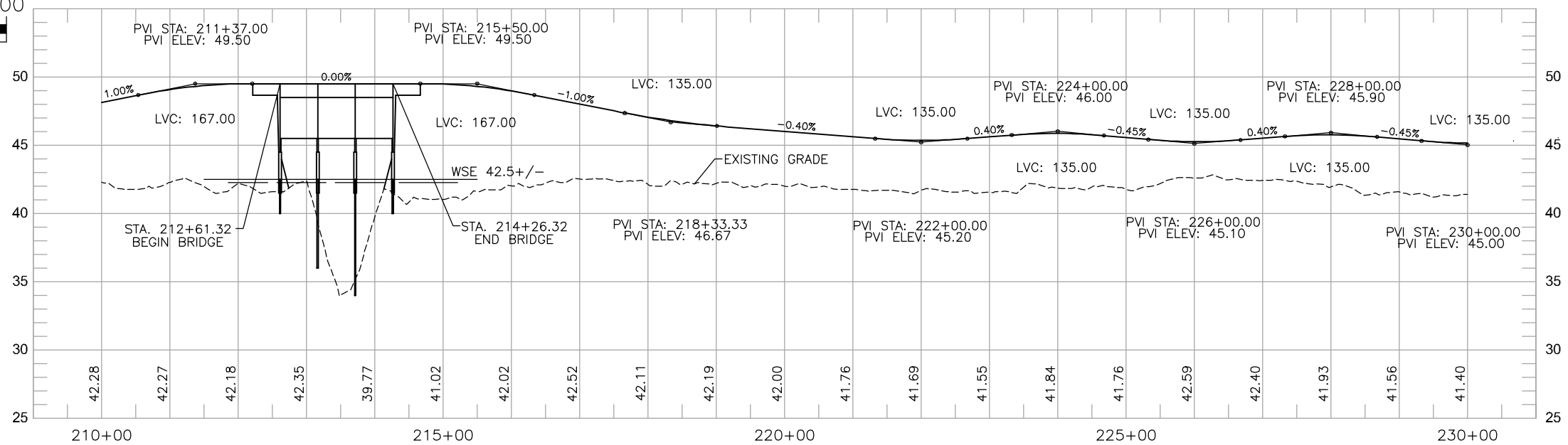
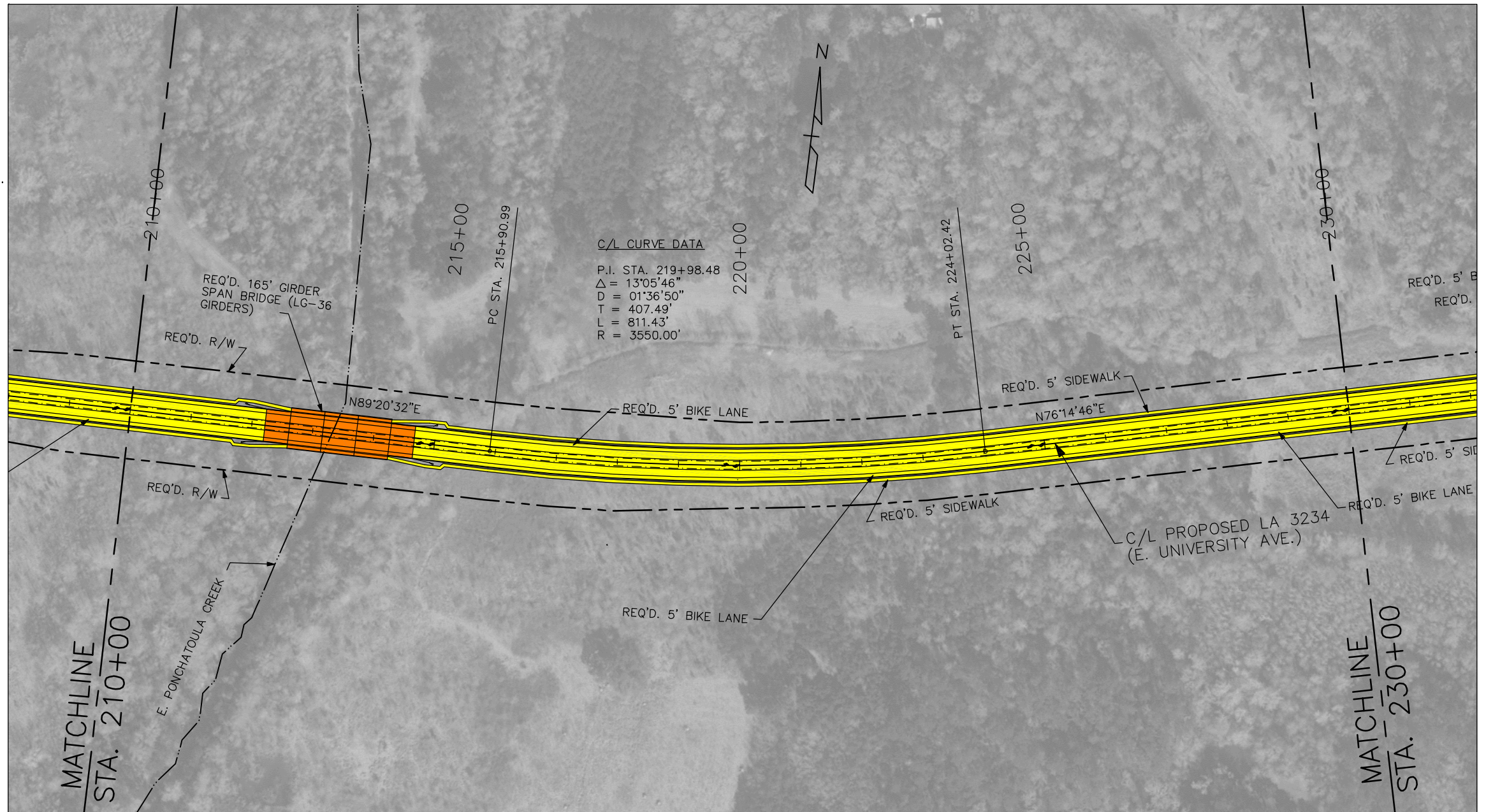
PLAN LAYOUT - ALTERNATE A

LA3234 EXT. (LA1065-AIRPORT)

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HY ASSOCIATES, INC.

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- PROPOSED BRIDGE STRUCTURE
- PROPOSED ROADWAY, S.W. OR SHLDR./BIKE PATH
- PROPOSED REQ'D. R/W
- APPARENT EXIST. R/W
- MATCHLINE
- EXISTING SIGNALIZED INTERSECTION



SHEET NUMBER	ALT. A-4
TANGIPAHOA	
CONTROL SECTIONS	H008915
STATE PROJECT	H.008915.2
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DESIGNED CHECKED	REVIEWED CHECKED
SERIES NUMBER	4 OF 9
REVISION OR CHANGE ORDER DESCRIPTION	BY
NO.	DATE

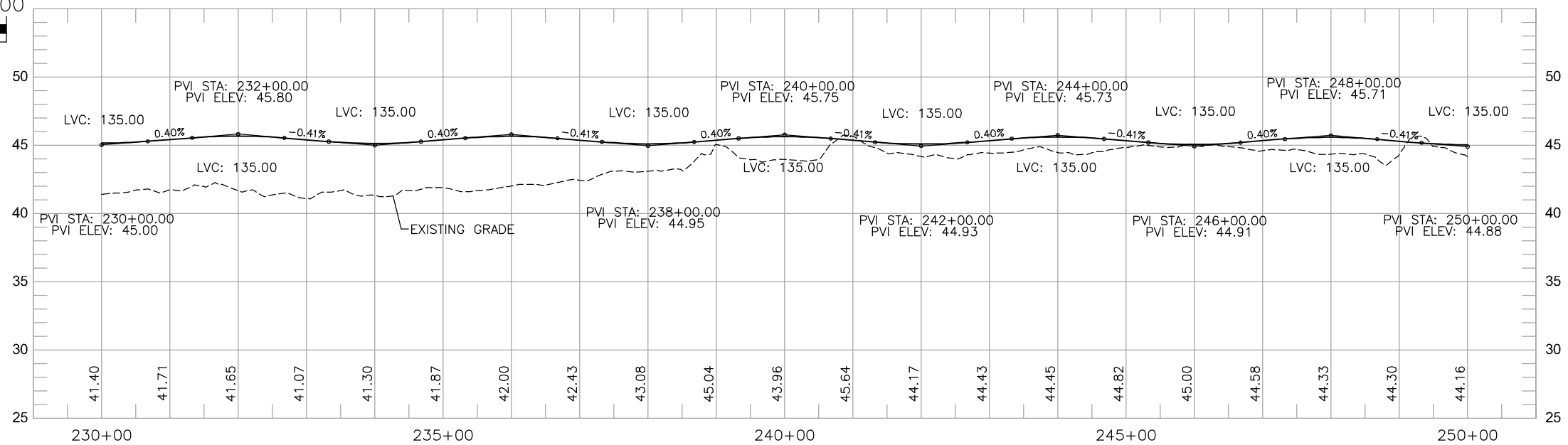
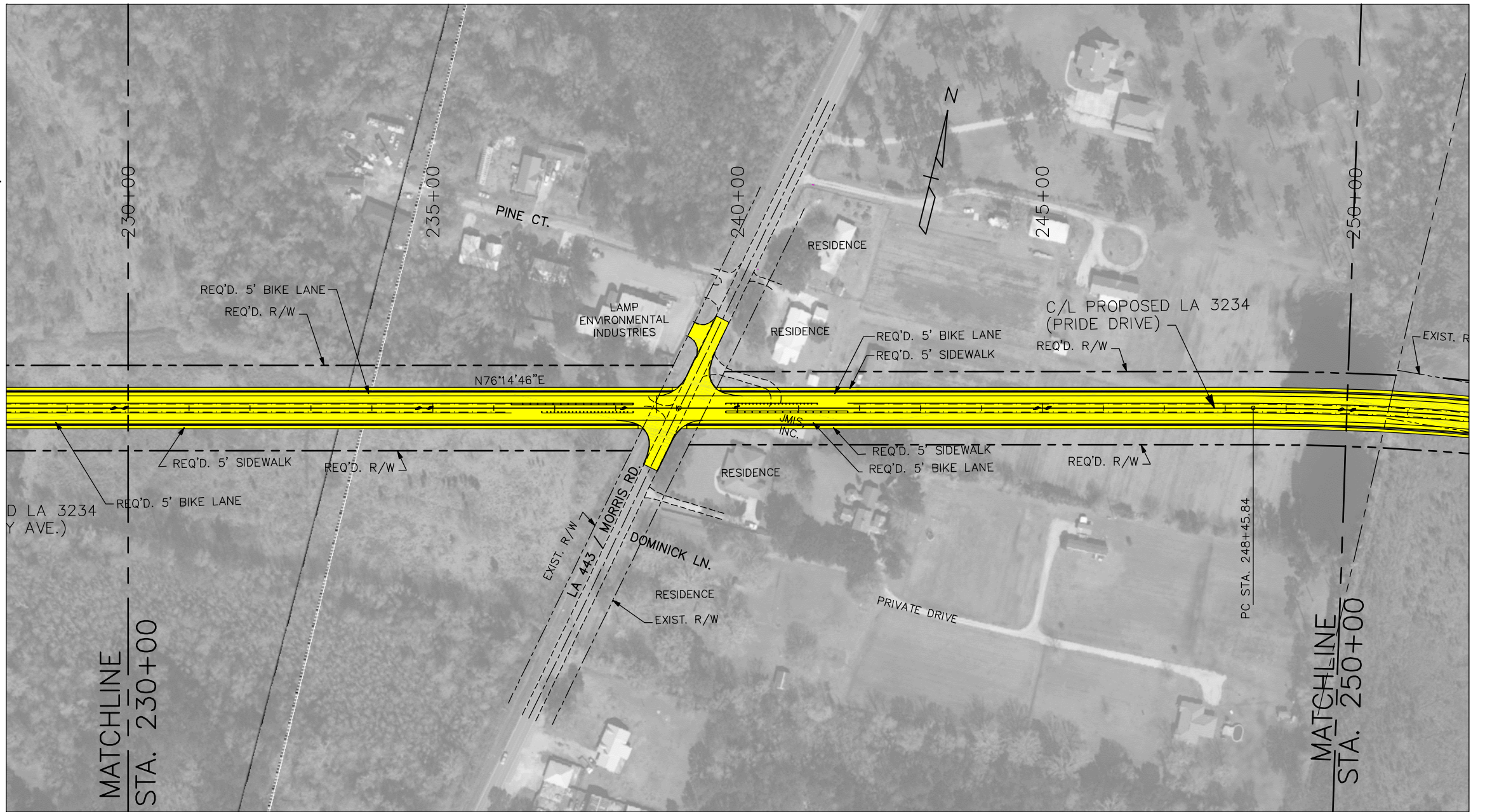


PLAN LAYOUT - ALTERNATE A
 LA3234 EXT. (LA1065-AIRPORT)



LEGEND

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- PROPOSED ROADWAY, S.W. OR SHLDR./BIKE PATH
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- APPARENT EXIST. R/W
- MATCHLINE
- EXISTING SIGNALIZED INTERSECTION



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DATE	
NO.	
BY	
REVISION OR CHANGE ORDER DESCRIPTION	
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CONTROL SECTIONS	H008915
STATE PROJECT	H.008915.2
JES DGV	5 OF 9
DGV JES	
SERIES NUMBER	

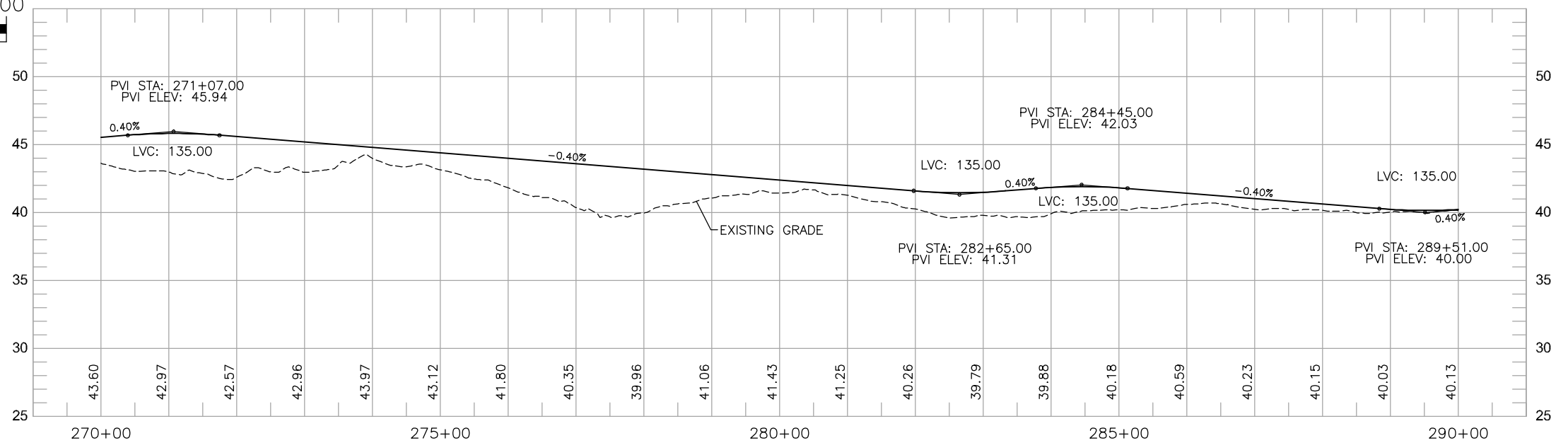
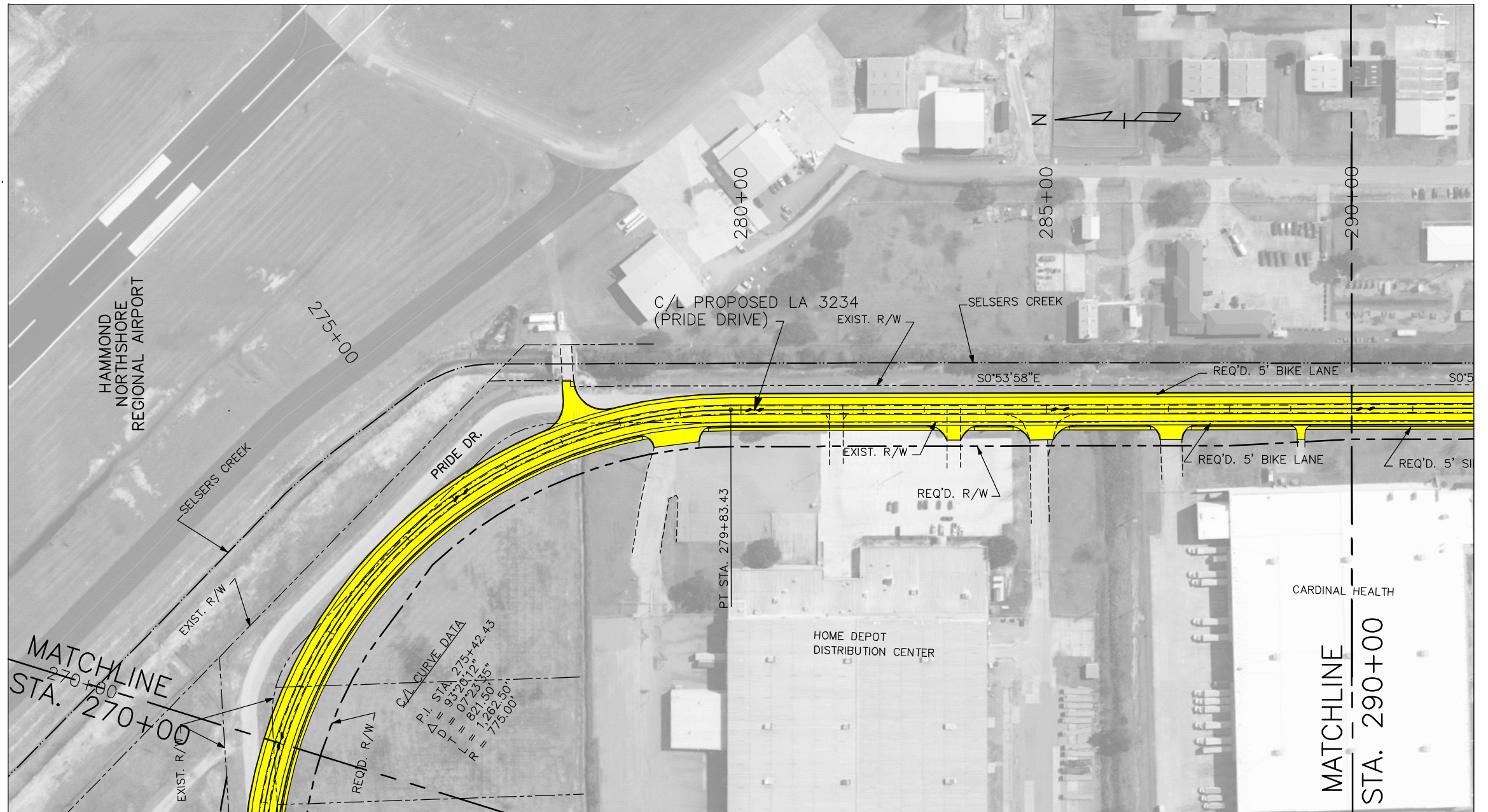


PLAN LAYOUT - ALTERNATE A
 LA3234 EXT. (LA1065-AIRPORT)



LEGEND

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- PROPOSED BRIDGE STRUCTURE
- PROPOSED ROADWAY, S.W. OR SHLDR./BIKE PATH
- PROPOSED REQ'D. R/W
- APPARENT EXIST. R/W
- MATCHLINE
- EXISTING SIGNALIZED INTERSECTION



SHEET NUMBER	ALT. A-7
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CHECKED	DGV
RETAINED	JES
CONTROL SECTIONS	H008915
STATE PROJECT	H.008915.2
PARISH	TANGIPAHOA
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SERIES NUMBER	7 OF 9
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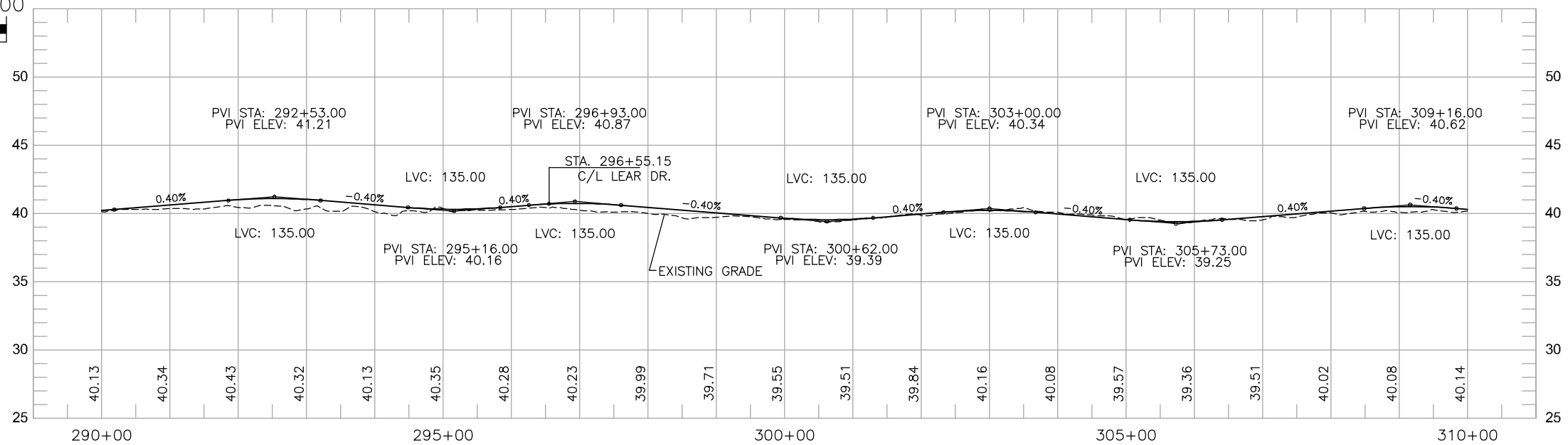
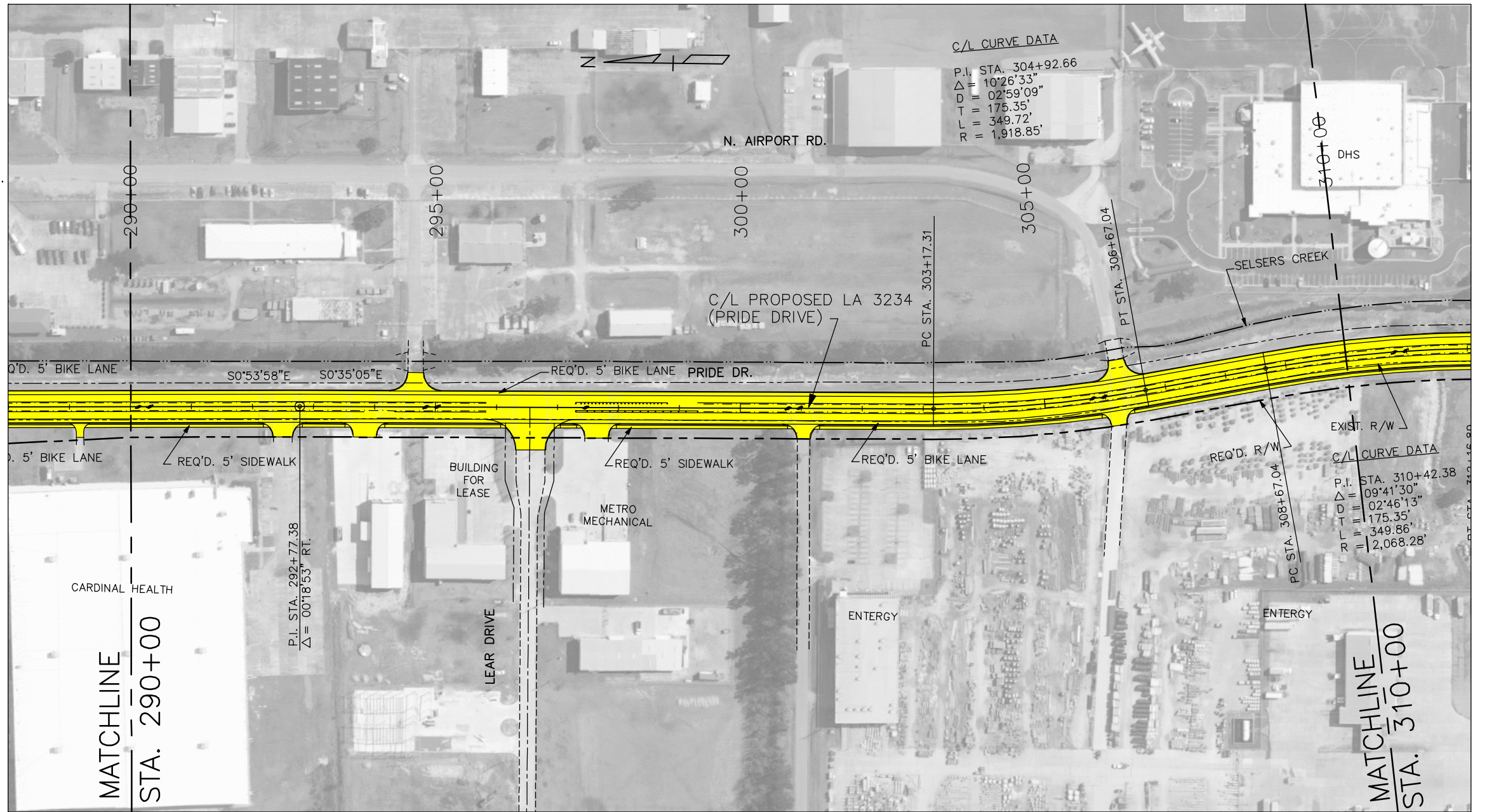


PLAN LAYOUT - ALTERNATE A
LA3234 EXT. (LA1065-AIRPORT)



LEGEND

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- PROPOSED ROADWAY, S.W. OR SHLDR./BIKE PATH
- PROPOSED REQ'D. R/W
- APPARENT EXIST. R/W
- MATCHLINE
- EXISTING SIGNALIZED INTERSECTION



SHEET NUMBER	ALT. A-8	TANGI PAHOA	H008915	H.008915.2
DESIGNED	JES	PARISH	CONTROL SECTIONS	STATE PROJECT
CHECKED	DGV	JES	DGV	8 OF 9
REVISION OR CHANGE ORDER DESCRIPTION	NO.	DATE	BY	

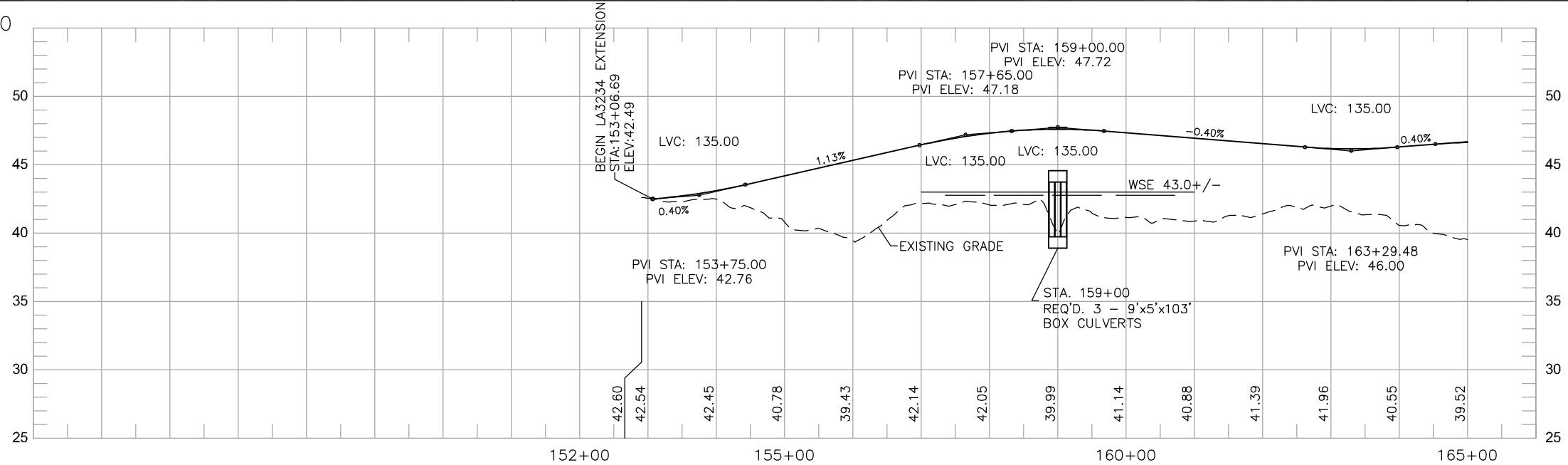
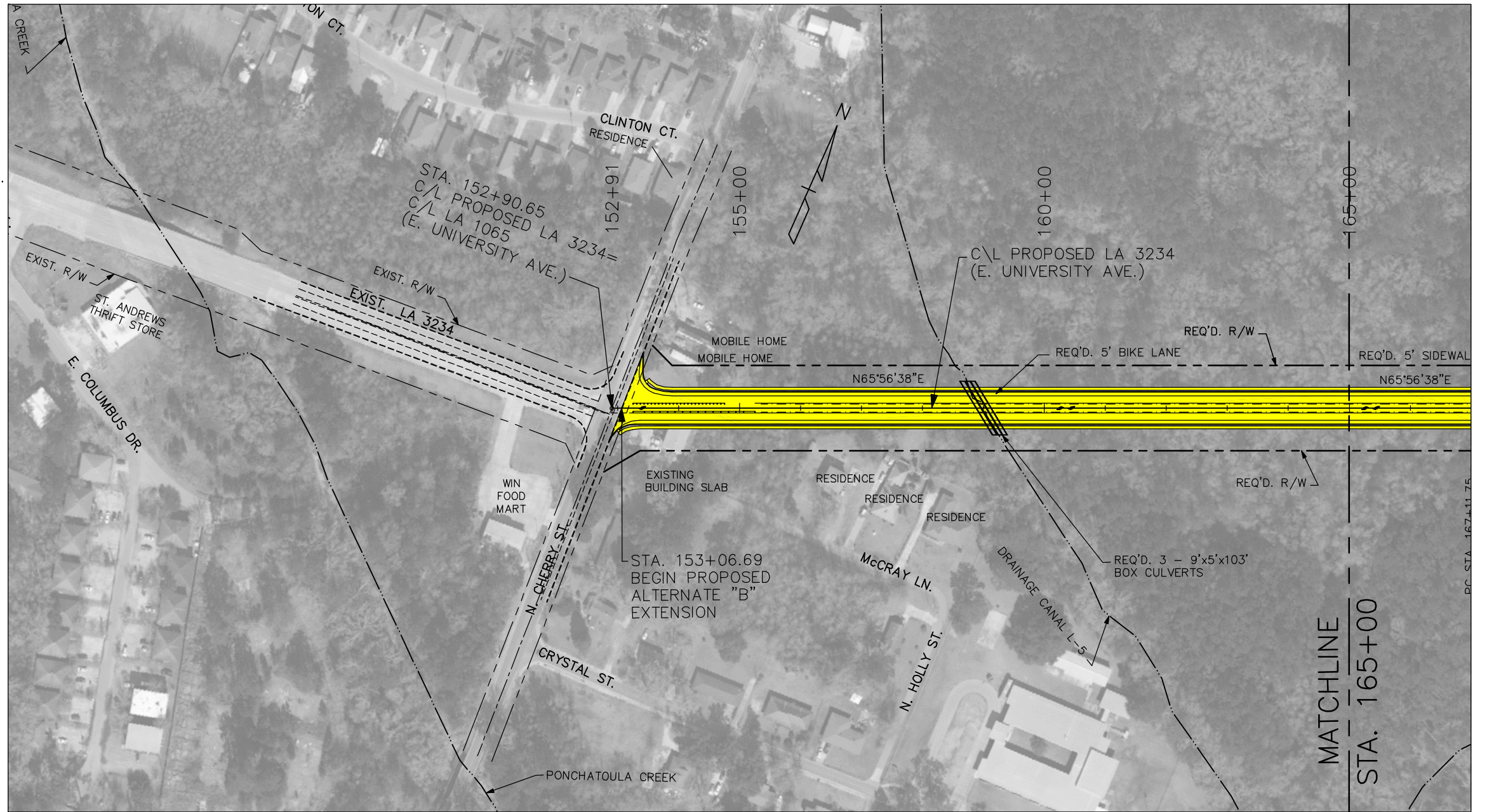
PLAN LAYOUT - ALTERNATE A

LA3234 EXT. (LA1065-AIRPORT)

WY ASSOCIATES, INC.

LEGEND

- PGL PROFILE GRADE LINE
- C/L PROPOSED ROADWAY
- PROPOSED BRIDGE STRUCTURE
- PROPOSED ROADWAY, S.W. OR SHLDR./BIKE PATH
- PROPOSED REQ'D. R/W
- APPARENT EXIST. R/W
- MATCHLINE
- EXIST. R.R. SPUR
- PROPOSED R.R. CROSSING
- EXISTING SIGNALIZED INTERSECTION



SHEET NUMBER	ALT. B-1
DESIGNED	JES
CHECKED	DGV
DATE	
REVISION OR CHANGE ORDER	
NO.	
DATE	
BY	



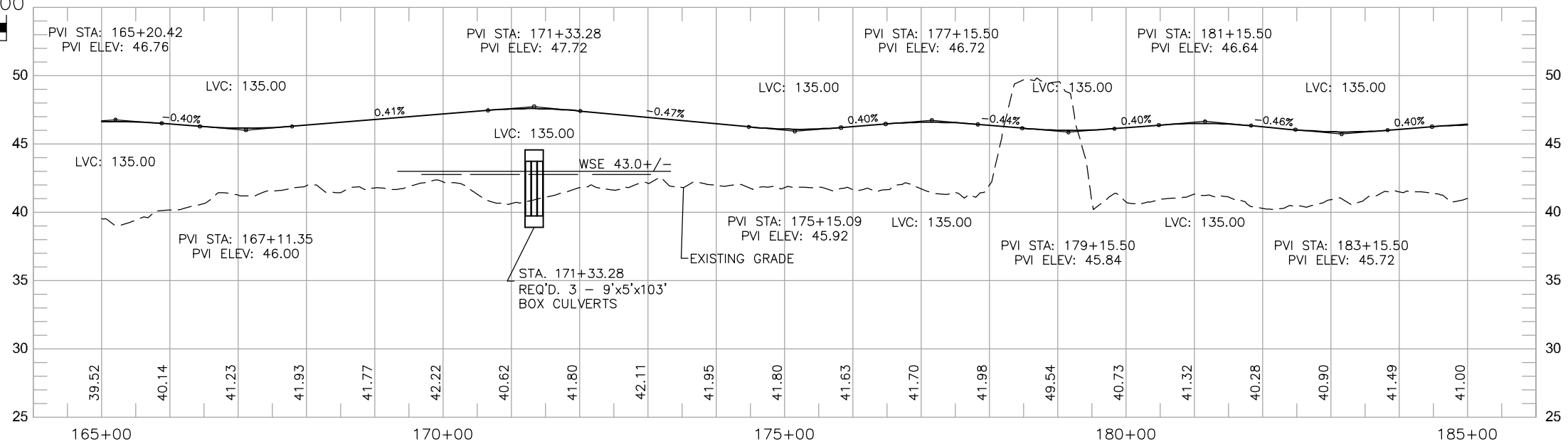
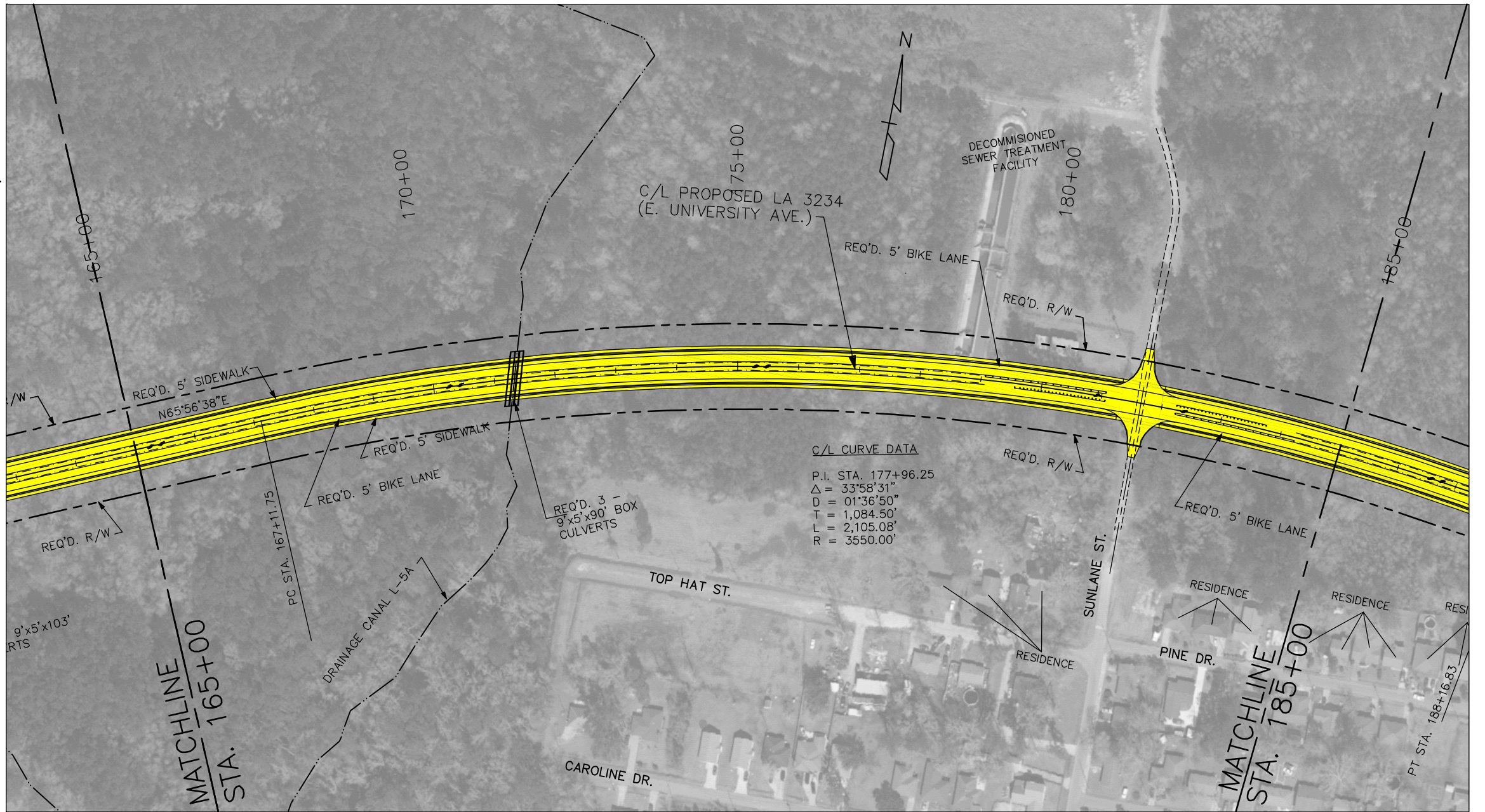
PLAN LAYOUT - ALTERNATE B
 LA3234 EXT. (LA1065-AIRPORT)



WY ASSOCIATES, INC.

LEGEND

- PGL PROFILE GRADE LINE
- C/L PROPOSED ROADWAY
- PROPOSED BRIDGE STRUCTURE
- PROPOSED ROADWAY, S.W. OR SHLDR./BIKE PATH
- PROPOSED REQ'D. R/W
- APPARENT EXIST. R/W
- MATCHLINE
- EXIST. R.R. SPUR
- PROPOSED R.R. CROSSING
- EXISTING SIGNALIZED INTERSECTION



SHEET NUMBER	TANGI PAHOA	PARISH	JES DGV	DESIGNED	NO.	DATE	BY
ALT. B-2	H008915	CONTROL SECTIONS	DGV JES	CHECKED	REVISION OR CHANGE ORDER DESCRIPTION		
	H.008915.2	STATE PROJECT	2 OF 9	Detailed			

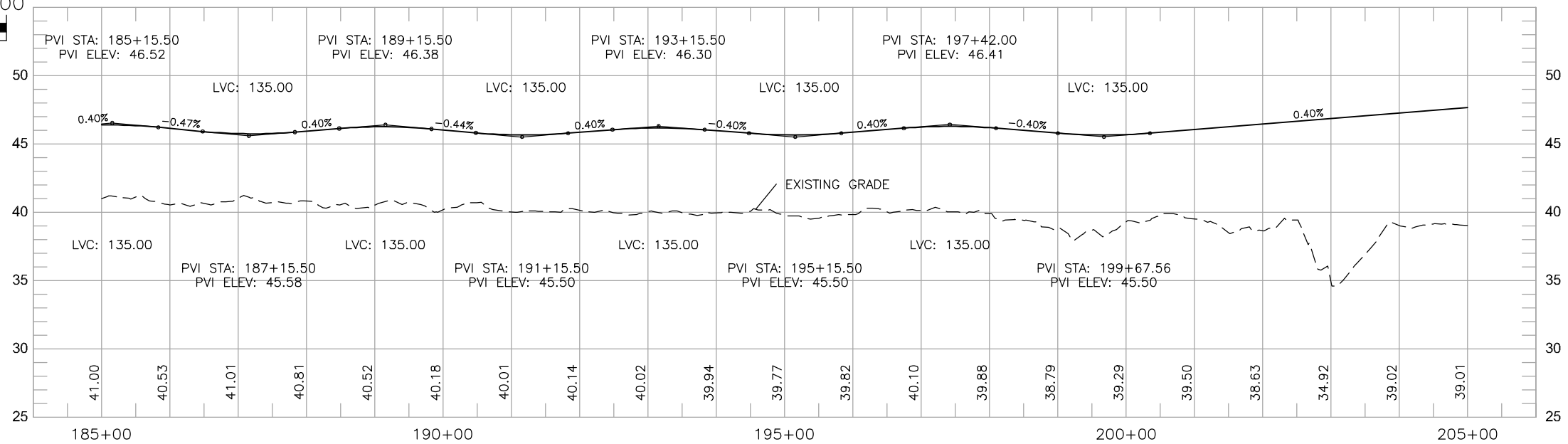
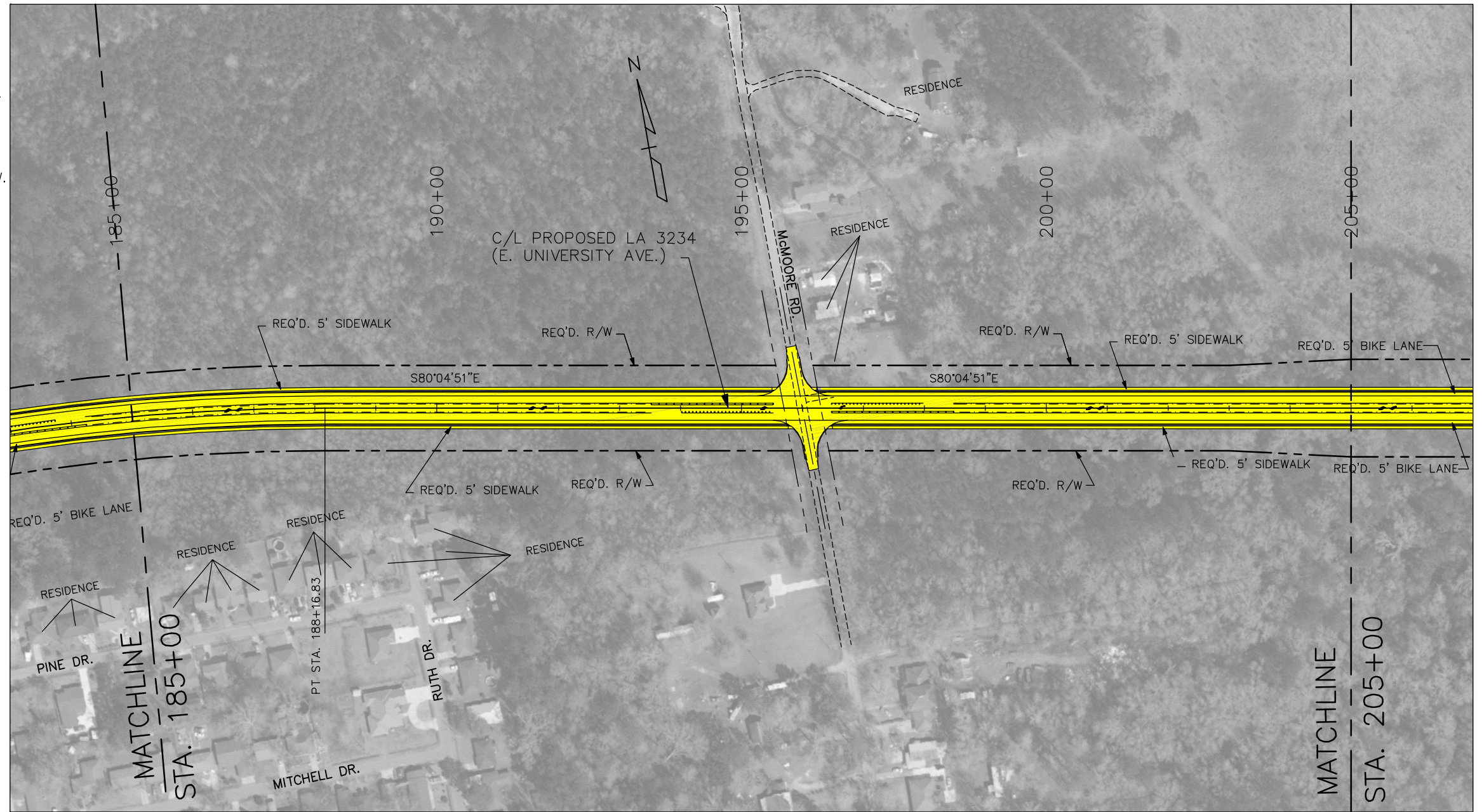
PLAN LAYOUT - ALTERNATE B

LA3234 EXT. (LA1065-AIRPORT)

WY ASSOCIATES, INC.

LEGEND

- PGL PROFILE GRADE LINE
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- PROPOSED BRIDGE STRUCTURE
- PROPOSED ROADWAY, S.W. OR SHLDR./BIKE PATH
- PROPOSED REQ'D. R/W
- APPARENT EXIST. R/W
- MATCHLINE
- EXIST. R.R. SPUR
- PROPOSED R.R. CROSSING
- EXISTING SIGNALIZED INTERSECTION



SHEET NUMBER	ALT. B-3	TANGIPAHOA	H008915	H.008915.2
DESIGNED	JES	PARISH	CONTROL SECTIONS	STATE PROJECT
CHECKED	DGV	JES	DGV	3 OF 9
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				REVISION OR CHANGE ORDER DESCRIPTION

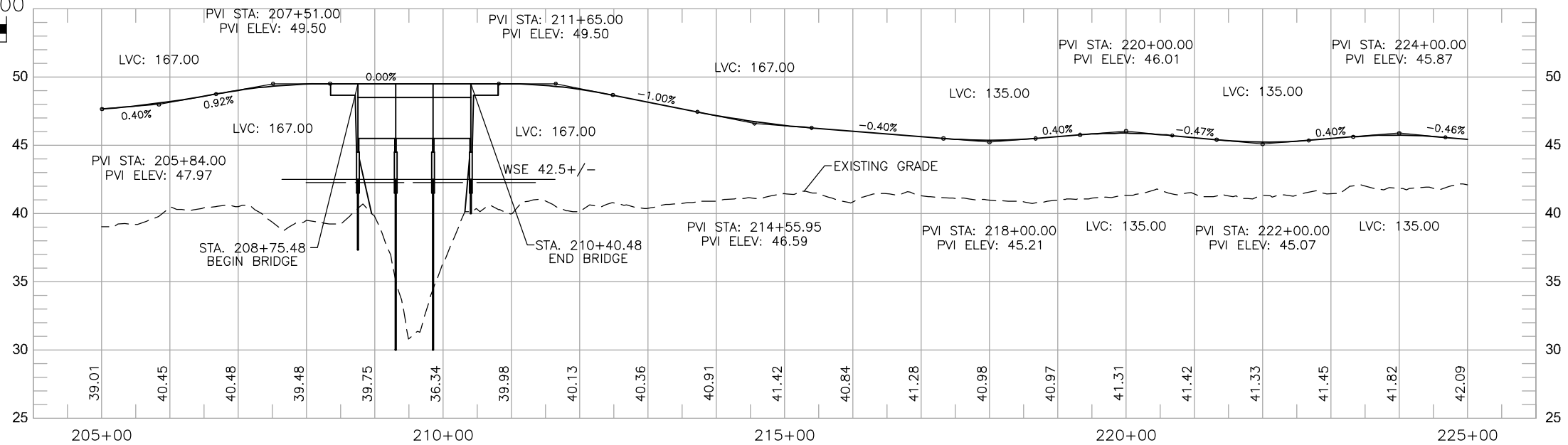
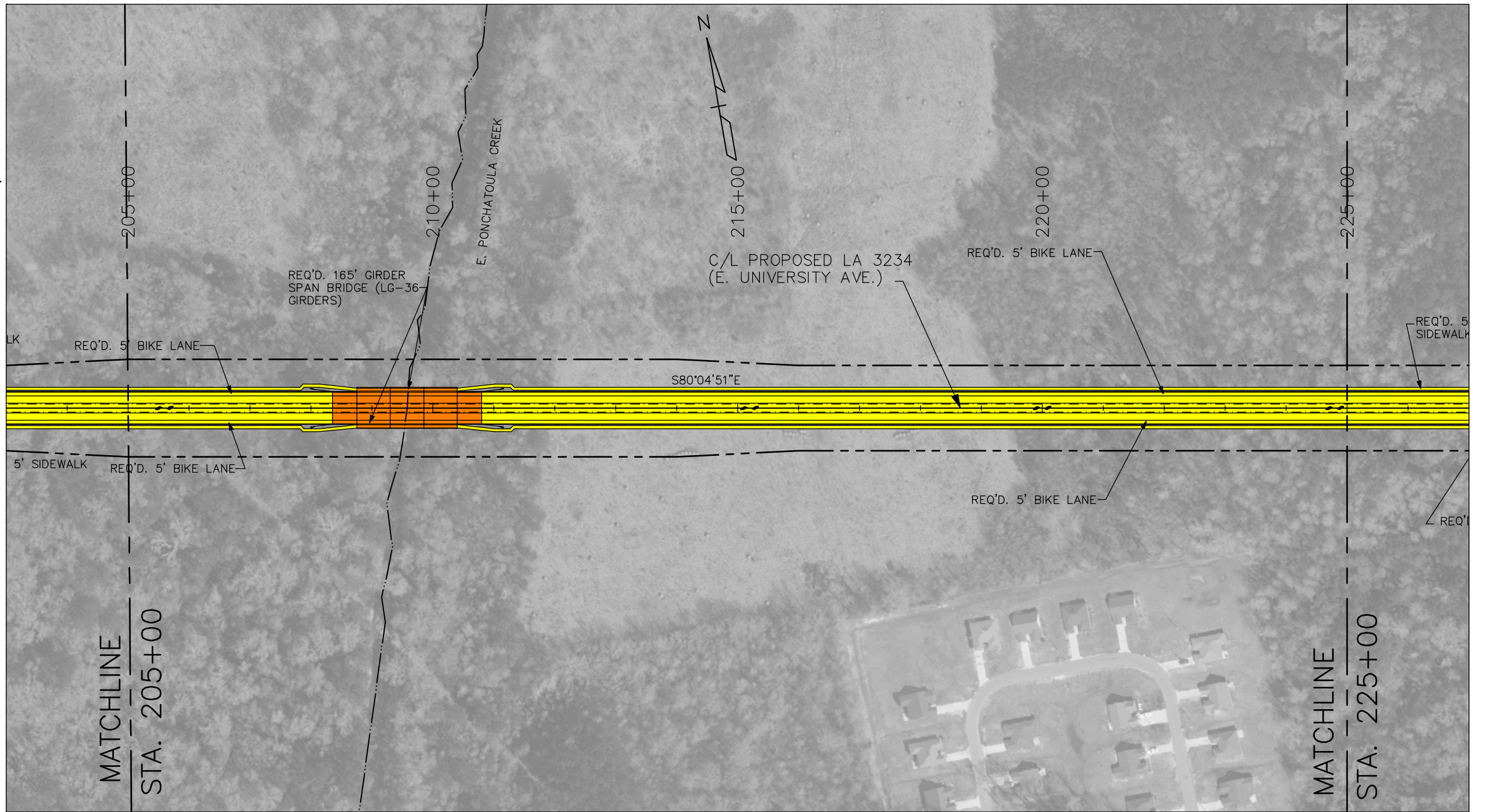
PLAN LAYOUT - ALTERNATE B

LA3234 EXT. (LA1065-AIRPORT)

HY ASSOCIATES, INC.

LEGEND

- PGL PROFILE GRADE LINE
- C/L PROPOSED ROADWAY
- PROPOSED BRIDGE STRUCTURE
- PROPOSED ROADWAY, S.W. OR SHLDR./BIKE PATH
- PROPOSED REQ'D. R/W
- APPARENT EXIST. R/W
- MATCHLINE
- EXIST. R.R. SPUR
- PROPOSED R.R. CROSSING
- EXISTING SIGNALIZED INTERSECTION



SHEET NUMBER	ALT. B-4
TANGIPAHOA PARISH	CONTROL SECTIONS
H008915	STATE PROJECT
H.008915.2	
JES DGV	DGV JES
DESIGNED	Detailed
CHECKED	CHECKED
SERIES NUMBER	4 OF 9
BY	
DATE	
REVISION OR CHANGE ORDER DESCRIPTION	

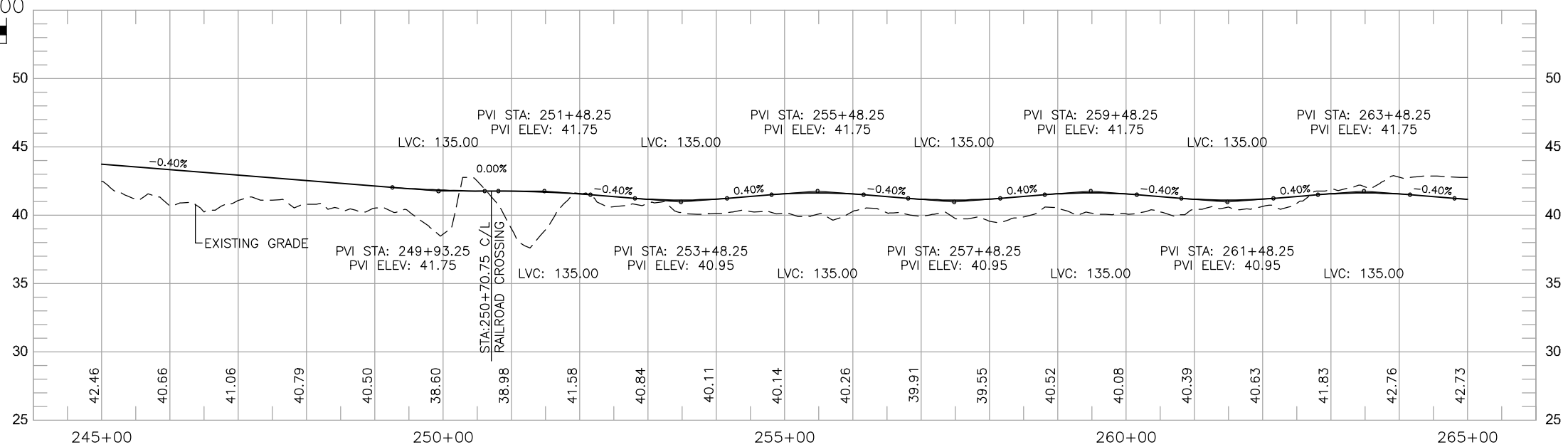
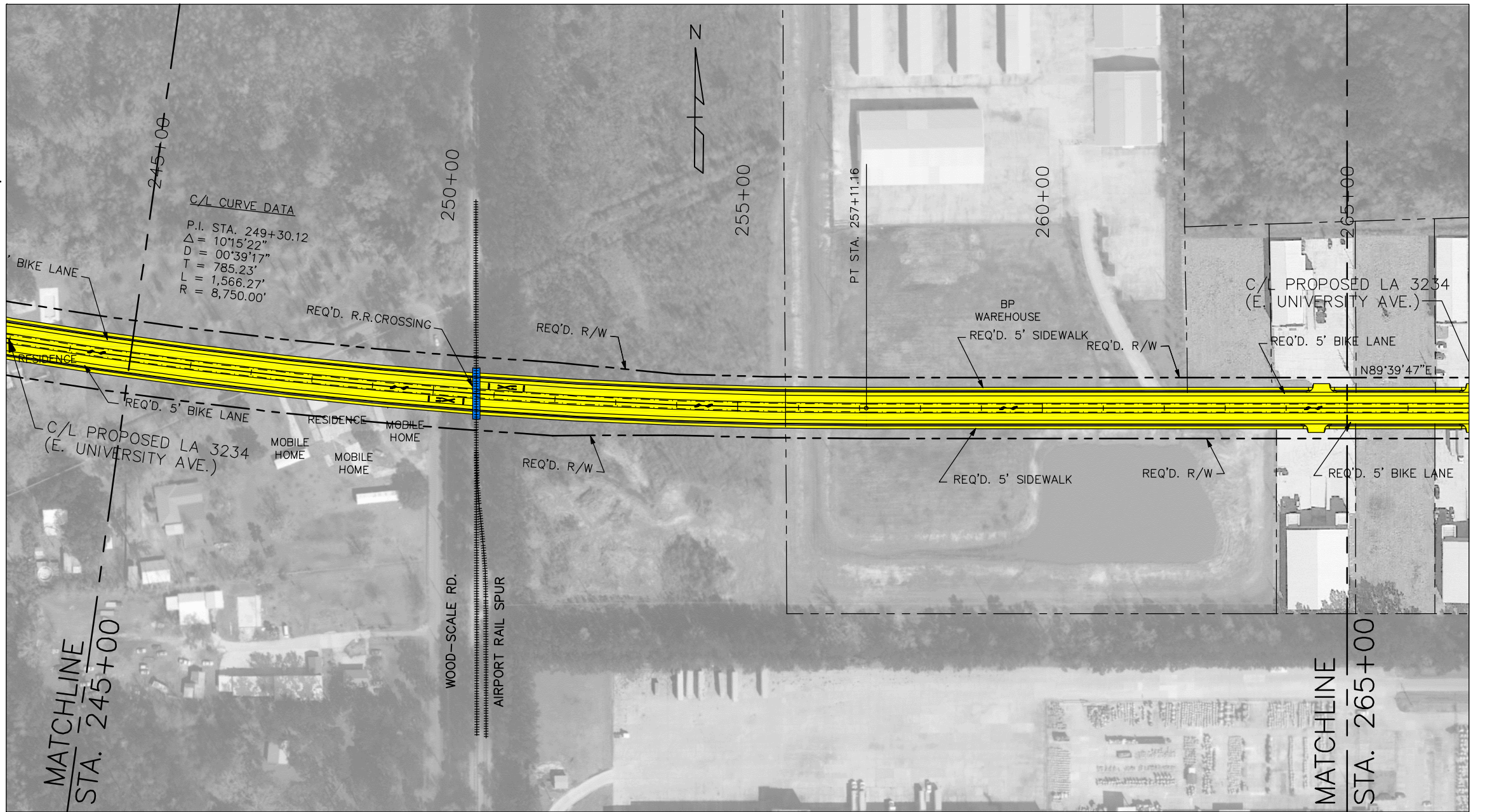


PLAN LAYOUT - ALTERNATE B
LA3234 EXT. (LA1065-AIRPORT)



LEGEND

- PGL PROFILE GRADE LINE
- C/L PROPOSED ROADWAY
- PROPOSED BRIDGE STRUCTURE
- PROPOSED ROADWAY, S.W. OR SHLDR./BIKE PATH
- PROPOSED REQ'D. R/W
- APPARENT EXIST. R/W
- MATCHLINE
- EXIST. R.R. SPUR
- PROPOSED R.R. CROSSING
- EXISTING SIGNALIZED INTERSECTION



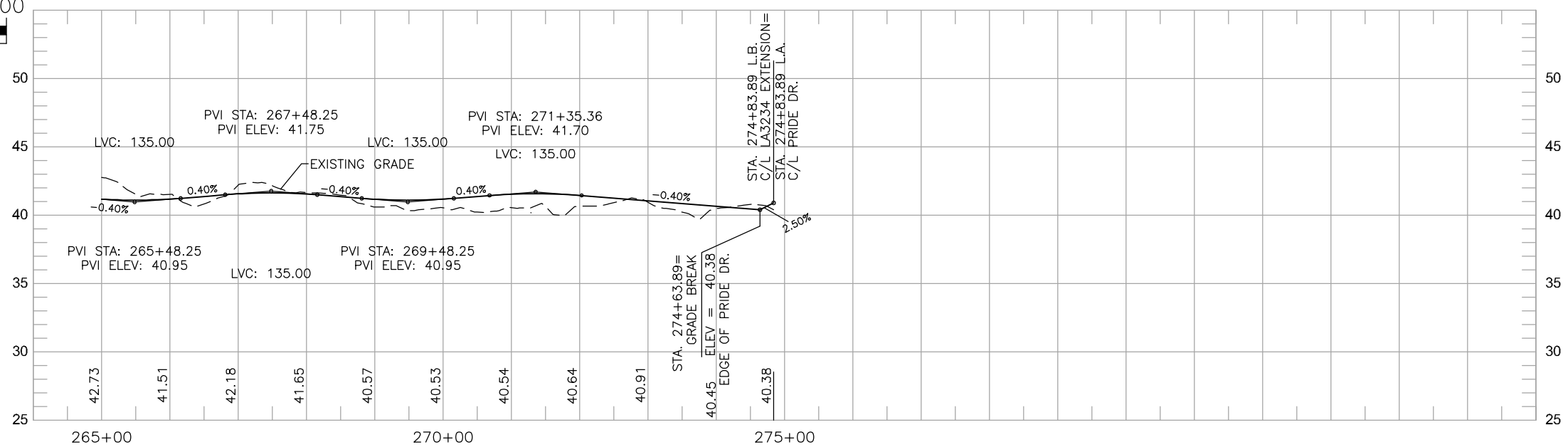
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DESIGNED	JES	PARISH	CONTROL SECTIONS	STATE PROJECT
CHECKED	DGV	JES	DGV	6 OF 9
REVISION OR CHANGE ORDER DESCRIPTION	DATE	NO.	BY	

PLAN LAYOUT - ALTERNATE B
 LA3234 EXT. (LA1065-AIRPORT)

DOTD
HY ASSOCIATES, INC.

LEGEND

- PGL PROFILE GRADE LINE
- C/L PROPOSED ROADWAY
- PROPOSED BRIDGE STRUCTURE
- PROPOSED ROADWAY, S.W. OR SHLDR./BIKE PATH
- PROPOSED REQ'D. R/W
- APPARENT EXIST. R/W
- MATCHLINE
- EXIST. R.R. SPUR
- PROPOSED R.R. CROSSING
- EXISTING SIGNALIZED INTERSECTION



SHEET NUMBER	TANGIPAHOA	PARISH	JES DGV	DESIGNED	NO.	DATE	BY
ALT. B-7	H008915	CONTROL SECTIONS	DGV JES	CHECKED	REVISION OR CHANGE ORDER DESCRIPTION		
	H.008915.2	STATE PROJECT	7 OF 9	RETAILED			

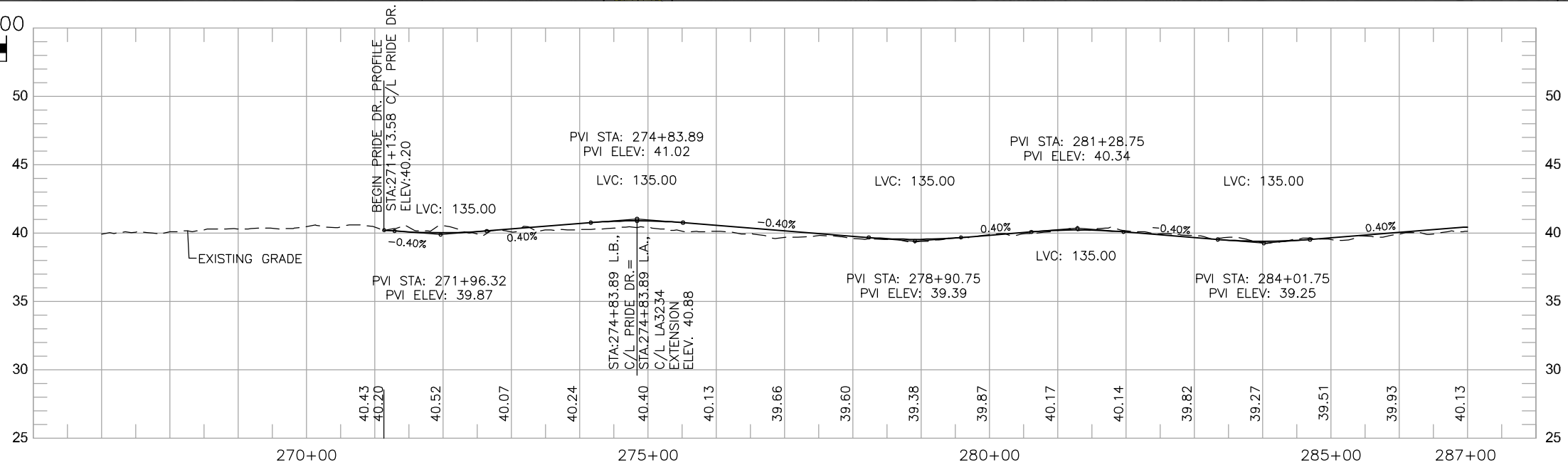
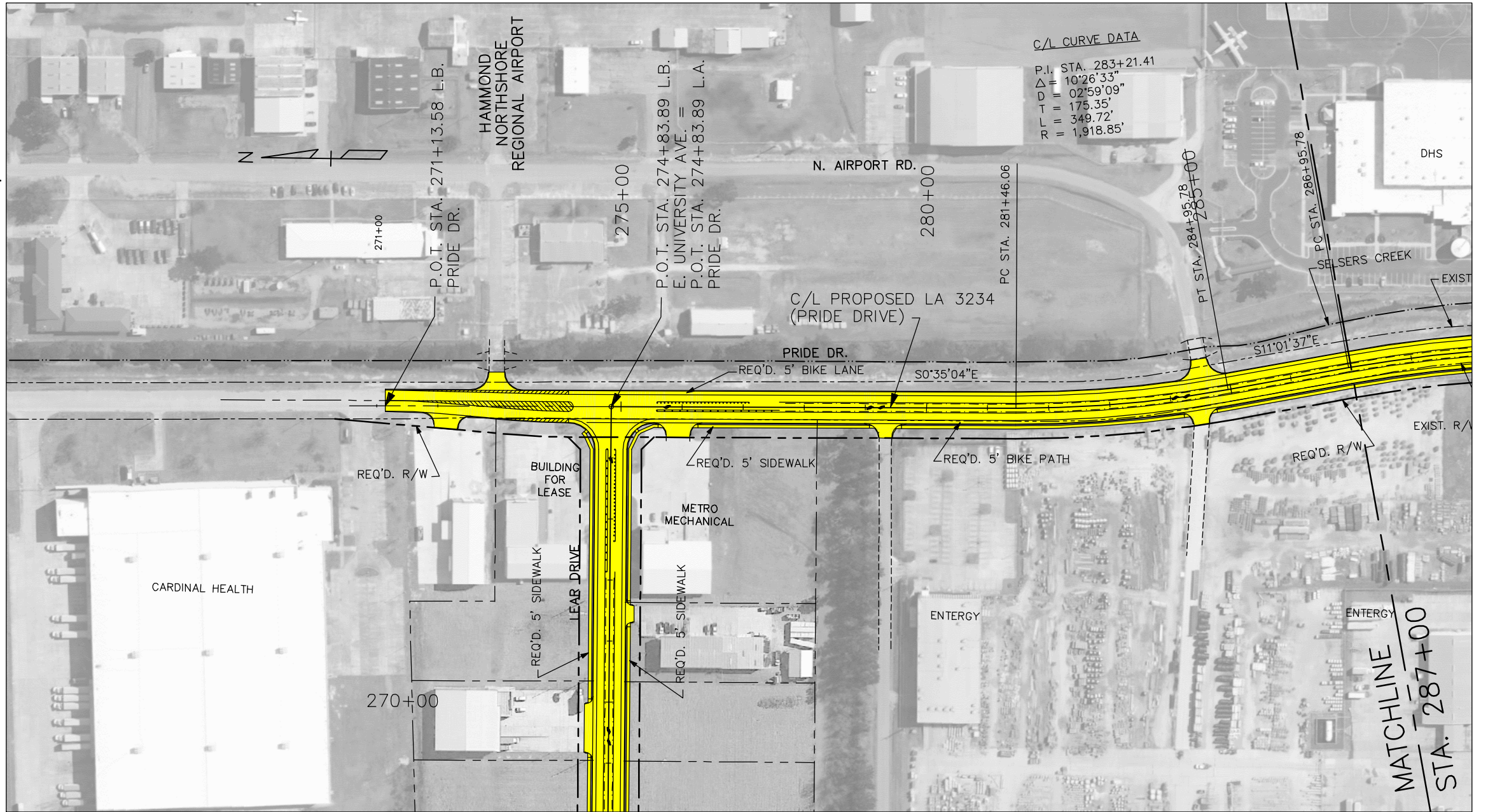
PLAN LAYOUT - ALTERNATE B



LA3234 EXT. (LA1065-AIRPORT)

WY ASSOCIATES, INC.

LEGEND

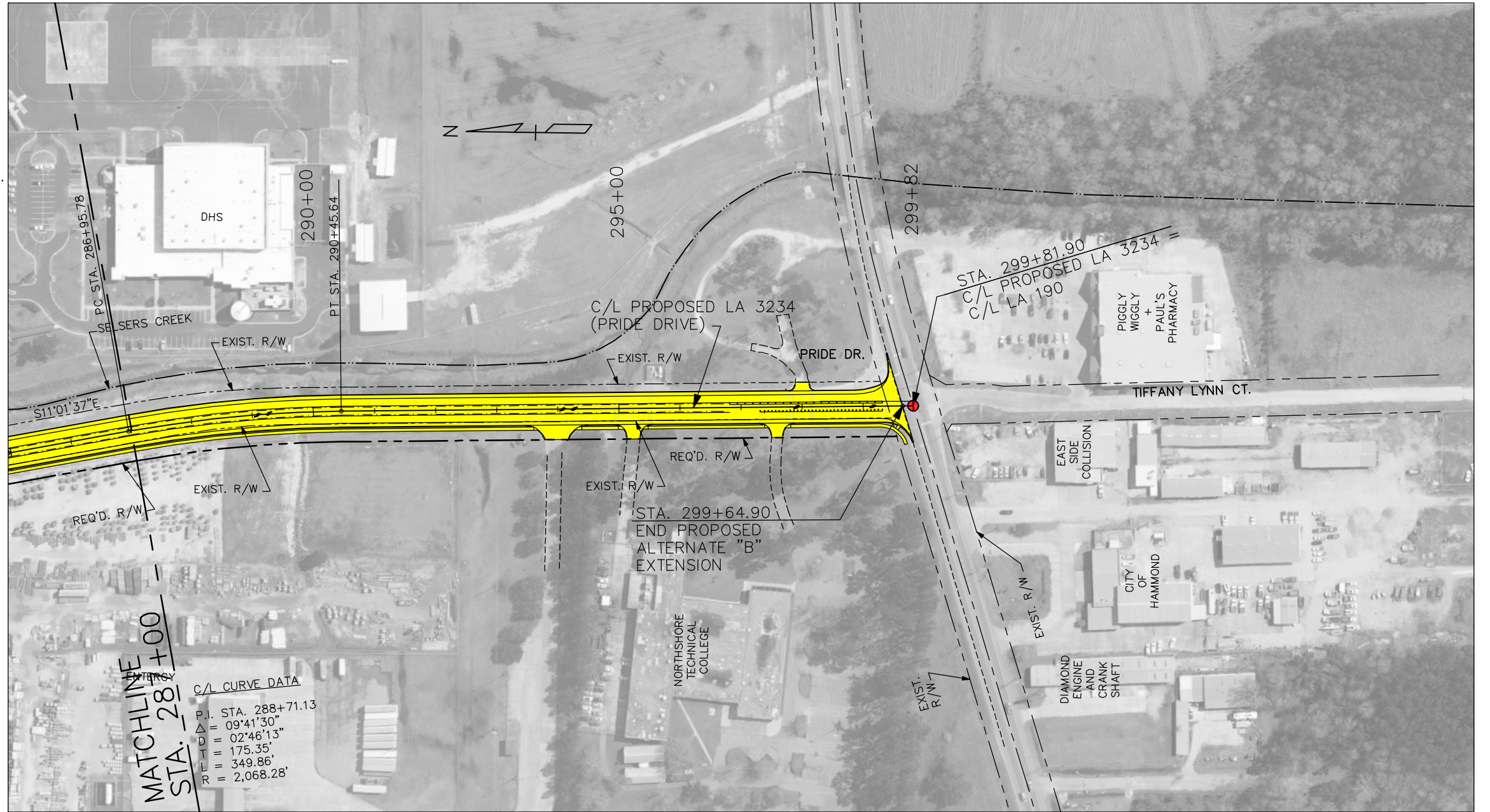
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- C/L PROPOSED ROADWAY
- PROPOSED BRIDGE STRUCTURE
- PROPOSED ROADWAY, S.W. OR SHLDR./BIKE PATH
- PROPOSED REQ'D. R/W
- APPARENT EXIST. R/W
- MATCHLINE
- EXIST. R.R. SPUR
- PROPOSED R.R. CROSSING
- EXISTING SIGNALIZED INTERSECTION



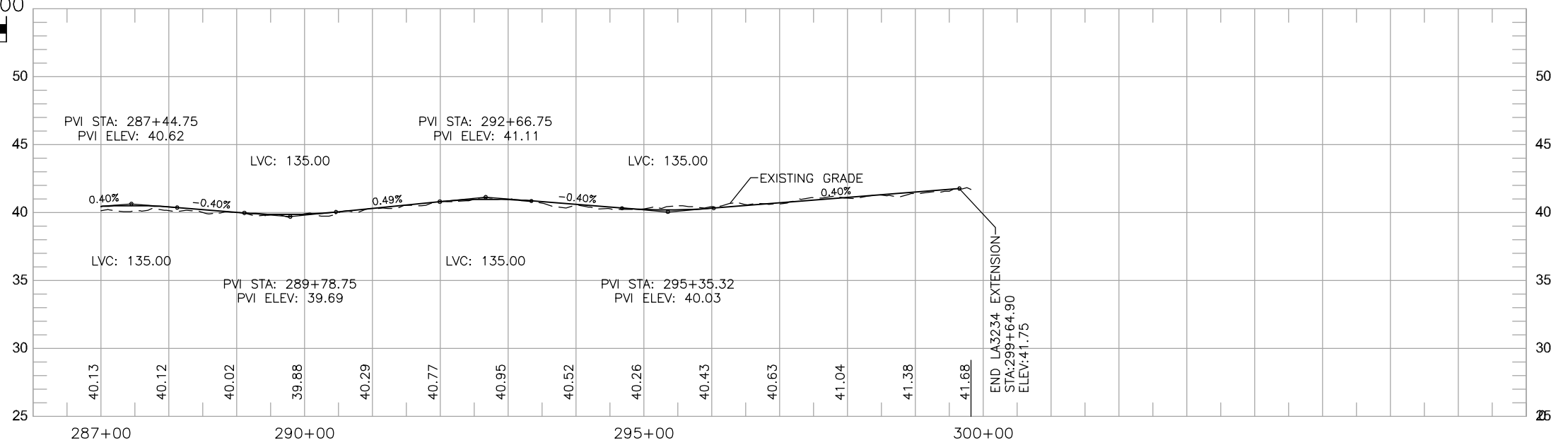
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DESIGNED	JES	DGV	JES	DGV	JES	8 OF 9
CHECKED		RETAILED		CHECKED		SERIES NUMBER
REVISION OR CHANGE ORDER DESCRIPTION						BY
NO.						DATE
						
PLAN LAYOUT - ALTERNATE B						
LA3234 EXT. (LA1065-AIRPORT)						
						

LEGEND

- PGL PROFILE GRADE LINE
- C/L PROPOSED ROADWAY
- PROPOSED BRIDGE STRUCTURE
- PROPOSED ROADWAY, S.W. OR SHLDR./BIKE PATH
- PROPOSED REQ'D. R/W
- APPARENT EXIST. R/W
- MATCHLINE
- EXIST. R.R. SPUR
- PROPOSED R.R. CROSSING
- EXISTING SIGNALIZED INTERSECTION



C/L CURVE DATA
 P.I. STA. 288+71.13
 $\Delta = 09^{\circ}41'30''$
 $PT = 02^{\circ}46'13''$
 $PT = 175.35'$
 $R = 349.86'$
 $R = 2,068.28'$



SHEET NUMBER	ALT. B-9	
DESIGNED	JES	
CHECKED	DOV	
RETAINED	JES	
CHECKED	JES	
SERIES NUMBER	9 OF 9	
PARISH	TANGIPAHOA	
CONTROL SECTIONS	H008915	
STATE PROJECT	H.008915.2	
NO.	DATE	BY
REVISION OR CHANGE ORDER DESCRIPTION		

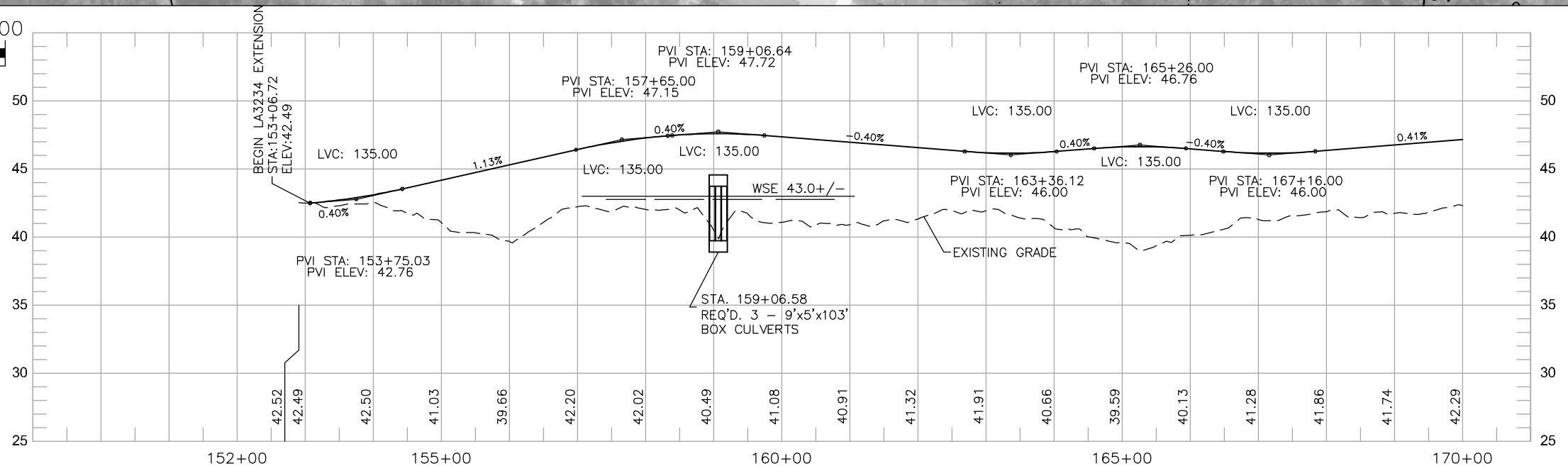
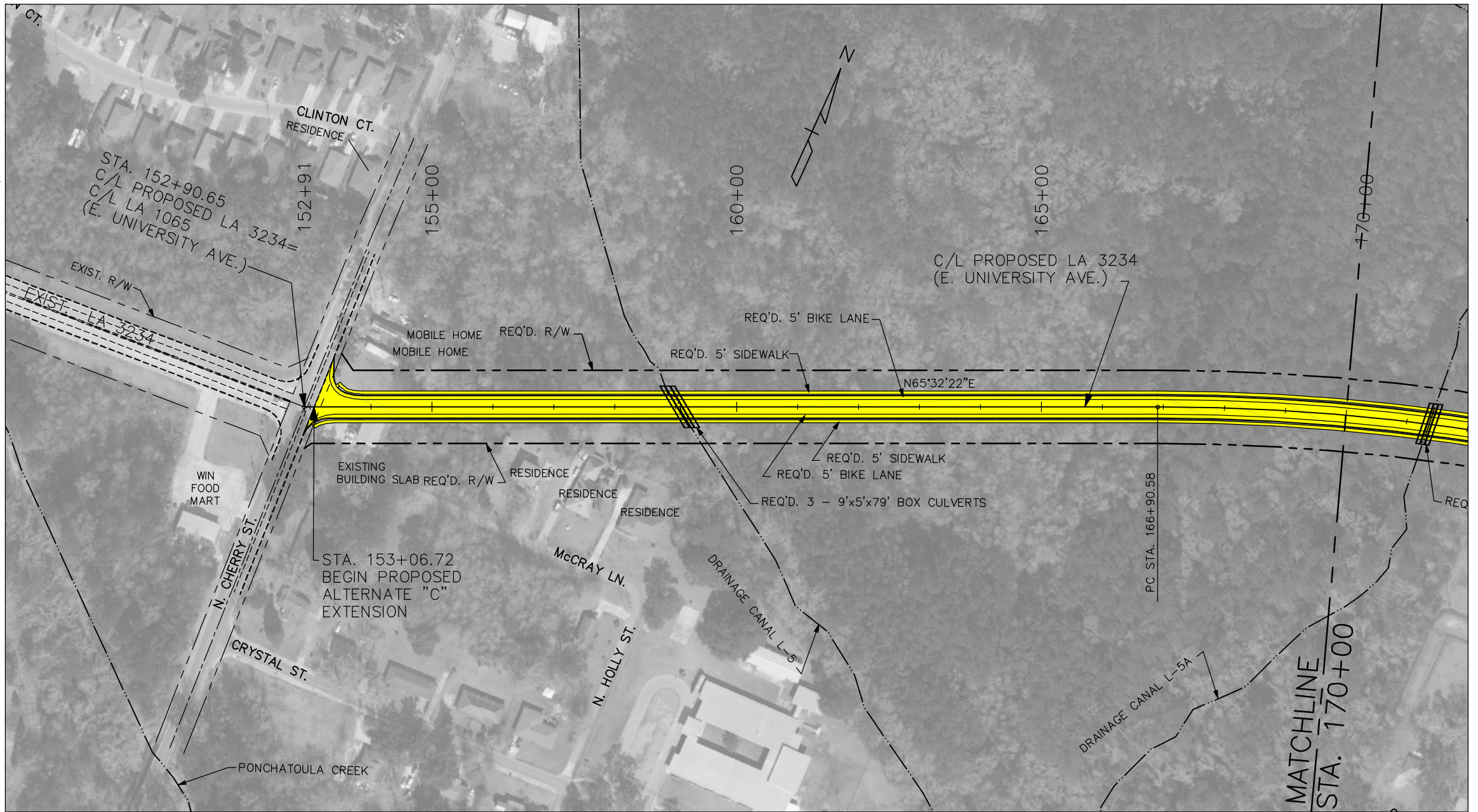


PLAN LAYOUT - ALTERNATE B
 LA3234 EXT. (LA1065-AIRPORT)



LEGEND

- PGL PROFILE GRADE LINE
- C/L PROPOSED ROADWAY
- PROPOSED BRIDGE STRUCTURE
- PROPOSED ROADWAY, S.W. OR SHLDR./BIKE PATH
- PROPOSED REQ'D. R/W
- APPARENT EXIST. R/W
- MATCHLINE
- EXIST. R.R. SPUR
- PROPOSED R.R. CROSSING
- EXISTING SIGNALIZED INTERSECTION



SHEET NUMBER	ALT. C-1
TANGI PAHOA	H008915
JES DGV	JES
DESIGNED	CHECKED
1 OF 6	REVISION NUMBER

PARISH	CONTROL SECTIONS	STATE PROJECT
JES DGV	JES	H-008915.2
NO.	DATE	BY

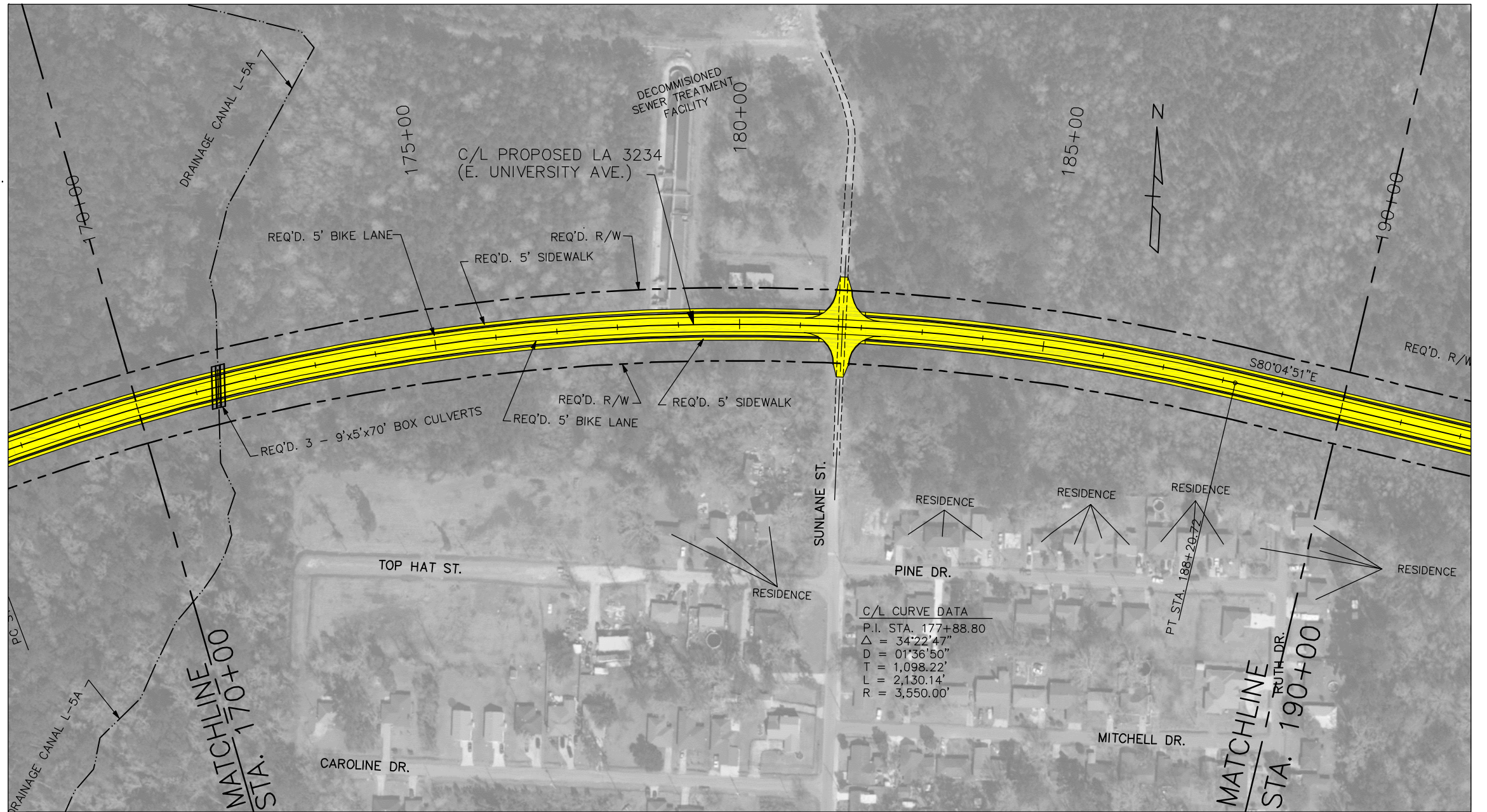


PLAN LAYOUT - ALTERNATE C
LA3234 EXT. (LA1065-AIRPORT)

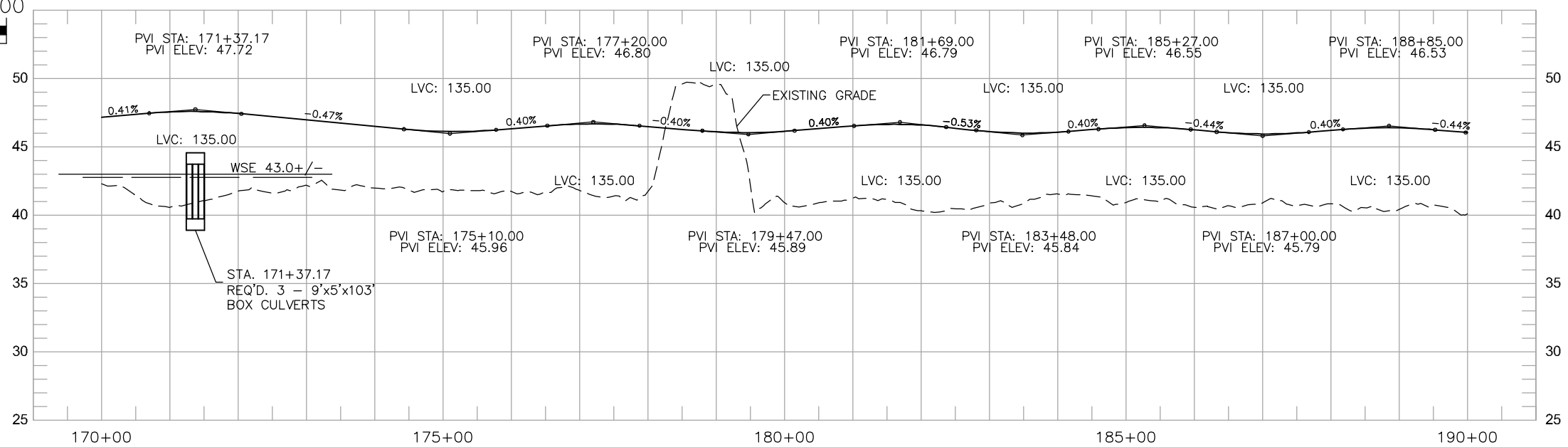


LEGEND

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- C/L PROPOSED ROADWAY
- PROPOSED BRIDGE STRUCTURE
- PROPOSED ROADWAY, S.W. OR SHLDR./BIKE PATH
- PROPOSED REQ'D. R/W
- APPARENT EXIST. R/W
- MATCHLINE
- EXIST. R.R. SPUR
- PROPOSED R.R. CROSSING
- EXISTING SIGNALIZED INTERSECTION



C/L CURVE DATA
 P.I. STA. 177+88.80
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 $D = 01^{\circ}36'50''$
 $T = 1,098.22'$
 $L = 2,130.14'$
 $R = 3,550.00'$



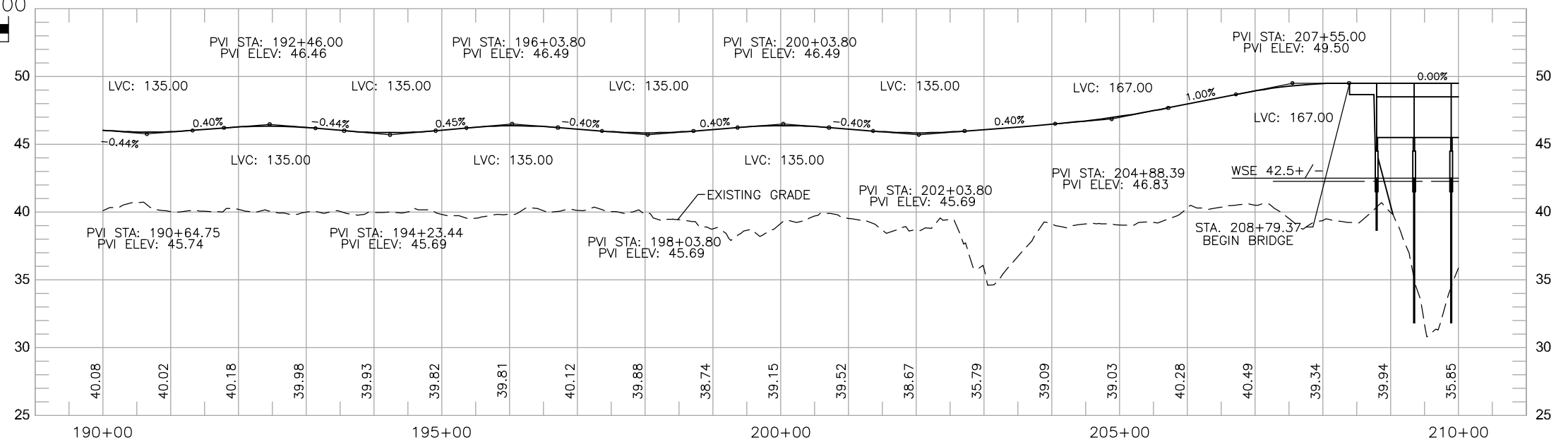
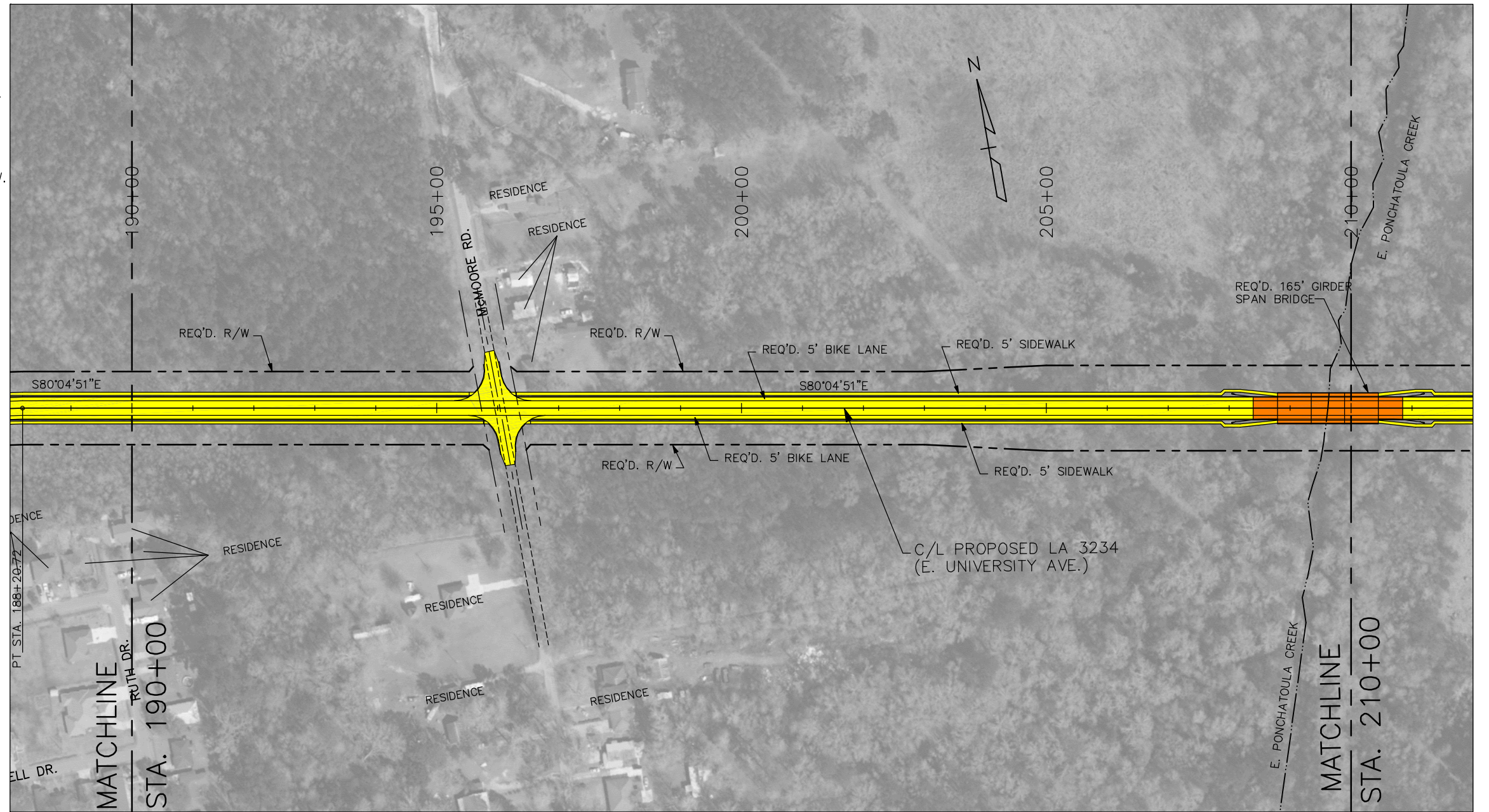
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PARISH	CONTROL SECTIONS	STATE PROJECT		
JES DGV	DGV JES	SERIES NUMBER	2 OF 6	
CHECKED	RETAILED	CHECKED		
REVISION OR CHANGE ORDER DESCRIPTION			NO.	DATE
			BY	

PLAN LAYOUT - ALTERNATE C
 LA3234 EXT. (LA1065-AIRPORT)

DOTD
HY ASSOCIATES, INC.

LEGEND

- PGL PROFILE GRADE LINE
- C/L PROPOSED ROADWAY
- PROPOSED BRIDGE STRUCTURE
- PROPOSED ROADWAY, S.W. OR SHLDR./BIKE PATH
- PROPOSED REQ'D. R/W
- APPARENT EXIST. R/W
- MATCHLINE
- EXIST. R.R. SPUR
- PROPOSED R.R. CROSSING
- EXISTING SIGNALIZED INTERSECTION



SHEET NUMBER	ALT. C-3	
DESIGNED	JES	
CHECKED	DOG	
RETAINED	JES	
CHECKED	JES	
DESIGNED	TANGIPAHOA	
CHECKED	H008915	
RETAINED	H.008915.2	
CHECKED	3 OF 6	
NO.	DATE	BY
REVISION OR CHANGE ORDER DESCRIPTION		

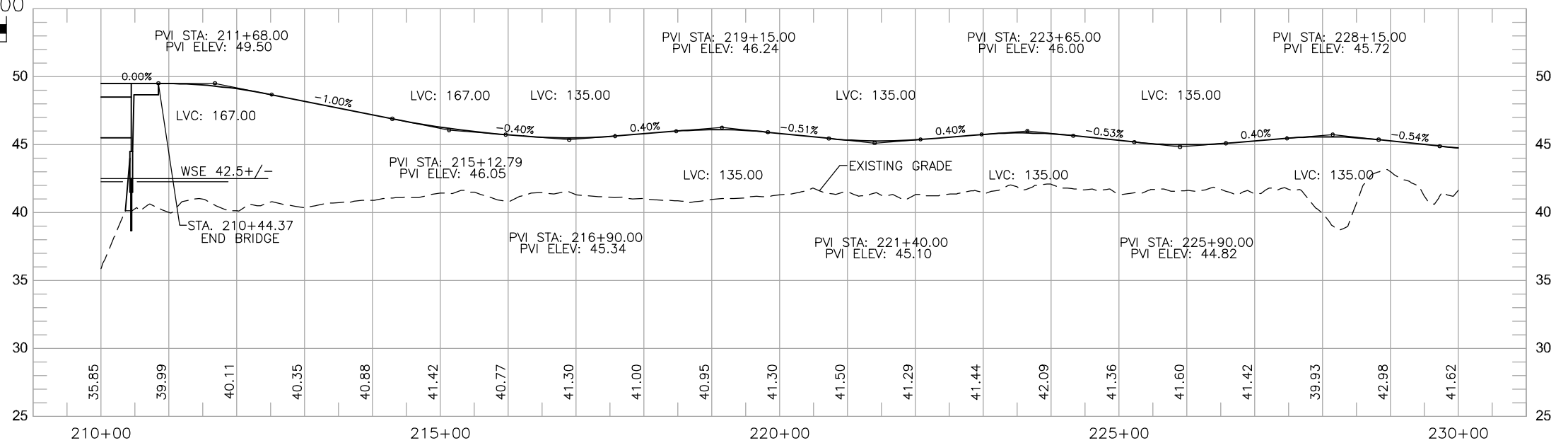
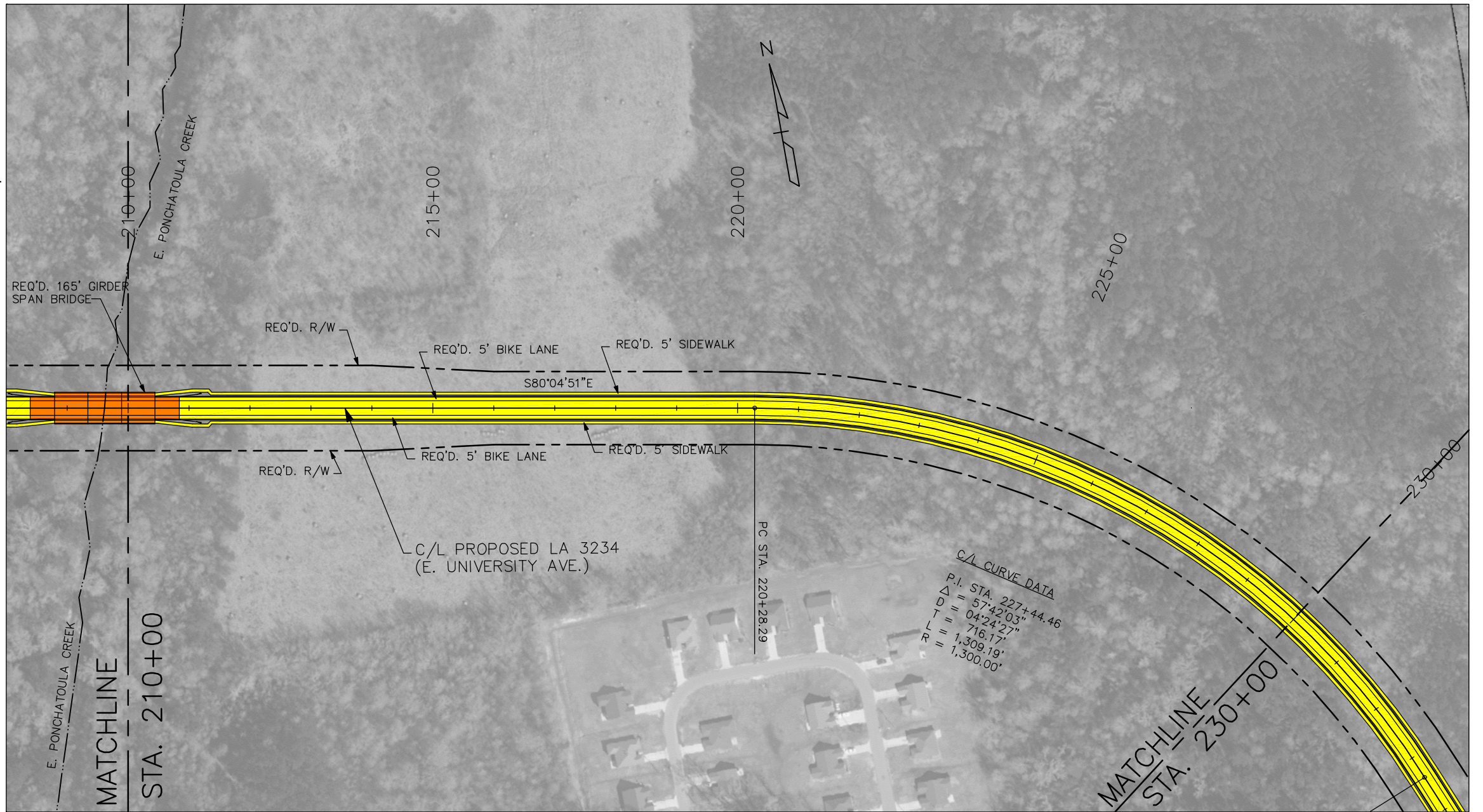


PLAN LAYOUT - ALTERNATE C
 LA3234 EXT. (LA1065-AIRPORT)



LEGEND

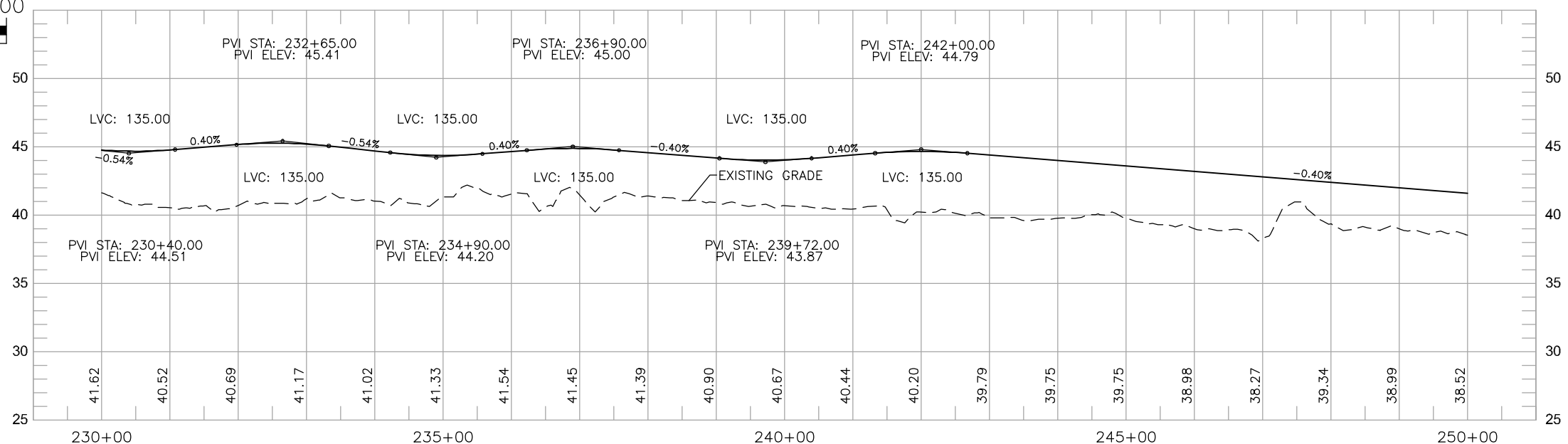
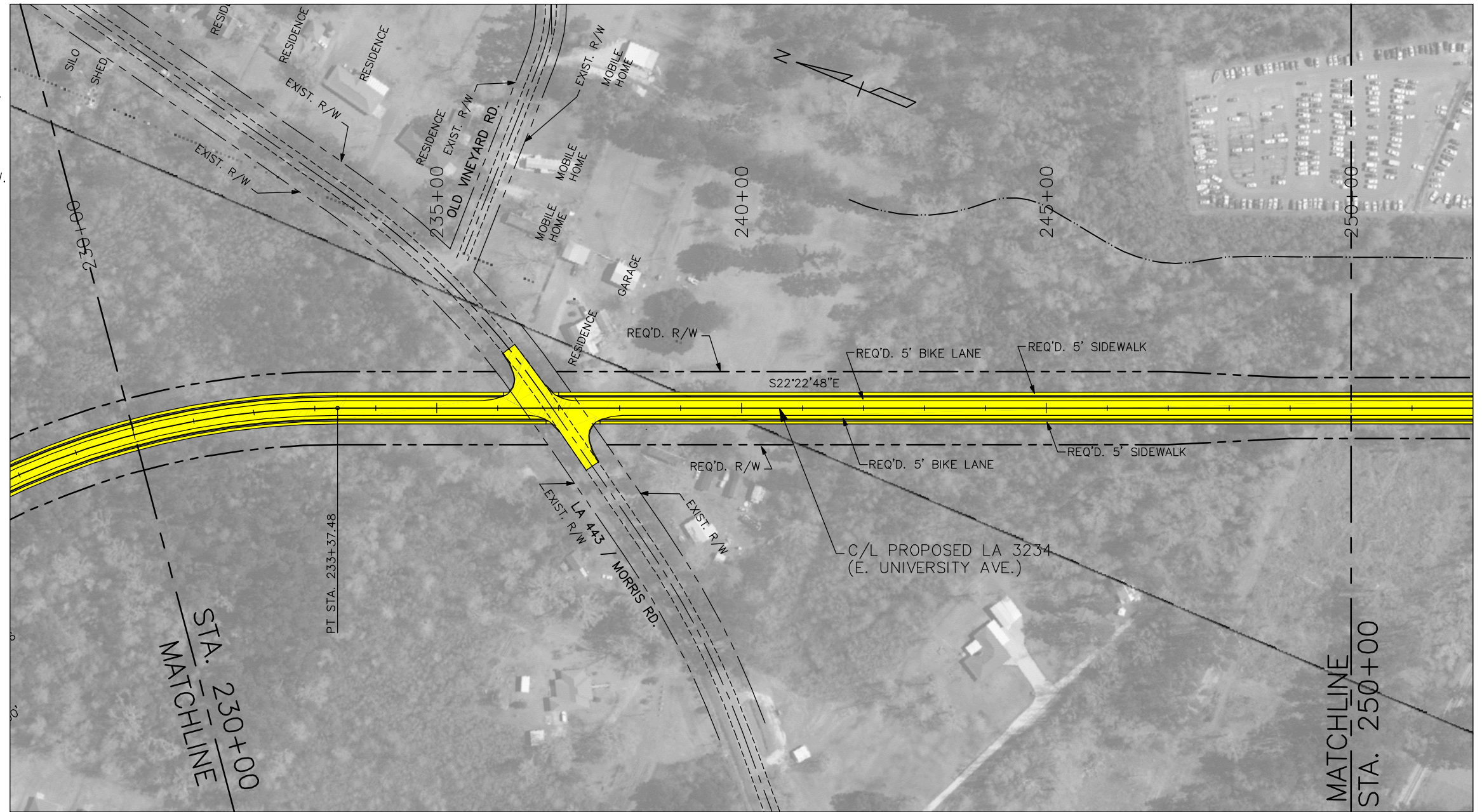
- PGL PROFILE GRADE LINE
- C/L PROPOSED ROADWAY
- PROPOSED BRIDGE STRUCTURE
- PROPOSED ROADWAY, S.W. OR SHLDR./BIKE PATH
- PROPOSED REQ'D. R/W
- APPARENT EXIST. R/W
- MATCHLINE
- EXIST. R.R. SPUR
- PROPOSED R.R. CROSSING
- EXISTING SIGNALIZED INTERSECTION



SHEET NUMBER	ALT. C-4	TANGIPAHOA	H008915	H.008915.2
DESIGNED	JES	PARISH	CONTROL SECTIONS	STATE PROJECT
CHECKED	DGV	JES	DGV	4 OF 6
REVISION OR CHANGE ORDER DESCRIPTION	NO.	DATE	BY	
PLAN LAYOUT - ALTERNATE C				
LA3234 EXT. (LA1065-AIRPORT)				
DOTD HY ASSOCIATES, INC.				

LEGEND

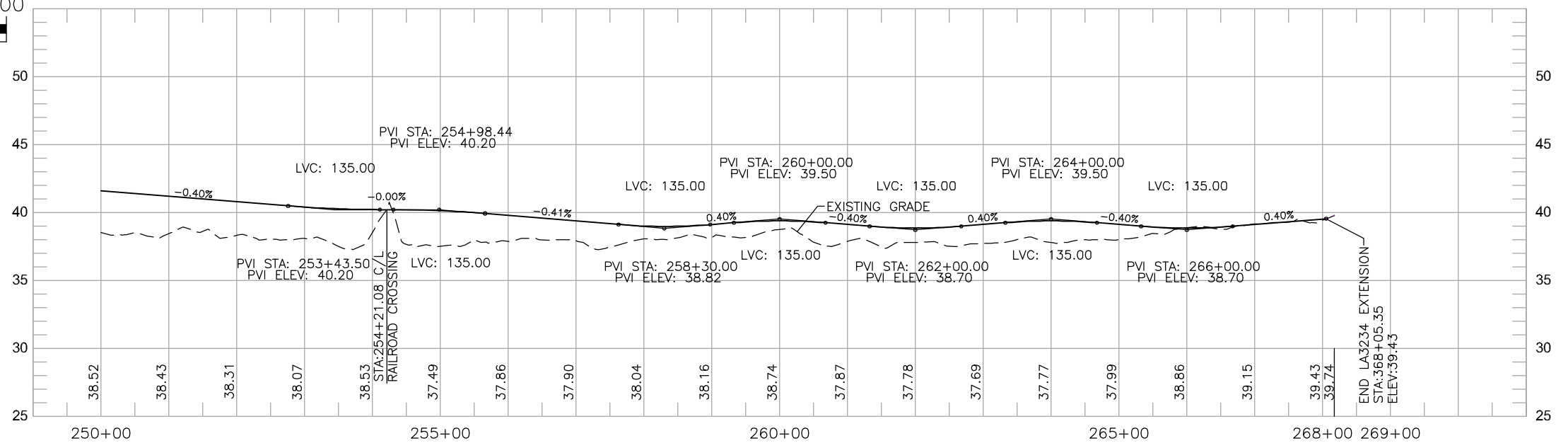
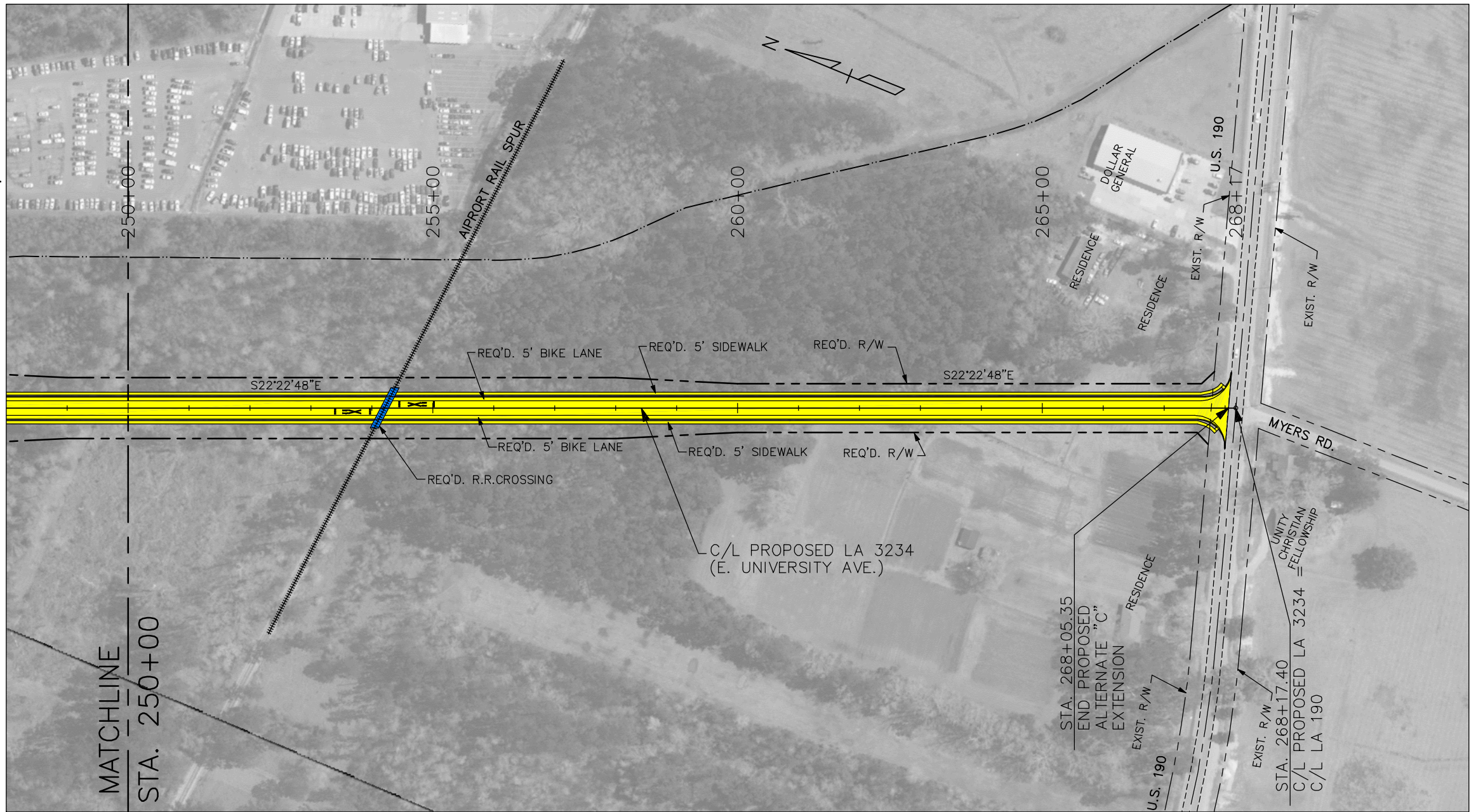
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- C/L PROPOSED ROADWAY
- PROPOSED BRIDGE STRUCTURE
- PROPOSED ROADWAY, S.W. OR SHLDR./BIKE PATH
- PROPOSED REQ'D. R/W
- APPARENT EXIST. R/W
- MATCHLINE
- EXIST. R.R. SPUR
- PROPOSED R.R. CROSSING
- EXISTING SIGNALIZED INTERSECTION



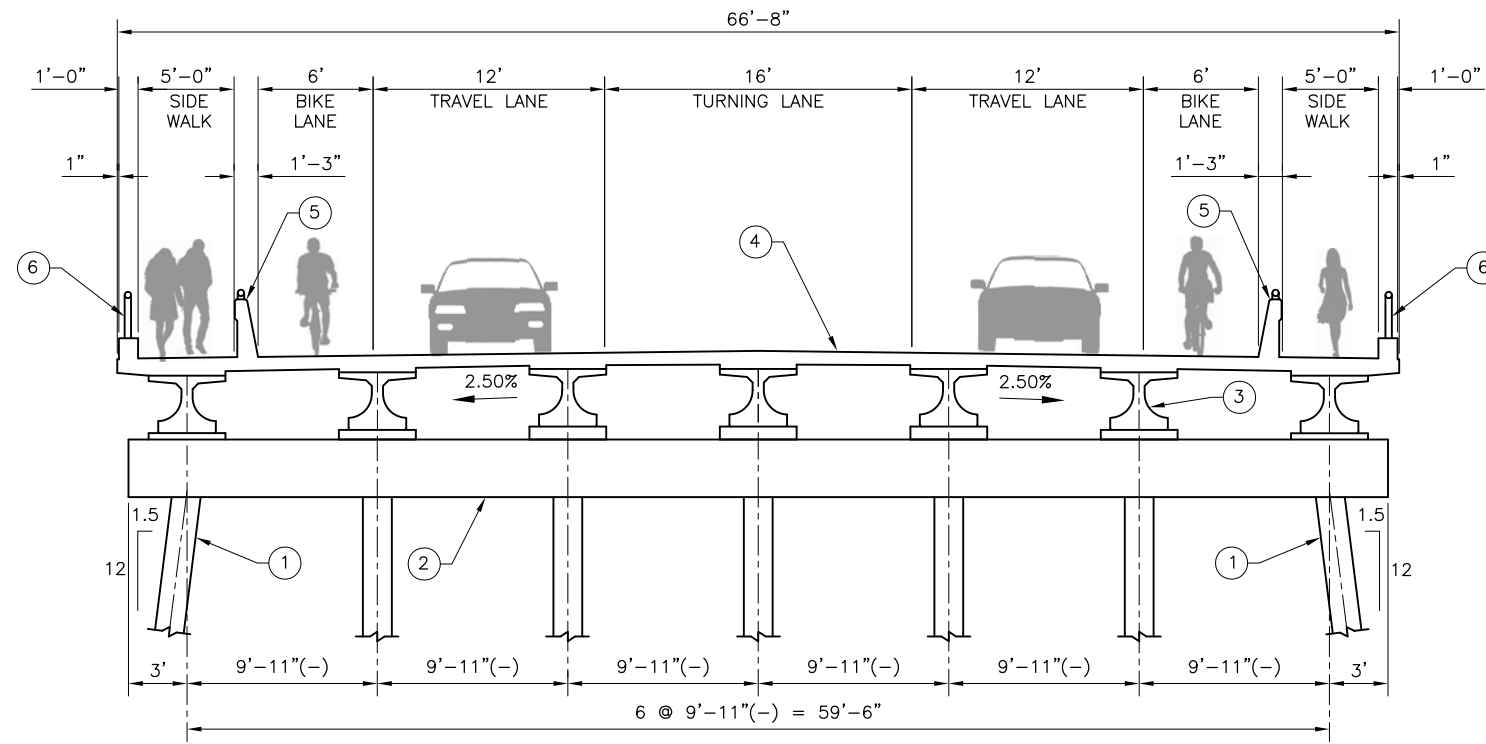
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CONTROL SECTIONS	H008915		DGV JES	CHECKED	
STATE PROJECT	H.008915.2		5 OF 6	SERIES NUMBER	
REVISION OR CHANGE ORDER DESCRIPTION					
DATE					
BY					
NO.					
PLAN LAYOUT - ALTERNATE C					
LA3234 EXT. (LA1065-AIRPORT)					
HY ASSOCIATES, INC.					

LEGEND

- PGL PROFILE GRADE LINE
- C/L PROPOSED ROADWAY
- PROPOSED BRIDGE STRUCTURE
- PROPOSED ROADWAY, S.W. OR SHLDR./BIKE PATH
- PROPOSED REQ'D. R/W
- APPARENT EXIST. R/W
- MATCHLINE
- EXIST. R.R. SPUR
- PROPOSED R.R. CROSSING
- EXISTING SIGNALIZED INTERSECTION



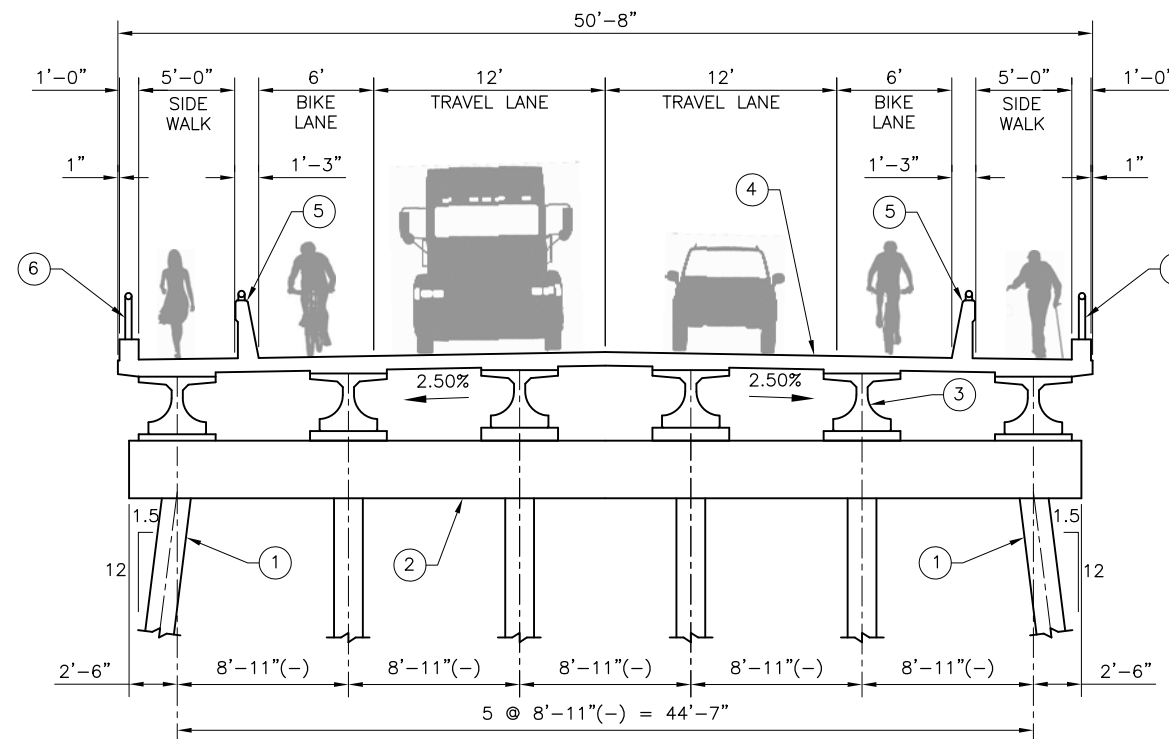
SHEET NUMBER	ALT. C-6	TANGIPAHOA	PARISH	JES DGV	DESIGNED	NO.	DATE	BY
CONTROL SECTIONS	H008915			DGV JES	CHECKED			
STATE PROJECT	H.008915.2			6 OF 6	SERIES NUMBER			
REVISION OR CHANGE ORDER DESCRIPTION								
PLAN LAYOUT - ALTERNATE C LA3234 EXT. (LA1065-AIRPORT)								
DOTD HY ASSOCIATES, INC.								



NEW 3-LANE SECTION
LA3234 BRIDGE SECTION (OVER E. PONCHATOULA CREEK)

SCALE: 1" = 5'-0"

ALTERNATE A & B



NEW 2-LANE SECTION
LA3234 BRIDGE SECTION (OVER E. PONCHATOULA CREEK)

SCALE: 1" = 5'-0"

ALTERNATE C

LEGEND

- ① 18" PPC PILES
- ② CAST-IN-PLACE PILECAP
- ③ LG-36 PRECAST PRESTRESSED CONCRETE GIRDERS
- ④ CAST-IN-PLACE CONCRETE SLAB (8 1/2" THICK)
- ⑤ 36" SINGLE SLOPE BARRIER RAIL WITH HORIZONTAL STEEL PIPE TOP (42" TOTAL)
- ⑥ 1' CONCRETE BARRIER RAIL WITH PEDESTRIAN GUARD RAIL (42")

SHEET NUMBER		TANGIPAHOA	
DESIGNED	JES	PARISH	JES
CHECKED	JES	CONTROL SECTIONS	JES
DATE		STATE PROJECT	H-008915.2
NO.		2 OF 2	
REVISION OR CHANGE ORDER DESCRIPTION			
TYPICAL SECTIONS		LA3234 EXT. (LA1065-AIRPORT)	
BY		DOTD	
DATE		N-Y ASSOCIATES, INC.	

CHAPTER III

THE AFFECTED ENVIRONMENT

In this chapter, the project corridor and study area are first delineated and described. The existing transportation system, including highways and roadways, rail, transit and pedestrian facilities are presented. The Chapter concludes with an examination of the affected human and natural environment for the project. For purposes of analysis, the affected environment is divided into the following categories and sub-categories:

EXISTING TRANSPORTATION SYSTEM

- Roadway Network
- Rail Network
- Transit
- Pedestrian and Bicyclist Conditions
- Airport Facilities

EXISTING HUMAN ENVIRONMENT

- Demographics
- Land Use
- Public Facilities and Services
- Neighborhood And Community Cohesion
- Hazardous and Solid Waste Sites
- Cultural Resources
- Visual/Aesthetic Conditions
- Flood Zones / Floodplains

EXISTING NATURAL ENVIRONMENT

- Scenic Rivers
- Wetlands
- Water Resources (Sole Source Aquifers)
- Soils / Prime Farmland
- Fish and Wildlife Critical Habitat / Threatened and Endangered Species
- Coastal Zone Status

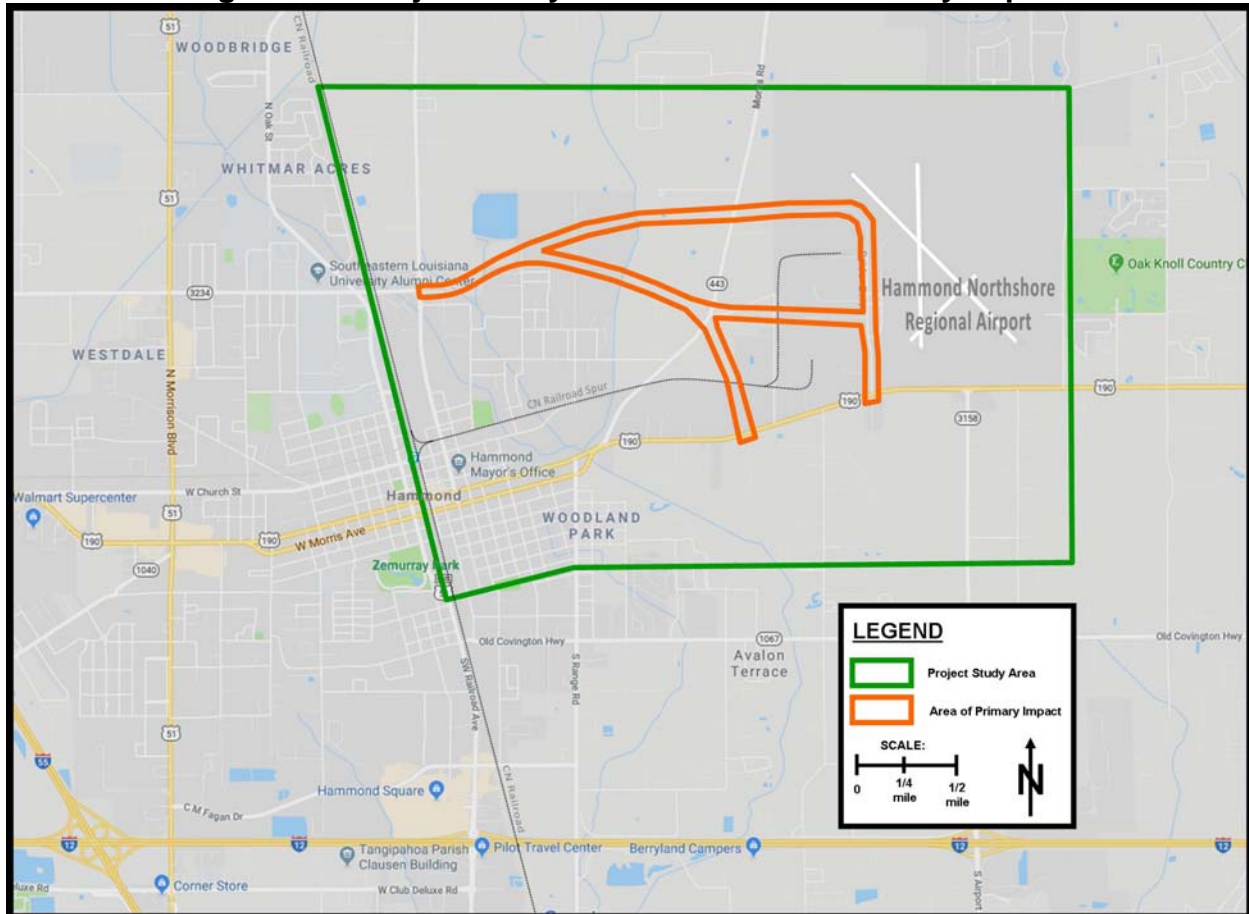
PROJECT AREA

AREA OF PRIMARY IMPACT

The area of primary impact deals with the “footprint” of the project, which includes an area defined by three corridor options between the intersection of LA 1065 and LA 3234, and US 190 in the vicinity of Hammond Airport.

Figure III-1, on the following page, provides a visual display of the area of primary impact.

Figure III-1 Project Study Area and Area of Primary Impact



base source: Google Maps

Within the primary area of impact, direct impacts associated with the project “footprint” will be assessed and explored. These include such impact factors as noise, hazardous and solid waste sites, parks and recreational facilities, visual/aesthetic impacts, construction-period impacts, and most natural environment impacts.

PROJECT STUDY AREA

The project study area is a larger area surrounding the primary area of impact. This area will be examined in order to assess larger impacts that are less directly affected by project construction and more influenced by project implementation, inclusive of traffic impacts and community, social, and economic impacts. Exploration of the project study area also provides an accurate depiction of surrounding neighborhoods for use in examining impacts to the human environment.

The project study area was defined by the LADOTD and FHWA as being bound by the CN railroad on the west, Vineyard Road on the north, Industrial Park Road on the east, and an east-west straight line more-or-less aligned with Iowa Street, E. Park Avenue, and Gorman Road on the south.

See **Figure III-1** above for a visual display of the overall project study area.

EXISTING TRANSPORTATION SYSTEM

ROADWAY NETWORK IN STUDY AREA

The proposed extension is located in the City of Hammond and a portion of unincorporated Tangipahoa Parish. The roadway network in the study area consists of a variety of roadway types, from local streets to US highways.

US 190, which runs east-west, is the primary east-west route within the study area. Until I-12 south of the project area was completed, it was the main east-west highway for the region. US 190 is a two-lane facility east of the LA 433 intersection; west of that it is a divided one-way couplet with two lanes in each direction.

Other major roadways in the area include state highways. LA 3234, of course, is the highway to be extended; it begins at LA 1065 and proceeds westward to I-55, intersecting with US 51 along the way. It is a five-lane divided section from its current terminus to I-55. LA 1065 (N. Cherry Street) is a two-lane street that becomes a state highway north of US 190 and is a major north-south link to LA 3234 and other highways to the north. LA 433 (Morris Road) is a two-lane highway that splits off from US 190 west of the airport and proceeds in a northwesterly fashion to Loranger. And LA 3158 (Airport Road) is a two-lane north-south highway linking US 190 to an interchange at I-12.

The study area is also interlaced with local streets serving residential, commercial and even industrial uses.

RAIL NETWORK IN STUDY AREA

The CN Rail Line lies along the western edge of the project area. An active railroad spur serving sites in the airport industrial area branches off from the CN main line just north of E. Church Street and proceeds easterly, crossing LA 433 (Morris Road) before splitting into two forks just west of Wood Scale Road. The southerly fork extends just under 2,000 feet; the other fork curves to the north then east for about a mile. Both forks service industrial uses.

TRANSIT IN STUDY AREA

The City of Hammond provides deviated-fixed bus routes within the city limits at designated stops. Tangipahoa Public Transportation (TPT) service is operated by the Tangipahoa Voluntary Council on Aging with a grant provided by the LADOTD through Parish Government. Its hours of operation are limited, Monday - Friday, 8:00a.m. - 4:00p.m., and the bus does not operate in dangerous weather conditions or on standard holidays. The bus does travel through the project area, with stops at the Piggly Wiggly on US 190, City Hall, Hammond Senior Center, Martin Luther King Park, and at the Terrace of Hammond Apartments.

BICYCLE AND PEDESTRIAN FACILITIES IN STUDY AREA

The existing portion of LA 3234 has sidewalks on both sides of the roadway between US 51 and N. Oak Street, and a sidewalk on the south side of the roadway between N. Oak and LA 1065 (although there is no sidewalk on the Ponchatoula Creek Bridge).

Sidewalks are present in the downtown area of Hammond, and are intermittent along the residential streets north of downtown.

Outside of downtown, neither LA 1065, US 190, LA 433 nor LA 3188 have any dedicated pedestrian or bicycle facilities.

AIRPORT FACILITIES IN STUDY AREA

Hammond Northshore Regional Airport is located on the eastern side of the project study area. The airfield has dual lighted runways measuring 6500' x 100' and 5001' x 150', and is fully equipped to handle large aircraft. The airfield is over 900 acres and is open to general, corporate, and military aircraft. Also located on the airport site is unimproved land for development by corporate or private aviation individuals. A new air traffic control tower facility was completed at the airport in 2014.

EXISTING HUMAN ENVIRONMENT

DEMOGRAPHICS

Methodology

This section examines existing conditions of the human environment in the study area. The methodology employed involved research of data that define the human environment analyzing socioeconomic demographics from the United States Census.¹ The demographic analysis examines indices by census tract for the following data sets in the study area:

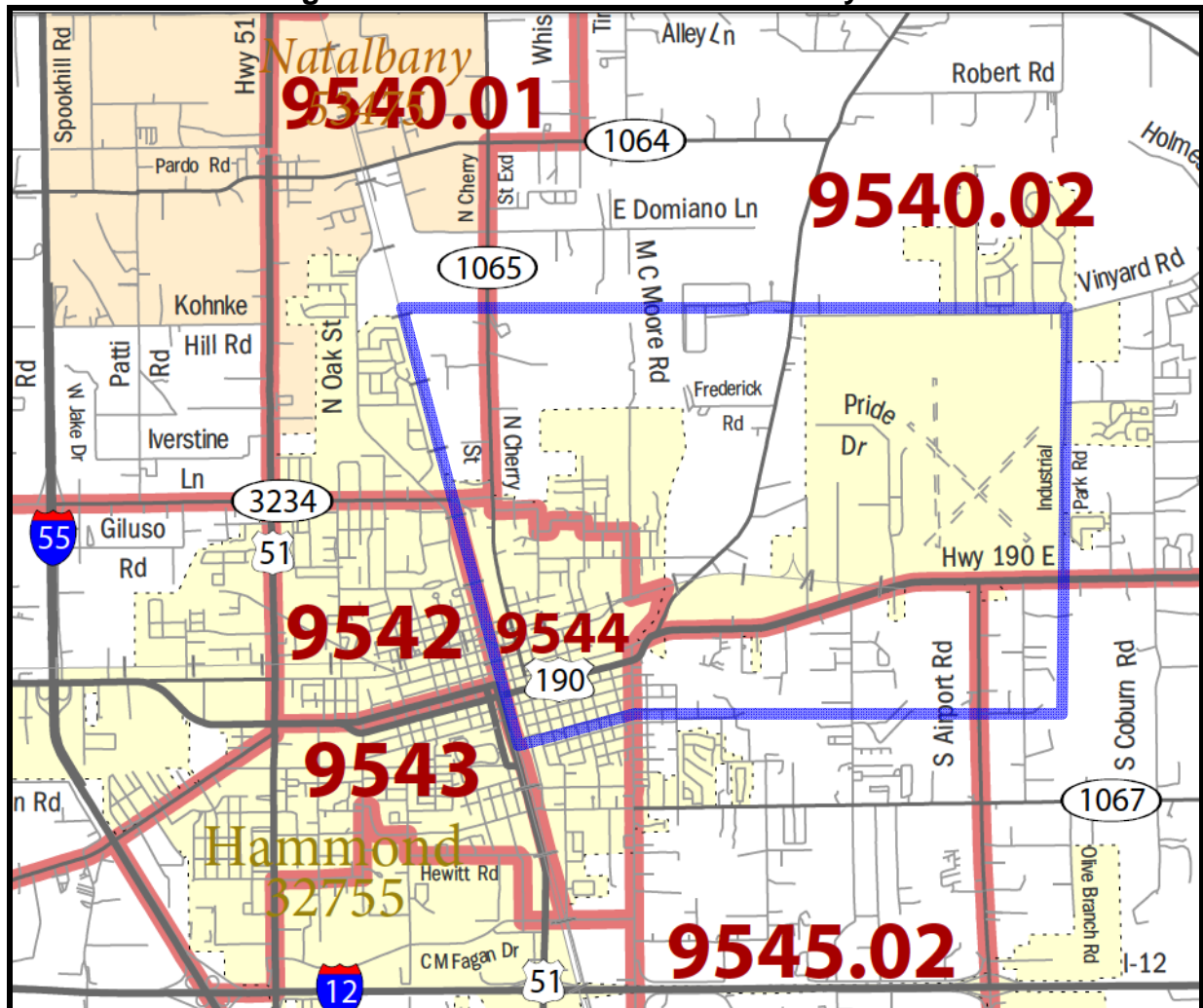
- Population
- Housing
- Business and Economy

Population

As the Study area generally includes portions of five census tracts, the demographic analysis will focus on those census tracts (9540.01, 9540.02, 9542, 9544, and 9545.02) that captures the LA 3234 area of primary impact and the surrounding areas that could be impacted by the project. **Figure III-2** below illustrates the census tract boundaries.

¹ <http://factfinder.census.gov>

Figure III-2 - Census Tracts in the Study Area



The total population of the project study area census tracts was 26,687 persons as of the 2017 Census estimates. The 2010 population for the same census tracts was listed at 23,944 persons, a positive growth of 11.5%.

Tangipahoa Parish also experienced significant growth from 2010 to 2017. Tangipahoa Parish had a total population of 118,190 in the year 2010. 2017 census estimates show the Parish had a population of 128,850, a growth of 9%.

Louisiana during this time has also seen some modest growth. The state had a population of 4,429,940 in 2010, and an estimate of 4,663,461 in 2017, for a positive growth of 5%.

Housing

Table III-1 below explores housing stock in the project by census tract for occupancy and tenure. The tracts associated with the study area contains 10,529 housing units, with 89% occupied and 11% vacant.

Ownership rates vary among the five census tracts. While on the whole, a majority of the units are owner occupied (56%), in three of the five census tracts renters are the majority.

Average household size is roughly the same between owners and renters (between 2-3 persons), and within a narrow range between the census tracts of the study area.

Table III-1 - Housing in the Project Study Area

	Census Tract 9540.01		Census Tract 9540.02		Census Tract 9542		Census Tract 9544		Census Tract 9545.01		All 5 Census Tracts (Study Area)	
HOUSING OCCUPANCY												
Total Housing Units	1,781	100%	2,429	100%	1,678	100%	1,791	100%	2,850	100%	10,529	100%
Occupied housing units	1,604	90%	2,245	92%	1,474	88%	1,501	84%	2,587	91%	9,411	89%
Vacant housing units	177	10%	184	8%	204	12%	296	17%	263	9%	1124	11%
HOUSING TENURE												
Occupied housing units	1,604	100%	2,245	100%	1,474	100%	1,501	100%	2,587	100%	9,411	100%
Owner-occupied	780	49%	1,572	70%	573	39%	659	44%	1,723	67%	5,307	56%
Renter-occupied	824	51%	673	30%	901	61%	842	56%	864	33%	4104	44%
Average household size of owner-occupied unit	3.54	--	2.94	--	2.09	--	2.76	--	2.46	--	2.758	--
Average household size of renter-occupied unit	2.29	--	2.38	--	2.17	--	2.34	--	2.31	--	2.298	--

Table III-2 examines the value of owner-occupied housing units in the project study area, which has a wide range of values from less than \$50,000 to over \$1,000,000.

While the average median value of housing in all census tract is \$173,601, this ranges from a low median value of \$129,735 in Tract 9544 to a high of \$310,658 in Tract 9542.

**Table III-2
Value of Owner-Occupied Housing Units
in the Project Study Area**

	Census Tract 9540.01	Census Tract 9540.02	Census Tract 9542	Census Tract 9544	Census Tract 9545.02	All 5 Census Tracts (Study Area)
Total Units:	689	1,641	448	565	1,642	4,985
Less than \$50,000:	239	287	0	53	234	813
\$50,000 to \$99,999:	64	280	8	217	167	736
\$100,000 to \$149,999:	54	271	43	109	413	890
\$150,000 to \$199,999:	148	265	58	131	421	1,023
\$200,000 to \$299,999:	154	287	177	43	380	1041
\$300,000 to \$499,999:	30	179	107	6	27	349
\$500,000 to \$999,999:	0	57	48	0	0	105
\$1,000,000 or more:	0	15	0	6	0	21
Median Value (dollars)	\$136,321	\$188,620	\$310,658	\$129,735	\$151,934	\$173,601

Business and Economy

This section looks at income and employment for the project study area.

Income

Table III-3 shows the range of income and benefits by household for the study area, which are similar to Louisiana state household income levels. The median household income for all five census tracts in the project study area is \$38,798, noticeably less than the \$46,710 Louisiana household median income in 2017 inflation-adjusted dollars. In fact each of the five census tracts has a lower median income than the State as a whole.

Table III-3 - Income in the Project Study Area

Income and Benefits (in 2017 inflation- adjusted dollars)	Census Tract 9540.01	Census Tract 9540.02	Census Tract 9542	Census Tract 9544	Census Tract 9545.02	All 5 Census Tracts (Study Area)
Total Households	1,413	2,279	1,187	1,416	2,743	9,038
Less than \$10,000	240	164	104	193	167	869
\$10,000 to \$14,999	95	30	190	105	181	600
\$15,000 to \$24,999	252	365	212	245	453	1,526
\$25,000 to \$34,999	130	242	93	110	228	802
\$35,000 to \$49,999	229	481	96	169	568	1,542
\$50,000 to \$74,999	138	417	231	275	307	1,369
\$75,000 to \$99,999	117	160	71	160	398	906
\$100,000 to \$149,999	155	157	95	85	310	803
\$150,000 to \$199,999	37	191	51	68	52	399
\$200,000 or more	20	73	42	8	82	225
Median income (dollars)	\$34,742	\$43,398	\$33,750	\$39,797	\$42,303	\$38,798

Employment

Table III-4 examines employment by occupation for the work force in the project study area in 2017. Primary occupations in the study area are management, business, science and arts, which accounts for 30% of the work force; sales and office with 26%; and service, with 25%.

Table III-4. Occupations in the Project Study Area

Occupation:	Census Tract 9540.01		Census Tract 9540.02		Census Tract 9542		Census Tract 9544		Census Tract 9545.02		All 5 Census Tracts (Study Area)	
	#	%	#	%	#	%	#	%	#	%	#	%
Total:	2,119	100%	2,692	100%	2,022	100%	1,732	1,732	3,518	3,518	12,083	100%
Management, business, science, and arts occupations	492	23.2%	1,015	37.7%	506	25.0%	599	34.6%	1,041	29.6%	3,653	30%
Service occupations	553	26.1%	598	22.2%	453	22.4%	591	34.1%	830	23.6%	3,024	25%
Sales and office occupations	674	31.8%	606	22.5%	716	35.4%	294	17.0%	802	22.8%	3,092	26%
Natural resources, construction, and maintenance occupations	273	12.9%	267	9.9%	214	10.6%	57	3.3%	162	4.6%	973	8%
Production, transportation, and material moving occupations	127	6.0%	207	7.7%	135	6.7%	191	11.0%	682	19.4%	1,343	11%

Table III-5 reviews industries employing the work force in the project study area by census tract. Educational services, health care and social assistance account for 29.5% of industries in the study area census tracts, with 18.1% arts, entertainment and recreation and 13.9% retail trade.

Table III-5 - Industries in the Project Study Area

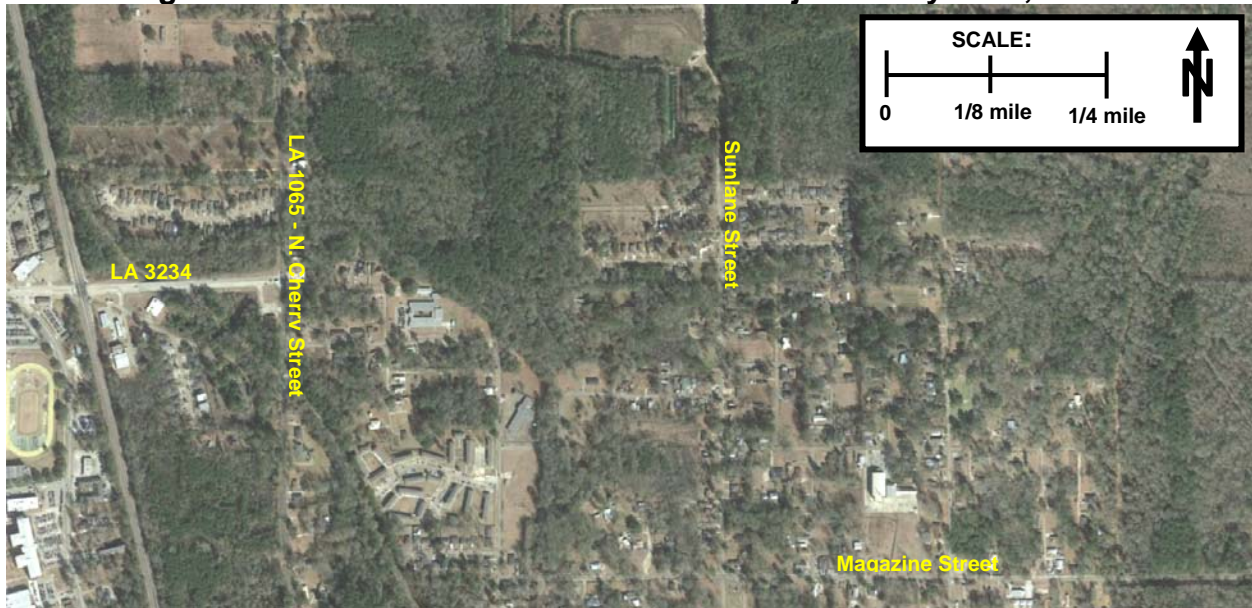
Industry:	Census Tract 9540.01		Census Tract 9540.02		Census Tract 9542		Census Tract 9544		Census Tract 9545.02		All 5 Census Tracts (Study Area)	
	#	%	#	%	#	%	#	%	#	%	#	%
Total:	2,119	100.0%	2,692	100.0%	2,022	100.0%	1,732	100.0%	3,518	100.0%	12,087	100.0%
Agriculture, forestry, fishing and hunting, and mining	17	0.8%	13	0.5%	11	0.5%	17	1.0%	49	1.4%	107	0.9%
Construction	158	7.5%	197	7.3%	191	9.4%	44	2.5%	96	2.7%	686	5.7%
Manufacturing	121	5.7%	252	9.4%	54	2.7%	107	6.2%	499	14.2%	1033	8.5%
Wholesale trade	9	0.4%	0	0.0%	35	1.7%	35	2.0%	157	4.5%	236	2.0%
Retail trade	288	13.6%	338	12.6%	453	22.4%	163	9.4%	432	12.3%	1674	13.9%
Transportation & warehousing, and utilities	63	3.0%	63	2.3%	15	0.7%	72	4.2%	237	6.7%	450	3.7%
Information	9	0.4%	63	2.3%	26	1.3%	19	1.1%	55	1.6%	172	1.4%
Finance and insurance, and real estate and rental and leasing	33	1.6%	119	4.4%	75	3.7%	56	3.2%	108	3.1%	391	3.2%
Professional, scientific, and management, administrative and waste management services	94	4.4%	170	6.3%	114	5.6%	92	5.3%	265	7.5%	735	6.1%
Educational services, health care and social assistance	622	29.4%	1,059	39.3%	532	26.3%	537	31.0%	820	23.3%	3570	29.5%
Arts, entertainment, and recreation, accommodation & food services	622	29.4%	156	5.8%	381	18.8%	462	26.7%	566	16.1%	2187	18.1%
Other services, except public administration	18	0.8%	132	4.9%	80	4.0%	52	3.0%	151	4.3%	433	3.6%
Public administration	65	3.1%	130	4.8%	55	2.7%	76	4.4%	83	2.4%	409	3.4%

LAND USE AND ZONING

Land Use

Analysis of the existing land use was derived from a windshield survey and examination of Google maps² of the proposed LA 3234 extension corridor from the intersection of LA 3234 and LA 1065 to the intersection of Pride Drive and US 190.

Figure III-3 - Aerial View of Land Use in Project Study Area, Part 1



Just west of the western boundary of the project study area where LA 3234 currently terminates, the large Southeastern Louisiana University campus is the dominant land use. East of LA 1065, where LA 3234 would be extended, the land use is mostly low-density residential. There is also a good deal of heavily forested vacant undeveloped property on the northern edge of the study area. A few churches, a school and some multifamily uses are also present.

² <https://www.google.com/maps>

Figure III-4 - Aerial View of Land Use in Project Study Area, Part 2



Heading toward the northwest side of the study area, the undeveloped/vacant land uses continues, along with additional low density rural residential. There is scattered commercial development along LA 433 (Morris Road). On the far northwest side, the land use is dominated by the industrial/warehousing/distribution area along Pride Drive and Lear Drive, along with the facilities of the Hammond Northshore Regional Airport. .

Figure III-5 - Aerial View of Land Use in Project Study Area, Part 3



Near the US 190 portion of the study area, the land use trends continue, with industrial/warehousing/distribution uses along Pride Drive and Lear Drive, as well as south of the airport around the US 190 intersection with Airport Road. Commercial uses and some industrial uses are present along US 190 west of the airport, while north and south of US 190 the land use is more low density residential.

Zoning

Zoning regulation in the project study area is present in one jurisdiction, the City of Hammond. Unincorporated Tangipahoa Parish, in which some of the project area lies, presently has no zoning regulations.

Figure III-6 on the following page illustrates the City of Hammond zoning classifications in the project study area. The zoning in the study area consists of multiple categories—Residential zoning includes Single Family Residential-Agriculture, and several categories of both Single-Family Residential and Multi-Family Residential (RS-3). Commercial Districts, including mixed-use commercial and mixed-use CBD, predominate near the downtown area, while Commercial Highway is present along US 190 east of the LA 433 intersection. Finally, light industrial districts are interspersed along rail lines and spurs, and a large heavy industrial district is present in the Pride Drive area, with a smaller one on the east side of the airport.

The airport itself has its own zoning classification (S-2).

PUBLIC FACILITIES & SERVICES

Methodology

Locations for and lists of addresses for public facilities were obtained from Google maps³, Google Earth, and field reconnaissance.

Findings

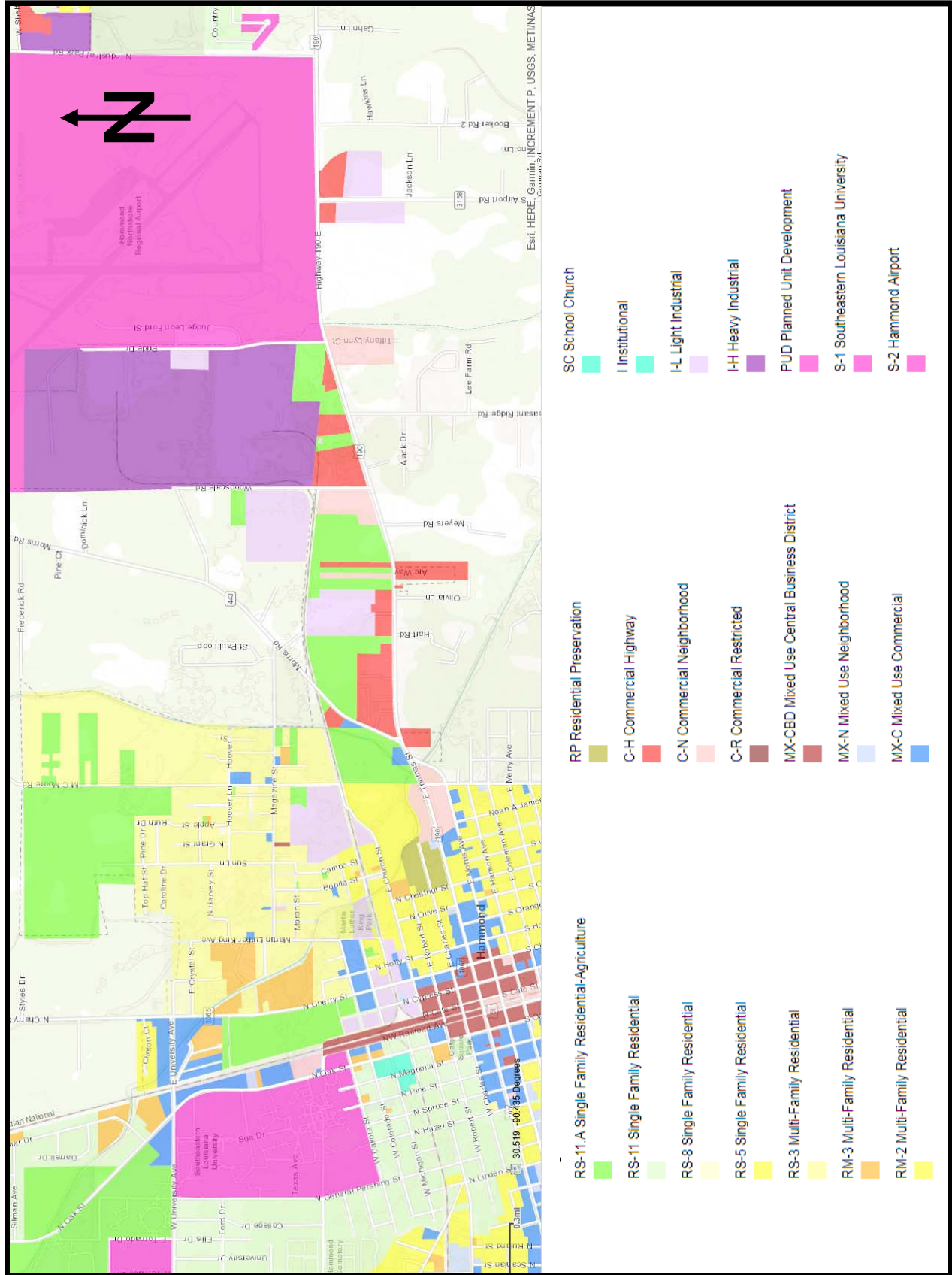
The project study area has a number of public facilities offering a wide range of public services located within the project study area. Analysis of the project study area indicates the following public facilities: 2 Parish government buildings, 1 police station, 2 fire stations, 1 post office, 1 library, 1 park/recreation center, 2 schools, and 12 churches. Following are lists of public facilities and services located in the project study area with addresses.

Churches

- Church of God of Prophecy, 601 S Cypress St.
- Showers of Blessing Church, 507 S Cypress St.
- Beacon Light Baptist Church, 500 E Hanson Ave.
- Hammond Unitarian Church, 217 E Thomas St.
- First Christian Church, 305 E Charles St.
- New Home Family Worship Center, 1300 Martin Luther King Ave.
- Mt. Vernon Missionary Baptist, 1005 Perriloux St.
- Berean Missionary Baptist Church, 104 Angeli Dr.

³ <http://www.google.com/maps>

Figure III-6 - Zoning of the Project Study Area in Hammond, LA



source: http://www.hammond.org/?page_id=1243

Churches (continued)

- St. Paul Baptist Church, 410 E. Colorado St.
- First Bethel Independence Church, 706 N. Cherry St.
- Stillwater Baptist Church, 45205 Morris Rd.
- Eastside Pentecostal Church of God, 44380 S. Range Rd.

Fire Stations

- Hammond Fire Station # 2, 508 E. Thomas Street
- Chief V.B Collura Memorial Station, 2975 US-190

Law Enforcement

- Hammond Police Department, 120 S. Oak Street

Parish Services

- Tangipahoa Library, Hammond Branch, 314 E Thomas St.
- Tangipahoa City Hall/City Administrator, 310 E Charles St.

Parks and Recreation Facilities

- Martin Luther King Park, Martin Luther King Avenue

Post Offices

- U.S. Post Offices, 275 N 5th Street; 105 NW Railroad Avenue

Schools

- Tangipahoa Parish Alternative School, 411 Crystal St.
- Northshore Technical Community College, 111 Pride Dr.

HAZARDOUS AND SOLID WASTE SITES

Methodology

The consultant team conducted a Phase I Environmental Site Assessment (ESA) for the three alternative alignments of the LA 3234 extension project in accordance with the methodology provided in American Society for Testing and Materials (ASTM) Standard Practice E1527-13 and the All Appropriate Inquiries (AAI) documentation requirements set forth in 40 Code of Federal Regulations (CFR) Part 312. The purpose of this Phase I ESA is (1) to identify recognized environmental conditions (REC) in, on, or at the proposed alignments that would have an effect on the project, (2) prepare a comparative analysis of potential hazardous waste contamination among the alternatives, and (3) make a recommendation about the need for additional assessments or actions prior to real estate acquisition or construction of the project.

Situated in Sections 13 and 24 of Township 06 South – Range 07 East and Sections 17, 18, 19, 20, and 21 of Township 06 South – Range 08 East, the alternatives consist of new alignments as well as existing state, federal, and local road rights-of-way (ROW) at East University Avenue (LA 3234), North Cherry Street (LA 1065), Morris Road (LA

443), US Highway (US) 190 East, and Pride Drive. The combined proposed and existing ROW for each alternative comprises the property that is the subject of this evaluation (Subject Property). Sites are defined as facilities, features, or activities identified by the records review and/or site reconnaissance with characteristics that indicate a potential to be deemed a REC.

Findings

A comparative analysis of the findings of the Phase I ESA for each alternative is provided as part of the NEPA review for the proposed project. **Table III-6** summarizes the findings of that analysis, enumerating the sites assessed and sites deemed to be a REC as defined by ASTM. Sites identified as an “environmental concern” do not constitute a REC as defined by ASTM, but were deemed worthy of additional consideration in the future if the pertinent alternative is selected for construction.

Table III-6. Summary of Sites by Alternative

Alternate	Number of Sites Assessed	Sites in/partially in Subject Property				Sites Adjoining Subject Property			
		Active	Inactive	EC	REC	Active	Inactive	EC	REC
A	39	7	2	1	0	13	6	0	1
B	36	5 ^A	2	0	1	10	2	0	1
C	35	9	4	3 ^B	0	3 ^A	1	0	0

EC – Environmental Concern; REC – Recognized Environmental Condition;

^Aincludes a site where it is unknown if recent activities are ongoing. ^Bincludes two sites with de minimis conditions.

Table III-7, on the following page, lists all the sites that were identified by EnviroSite Corporation (EnviroSite) to be within the standard search radii of the Subject Property of each alternative. The table also lists the sites that were not mapped by EnviroSite (orphan sites), but were determined through additional research to be within one mile of the Subject Property.

This analysis shows that only one site, the Air National Guard Facility, is considered to be a REC for Alternative A and for Alternative B. It is not considered a REC for Alternative C, because it is not close enough to cause any hazardous substances or petroleum products to be in, on, or at the Subject Property of that alternative.

**Table III-7
Comparison of Sites Identified by Envirosite**

Alternative A				Alternative B				Alternative C			
Envirosite ID	Short Name	Status	Location Relative to Subject Property	Envirosite ID	Short Name	Status	Location Relative to Subject Property	Envirosite ID	Short Name	Status	Location Relative to Subject Property
A1/A2	LEI	Active	IN	L45/L46	LEI	Active	NOT	J39/J40	LEI	Active	NOT
3	MCC	Active	ADJ	NL	MCC	Active	NOT	NL	MCC	Active	NOT
B4	Cardinal	Active	ADJ	B7	Cardinal	Active	NOT	NL	Cardinal	Active	NOT
C5	SSWI	Active	ADJ	A1	SSWI	Active	ADJ	I33	SSWI	Active	NOT
C6/C7	Entergy	Active	ADJ	A2/A4	Entergy	Active	ADJ	I27/I29	Entergy	Active	NOT
C8	TNT	Inactive	ADJ	A3	TNT	Inactive	ADJ	I28	TNT	Inactive	NOT
C9	Supervalu	Inactive	ADJ	A6	Supervalu	Inactive	ADJ	I25	Supervalu	Inactive	NOT
C10	Delchamps	Inactive	ADJ	A5	Delchamps	Inactive	ADJ	I26	Delchamps	Inactive	NOT
D11	Eckerd	Inactive	ADJ	43	Eckerd	Inactive	NOT	NL	Eckerd	Inactive	NOT
D12	Gen Dyn	Inactive	ADJ	NL	Gen Dyn	Inactive	NOT	NL	Gen Dyn	Inactive	NOT
E13	Penske	Active	ADJ	C8	Penske	Active	ADJ	F18	Penske	Active	NOT
D14	Home Depot	Active	ADJ	NL	Home Depot	Active	NOT	NL	Home Depot	Active	NOT
E15	CHEP	Active	NOT	C9	CHEP	Active	NOT	F13	CHEP	Active	NOT
F16	NTCC	Active	IN	D11	NTCC	Active	IN	C6	NTCC	Active	IN
F17	H&H pump	Inactive	ADJ	D12	H&H pump	Inactive	ADJ	C7	H&H pump	Inactive	ADJ
G18	City of Hammond	Active	ADJ	E13	City of Hammond	Active	ADJ	D8/G21	City of Hammond	Active	IN
G19	Eastside	Active	IN	E14	Eastside	Active	IN	D9	Eastside	Active	IN
22	Gil's	Inactive	IN	17	Gil's	Inactive	IN	12	Gil's	Inactive	IN
C23	Immigration	Active	ADJ	A18	Immigration	Active	ADJ	I30	Immigration	Active	NOT
F26	Diamond	Active	ADJ	D10	Diamond	Active	ADJ	C5	Diamond	Active	IN
28	Air Center	Active	ADJ	30	Air Center	Active	NOT	NL	Air Center	Active	NOT
B29/B30/I31	Nat'l Guard	Active	ADJ	B23/B24/H25	Nat'l Guard	Active	ADJ	K42	Nat'l Guard	Active	NOT
32	Win	Active	IN	27	Win	Active	IN	17	Win	Active	IN
J34	South Truck	Inactive	outside	NL	South Truck	Inactive	outside	NL	South Truck	Inactive	outside
K36	Broddick	Inactive	NOT	G22	Broddick	Inactive	NOT	B4	Broddick	Inactive	NOT
M42	Netco	Inactive	NOT	I32	Netco	Inactive	NOT	A3	Netco	Inactive	IN
M44/M45	HammEx	Active	NOT	I33/I34	HammEx	Active	NOT	A1/A2	HammEx	Active	IN
46	Coffee Bean	Inactive	NOT	41	Coffee Bean	Inactive	NOT	34	Coffee Bean	Inactive	NOT
47	Rende	Active	NOT	44	Rende	Active	NOT	35	Rende	Active	NOT
N49/N50	TPG	Active	NOT	K39/K40	TPG	Active	NOT	H23/H24	TPG	Active	NOT
56	JT	Inactive	NOT	56	JT	Inactive	NOT	53	JT	Inactive	NOT
NL	Carters	Inactive	NOT	51	Carters	Inactive	NOT	43	Carters	Inactive	NOT
NL	JP Allen	Inactive	NOT	NL	JP Allen	Inactive	NOT	G22	JP Allen	Inactive	IN
NL	Dande	Inactive	NOT	NL	Dande	Inactive	NOT	41	Dande	Inactive	NOT
Orphan	Sunlane Debris	Inactive	IN	Orphan	Sunlane Debris	Inactive	IN	Orphan	Sunlane Debris	Inactive	IN
Orphan	The Store	Inactive	NOT	Orphan	The Store	Inactive	NOT	Orphan	The Store	Inactive	NOT

Sites listed in bold and highlighted in dark gray signify a REC for the Subject Property of the alternative. Sites in bold, italics, and highlighted in light gray signify a site of environmental concern, but not a REC for the Subject Property. ADJ-located on adjoining property as defined by ASTM E1527-13; NL-not identified by Envirosite; NOT-not located in Subject Property or on adjoining property; IN-located within or partially within Subject Property; outside-outside standard search distance per ASTM.

Table III-8, on the following page, lists sites not identified by Envirosite, but discovered during site reconnaissance and subsequently investigated. A site within a farm property containing abandoned structures has been recently used for unregulated recycling of parts. Evidence of hydraulic fluids was observed, and due to the unregulated nature of the activities used to extract and collect metals for sale, the probability of past and future releases of lead and other hazardous substances is high. It is unknown whether these activities are ongoing. The site is located within the Subject Property of Alternative B and is considered a REC for this alternative.

**Table III- 8
Comparison of Field Identified Sites**

Alternative A			Alternative B			Alternative C					
Location ID	Short Name	Status	Location Relative to Subject Property	Envirosite ID	Short Name	Status	Location Relative to Subject Property	Envirosite ID	Short Name	Status	Location Relative to Subject Property
30°31'23", 90°26'55"	M C Moore Lift Station	Active	IN	NA	M C Moore Lift Station	Active	NOT	NA	M C Moore Lift Station	Active	NOT
30°31'23", 90°26'50"	Natural Gas Pipeline	Active	IN	30°31'15", 90°26'44"	Natural Gas Pipeline	Active	IN	NA	Natural Gas Pipeline	Active	NOT
30°31'27", 90°26'05"	J M Industrial Sales	Active	IN	NA	J M Industrial Sales	Active	NOT	NA	J M Industrial Sales	Active	NOT
NA	Abandoned Farm Buildings	Unknown	NOT	30°31'26", 90°26'12"	Abandoned Farm Buildings	Unknown	IN	30°31'26", 90°26'12"	Abandoned Farm Buildings	Unknown	ADJ
30°30'49", 90°25'35"	CHEP AST	Active	NOT	30°30'49", 90°25'35"	CHEP AST	Active	NOT	NA	CHEP AST	Active	NOT
30°30'52", 90°25'41"	Graham Packaging	Active	ADJ	30°30'52", 90°25'41"	Graham Packaging	Active	ADJ	NA	Graham Packaging	Active	NOT
30°30'40", 90°25'22"	Piggly Wiggly	Active	ADJ	30°30'40", 90°25'22"	Piggly Wiggly	Active	ADJ	30°30'40", 90°25'22"	Piggly Wiggly	Active	ADJ
2975 Hwy 190 E	Hammond Fire Station #5	Active	ADJ	2975 Hwy 190 E	Hammond Fire Station #5	Active	ADJ	2975 Hwy 190 E	Hammond Fire Station #5	Active	ADJ
NA	Fisher Oaks Vacant Lot	Inactive	NOT	NA	Fisher Oaks Vacant Lot	Inactive	NOT	2345 US 190 E	Fisher Oaks Vacant Lot	Active	IN
NA	LA First Choice Auto	Active	NOT	NA	LA First Choice Auto	Active	NOT	18310 Woodscale Road	LA First Choice Auto	Active	IN
NA	Tycer Ready Mix #2	Active	NOT	NA	Tycer Ready Mix #2	Active	NOT	2105 US 190 E	Tycer Ready Mix #2	Active	IN

Sites listed in bold and highlighted in dark gray signify a REC for the Subject Property of the alternative. Sites in bold, italics, and highlighted in light gray signify a site of environmental concern, but not a REC for the Subject Property. NA-Not Applicable to the Alternative. ADJ-located on adjoining property as defined by ASTM E1527-13; NOT-not located in Subject Property or on adjoining property; IN-located within or partially within Subject Property; outside-outside standard search distance per ASTM.

Although Alternative C passes through a property that adjoins the abandoned farm property, the apparent small-scale operations are not likely to cause the hazardous substances or petroleum products to migrate to the Subject Property of that alternative. Therefore, this site is not deemed a REC for Alternative C.

The locations of the sites identified through site research and reconnaissance are shown in **Figures III-7 through III-10** on the following pages.

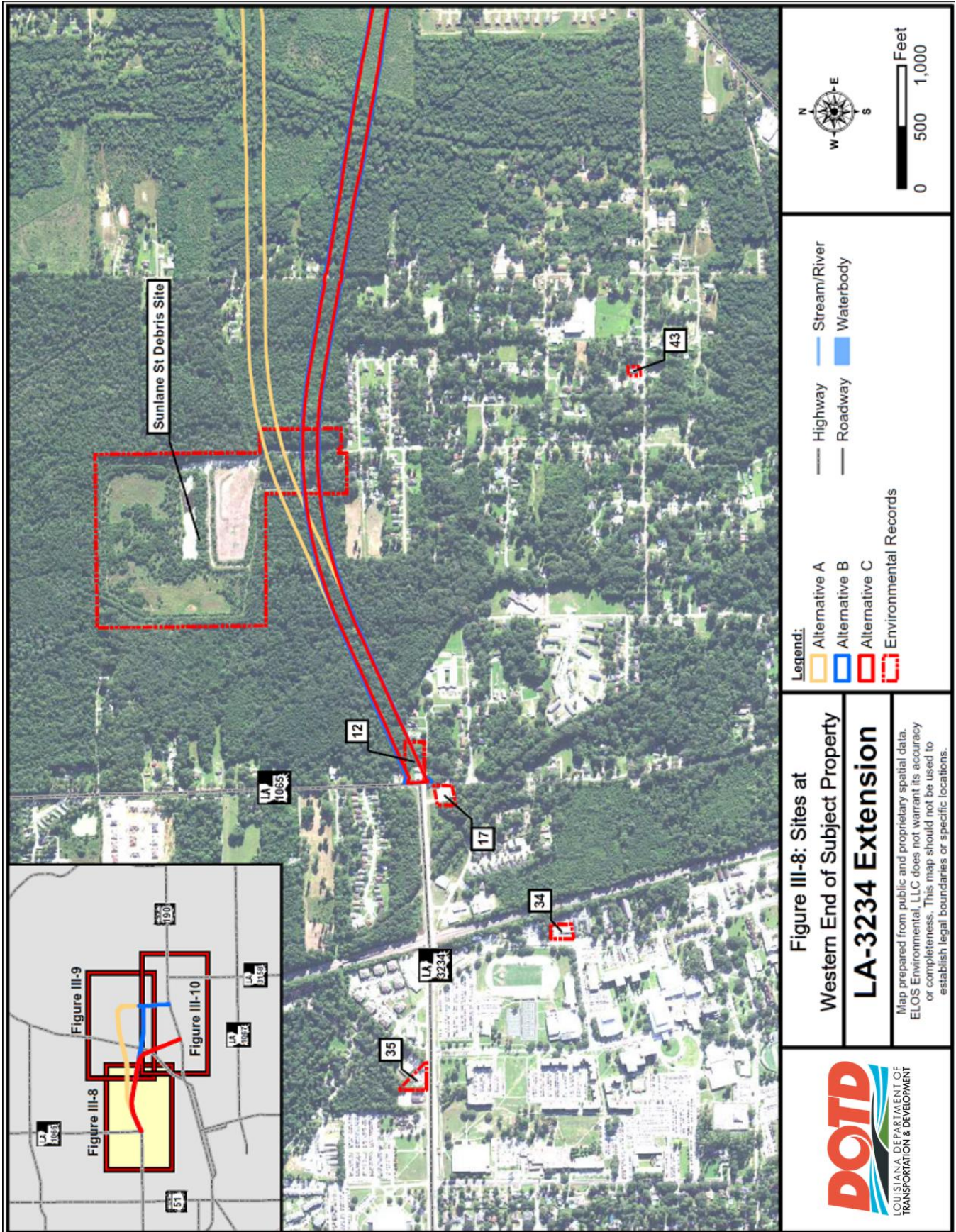
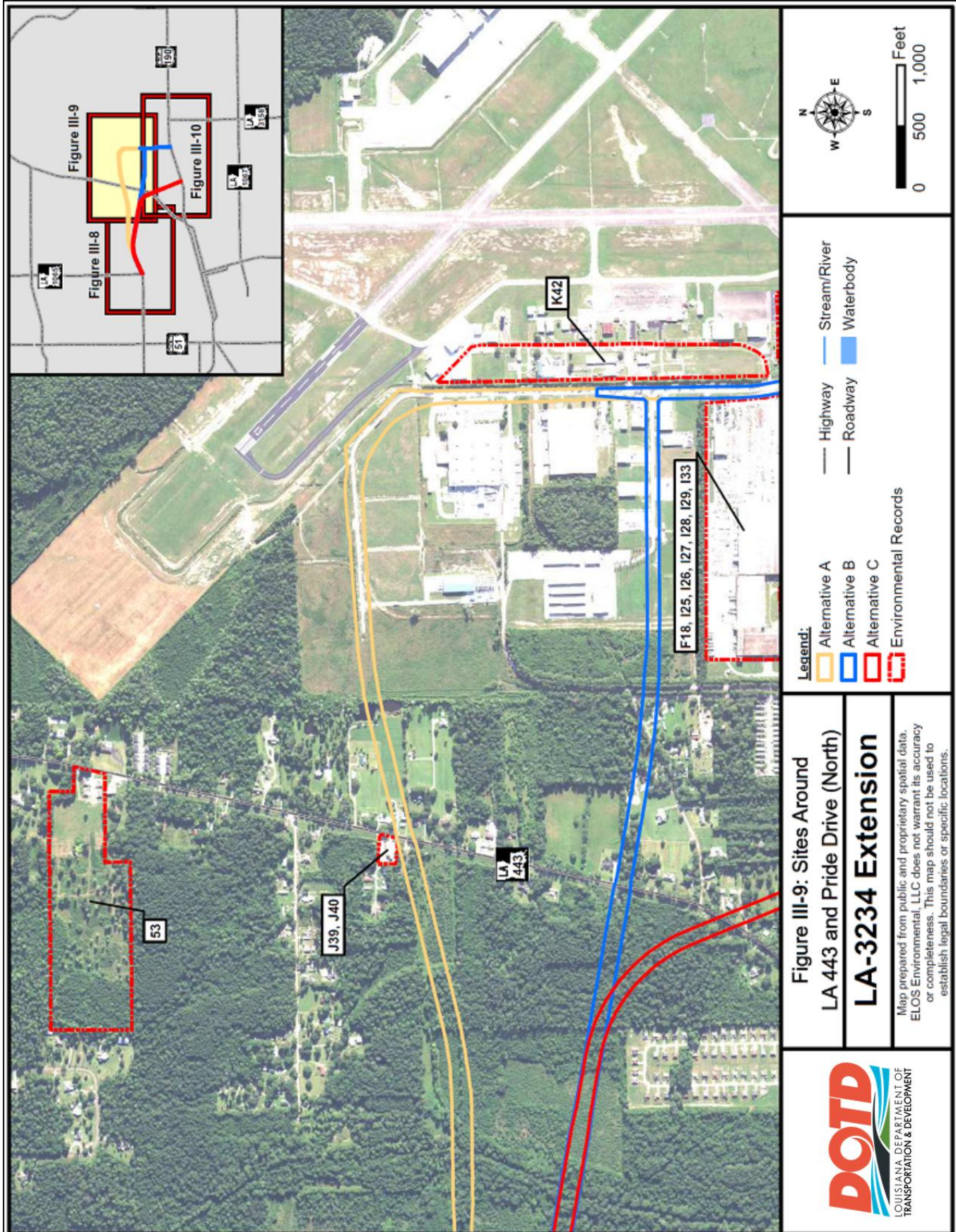


Figure III-8: Sites at Western End of Subject Property

LA-3234 Extension

Map prepared from public and proprietary spatial data. ELOS Environmental, LLC does not warrant its accuracy or completeness. This map should not be used to establish legal boundaries or specific locations.





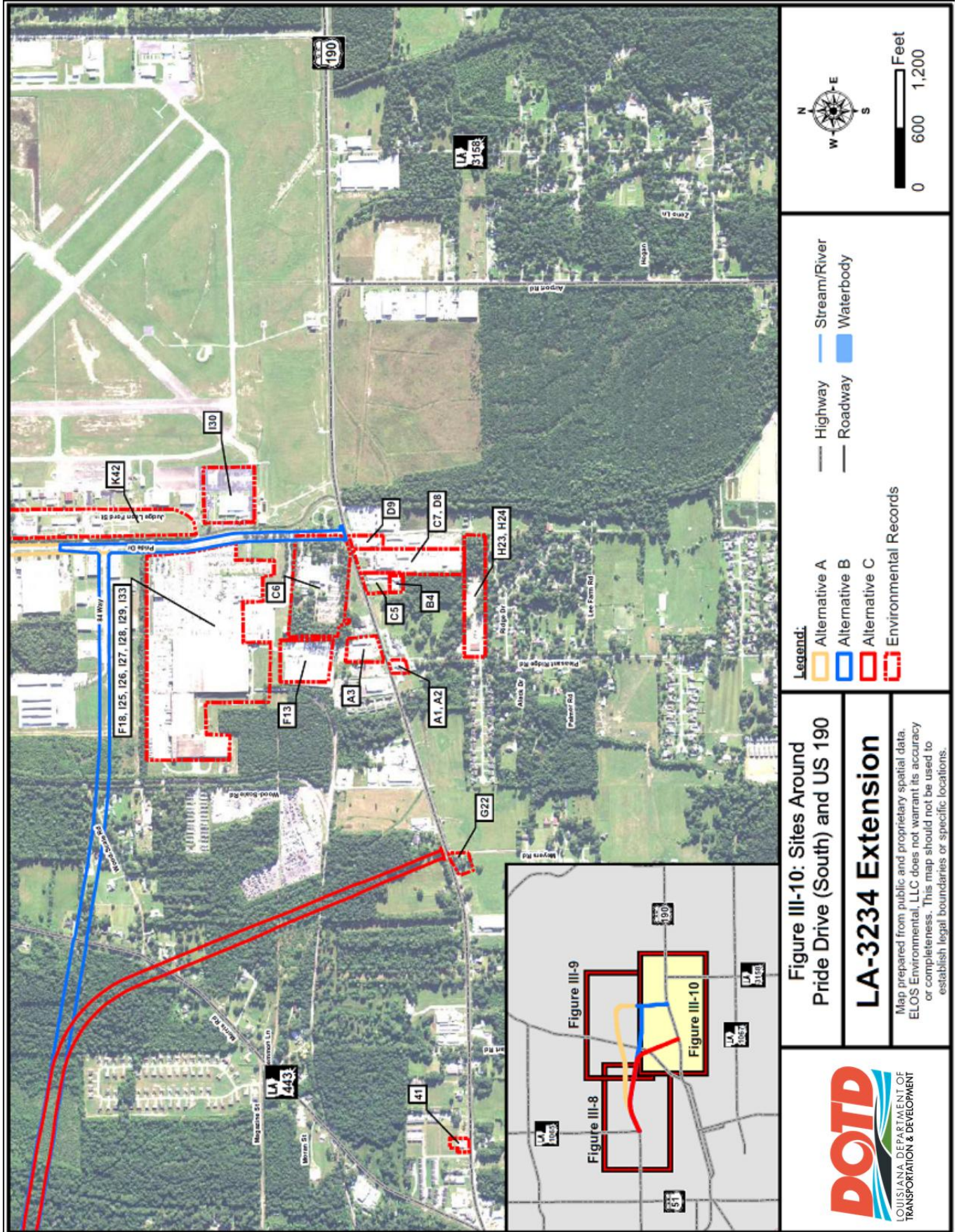


Figure III-10: Sites Around Pride Drive (South) and US 190
LA-3234 Extension

Map prepared from public and proprietary spatial data. ELOS Environmental, LLC does not warrant its accuracy or completeness. This map should not be used to establish legal boundaries or specific locations.



CULTURAL RESOURCES

The consultant team conducted cultural resources investigations for the LA 3234 Extension project. Three build alternates were examined.

Project Area Description

The Direct Area of Potential Effects (APE) for the LA 3234 Extension Project encompassed 144.14 acres (58.36 hectares) and constituted the limits of the required rights-of-way for the three combined alternates, and any construction servitudes necessary for the proposed project. The indirect APE encompassed approximately 1,788 acres (724 hectares), and included the Direct APE and all structures within approximately 246.1 ft (75 m) of the three combined alternates, plus the entire Hammond Airport.

Figure III-11, on the following page, shows the direct APE, standing structure locations, and Indirect APE.

Findings

Eight archaeological sites were encountered within the archaeological project area, three of which were given site numbers by the Louisiana Division of Archaeology (DOA) (16TA121 to 16TA123). The three numbered sites (16TA121 to 16TA123) are recommended as ineligible for listing on the National Register of Historic Places (NRHP) under Criterion D (*yielded or may be likely to yield information important in history or prehistory*). Significant portions of the five remaining sites (1880 House, Barn & Silo, 1929 House, JMIS Shop, and Car Graveyard) were not subjected to subsurface examination, because they were inaccessible (due to the presence of standing structures and pavement), and/or extended outside the project area. Therefore, additional archaeological investigations (i.e., Phase I survey or monitoring) are to be conducted at the five unnumbered sites if they fall within the alternate selected for the LA 3234 Extension Project, and after LADOTD has acquired the property.

Fifty-three (53) standing structures, built in or before 1968, were recorded within the project APE (53-00158 to 53-00210) as a result of this survey. Fifty of these structures (53-00158 to 53-00167, 53-00169 to 53-00196, 53-00198 to 53-00206, and 53-00208 to 53-00210) are recommended as ineligible for listing on the NRHP under Criteria A, B and C. The three remaining structures (53-00168, 53-00197 and 53-00207) are recommended as eligible for listing on the NRHP. The Alack House (53-00168) is recommended as eligible for listing on the NRHP under Criterion C as an excellent example of a shingled Folk Victorian house.

As the last surviving remnants of the Hammond Army Air Field, Structures 53-00197 and 53-00207) are recommended as eligible for listing on the NRHP under Criterion A (*associated with events that have made a significant contribution to the broad patterns of our history*). If they are determined eligible for listing on the NRHP, then any effects

will need to be assessed. However, it is not anticipated that the proposed project will have an adverse effect on these two properties.

VISUAL /AESTHETIC CONDITIONS

The study area corridor presents a varied visual spectrum with highly developed areas on each end, to more dispersed residential and commercial uses moving towards the center, and containing a mostly wooded floodplain and a creek in the center-west area.

The west side of the study area corridor begins at the LA 1065 intersection, and features some low-scale commercial development near the intersection along with widely-spaced modest residential homes along LA 1065. As the common study area corridor heads eastward, it consists of almost entirely flat land with rather low-density residential and a good deal of undeveloped property. The majority of this section of the study area corridor is also very arboreal, with trees and wooded areas often creating a canopy over the local streets. Most of this area is in a flood zone. **Figure III-12** below provides a panorama of MC Moore Road near where the LA 3234 extension would cross in this heavily wooded western section:

Figure III-12 - MC Moore Road Panorama



As the corridor moves further eastward and splits into the three alternates, the land is mostly wooded and undeveloped. Upon approaching LA 433 (Morris Road) each of the alternates begins to encounter development once again—primarily smaller 1-3 story modest homes and buildings, each set some distance apart, along with less tree cover and large open yards and fields. **Figure III-13** below provides a panorama of Morris Road where the LA 3234 extension would cross in this more open section.

Figure III-13 - Morris Road Panorama



East of Morris Road, the vistas change noticeably. In the area around Pride Drive, a variety of industrial buildings can be seen; most of them large and utilitarian. East of the corridor lies the wide-open airfield of the airport. Again, the terrain here remains flat. Figure III-14 below provides a panorama of Pride Drive at its turn to the south, where it would be upgraded to a three-lane roadway as part of the LA 3234 extension.

Figure III-14 - Pride Drive Panorama



Along US 190 the vista is a mixture of low-slung commercial development (including retail establishments, stores, fast food restaurants, businesses) along with wide-open spaces consisting of cleared yet undeveloped land. There are also more industrial buildings south of US 190, both near the Pride Drive intersection and around the LA 3158 (Airport Road) intersection.

FLOOD PLAINS / FLOOD ZONES

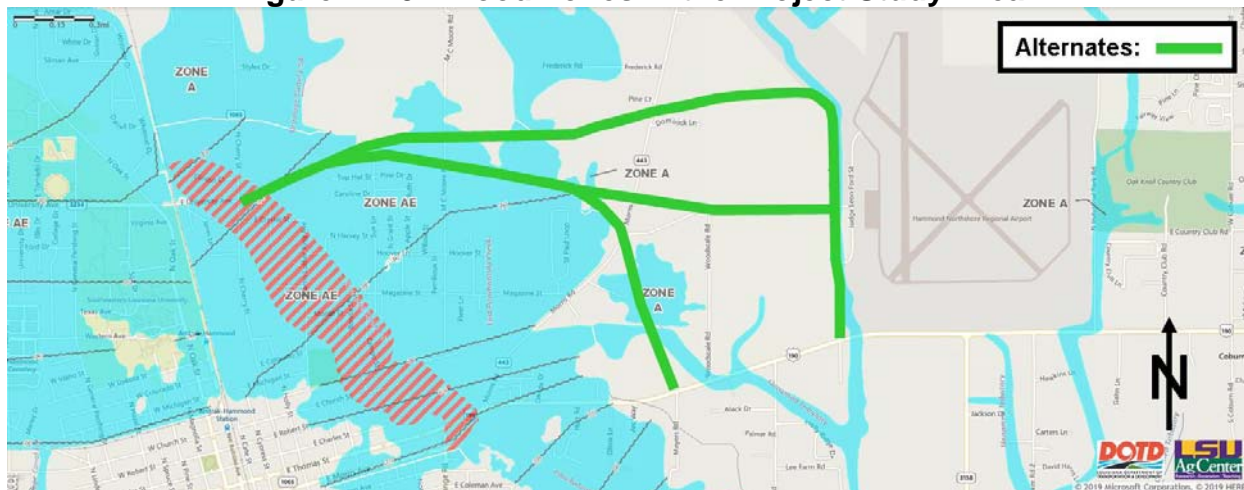
The National Flood Insurance Program (NFIP) was adopted by Congress in 1968 to provide flood insurance to homeowners, renters and business owners. Communities that participate in the NFIP agree to adopt and enforce ordinances meeting or exceeding standards established by the Federal Emergency Management Agency (FEMA) to reduce the risk of flooding. The NFIP regulates development within floodplains for substantial improvements to ensure projects do not present new obstructions to water flows or alter drainage.⁴

Flood Insurance Rate Maps (FIRMs) are official maps on which FEMA has delineated both special flood hazard areas and flood risk zones applicable to a community. FIRMs were examined for Tangipahoa Parish to determine flood risk in the project study area. **Figure III-15**⁵ depicts flood zones in the project study area.

⁴ <http://www.floods.org/index.asp?menuID+651&firstlevelmenuID=187&siteID=1>.

⁵ www.maps/Isuagcenter.com/floodmaps/?FIPS=22105.

Figure III-15 - Flood Zones in the Project Study Area



The FEMA map indicates the project study area is a mixture of areas composed of Flood Zone “X”, shown as unshaded in the figure above, with minimal to moderate risk for flood. Most of the Flood Zone “X” area is located on the eastern side of the project areas.

Most of the western portion of the project area is located in Flood Zones “A” and AE”, shown in blue, which have a high risk for flooding and require mandatory federal flood insurance. A portion of the project study area is even designated as a floodway area for Ponchatoula Creek (indicated on the map by red diagonal hatching)

Definitions of the FEMA flood zone designations⁶ found in the project study area are as follows:

- “Flood Zone X (unshaded)” is an area of minimal flood hazard, usually depicted as above the 500-year flood level (0.2% chance of flooding in any given year).
- “Flood Zone X (shaded)” is a moderate flood hazard area in the 500-year floodplain, and areas of lesser hazards such as areas protected by levees from a 100-year flood, shallow flooding areas with average depths of less than one foot, or drainage areas less than 1 square mile.
- “Flood Zones AE” and “A” are high risk areas in which mandatory flood insurance is required with a 1% annual chance of flooding (100-year or “base” flood) and a 26% chance of flooding over the life of a 30-year mortgage.

The LA 3234 extension project improvements would involve construction near high risk flood areas requiring federal, state and local permits.

⁶ <https://msc.fema.gov/webapp/wcs/stores/servlet/info?storeId=10001&catalogId=1001&la...>

EXISTING NATURAL ENVIRONMENT

SCENIC RIVERS

The Louisiana Natural and Scenic Streams System of the Louisiana Department of Wildlife and Fisheries (LDWF) does not list any wild and scenic rivers within the project area. Additionally, the United States Geological Survey Maps do not denote any wild or scenic rivers.

WETLANDS

The consultant team prepared a *Wetlands Finding Report* for the LADOTD for use in evaluating impacts to wetlands as part of the Stage 1 EA, and to support any future request for jurisdictional determination (JD) and Section 404 of the Clean Water Act (CWA) permit application. The *Wetland Findings Report* is a stand-alone document completed as part of this EA and is considered an Appendix of this EA.

Field Survey

Preliminary Data Gathering

Prior to conducting fieldwork, project team personnel mapped information sources depicting the study area, potential wetlands, and potential waters of the U.S. Desktop data reviewed included United States Geologic Survey (USGS) 7.5-minute topographic maps; color Digital Orthophoto Quarter Quadrangles (DOQQ) from 2008, 2014, and 2015; a modified version of the Tangipahoa Parish Soil Survey; a Digital Elevation Model (DEM), Hydrologic Unit maps, and National Wetlands Inventory (NWI) maps

Fieldwork

Sample locations were taken along each of the three alternatives and were chosen to represent the different plant communities present. A handheld global positioning system (GPS) was used to mark sample locations and delineation limits where possible. The study area boundaries were verified by manually measuring the width in multiple locations in conjunction with the use of the handheld GPS.

Soils

According to the soil survey of Tangipahoa Parish, non-hydric soils are found within the alternative study areas mostly located around existing roadways. The soil survey identifies these non-hydric soils as Abita silt loam, Prentiss fine sandy loam, and Stough soils. The majority of the three alternative study areas contain hydric soils. Guyton and Myatt fine sandy loam soils are identified as hydric soils found within the alternatives. Variations of these soil types were observed during field investigations.

Vegetation

Each alternative study area was observed to consist primarily of commercial areas, undeveloped land, heavily forested areas, existing roadways, and residential areas. Vegetation found within the alternative study areas included: Loblolly pine (*Pinus taeda*), Southern live oak (*Quercus virginiana*), Water oak (*Quercus nigra*), Laurel oak (*Quercus laurifolia*), American persimmon (*Diospyros virginiana*), Chinese Tallow (*Triadica sebifera*), Chinese privet (*Ligustrum sinense*), Muscadine grape (*Vitis rotundifolia*), Poison ivy (*Toxicodendron radicans*), Sweetbay magnolia (*Magnolia virginiana*), Southern magnolia (*Magnolia grandiflora*), Black willow (*Salix nigra*), Yaupon (*Ilex vomitoria*), Southern wax myrtle (*Morella cerifera*), Swamp chestnut (*Quercus michauxii*), Red maple (*Acer rubrum*), Willow oak (*Quercus phellos*), Japanese climbing fern (*Lygodium japonicum*), Big leaf greenbriar (*Smilax rotundifolia*), Notted chain fern (*Woodwardia areolata*), American sweetgum (*Liquidambar styraciflua*), Trumpet creeper (*Campsis radicans*), Black cherry (*Prunus serotina*), Dwarf palmetto (*Sabal minor*), Slender woodoats (*Chasmanthium laxum*), Peppervine (*Ampelopsis arborea*), Blunt broom sedge (*Carex tribuloides*), Royal fern (*Osmunda regalis*), and Blackberry (*Rubus argutus*) among others.

Hydrology

According to the topographic maps provided by USGS and the DEMs, the three alternative study areas are generally flat, between 32 to 48 feet above sea level, with the lowest elevations located along stream bottoms. Under the CWA, ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water are generally not jurisdictional (http://www.usace.army.mil/cw/cecwo/reg/cwa_guide/cwa_guide.htm).

Based on this stipulation, portions of the roadside ditches along each alternative are likely not jurisdictional; however, ditches that drain wetlands are considered wetlands and may be jurisdictional. This area is part of the Tickfaw Watershed (USGS Hydrologic Unit Code [HUC] #08070203) and the Lake Maurepas Watershed (HUC #08070204), which are sub-basins of the Lake Pontchartrain Basin. Evidence of hydrology is present in areas including oxidized rhizospheres along living roots, moss trim lines, saturated soils, water stained leaves, sphagnum moss, high water table, surface water, drainage patterns, and crayfish burrows.

Findings

Evidence observed and documented along the three alternatives indicate that each study area for the extension of LA 3234 contains jurisdictional wetlands and waters of the U.S. as well as non-wetland areas. These wetland habitats were characterized by bottomland hardwoods and pine flatwoods species and were found to be mostly forested, noncommercial areas.

WATER RESOURCES (SOLE SOURCE AQUIFERS)

According to the U. S. Environmental Protection Agency (EPA), the project area is located on the Southern Hills Aquifer system, which is designated a sole source aquifer by that agency.⁷

SOILS / PRIME FARMLANDS

Soils

Soil surveys conducted for Tangipahoa Parish⁸ by the United States Department of Agriculture (USDA) Soil Conservation Service in cooperation with the Louisiana Agricultural Experiment Station were analyzed to derive the types of farmland and soil.

Prime farmland is recognized by the USDA in soil surveys to acknowledge land suitability for cultivation, pasture, and woodland but not for urban and built-up land or water areas. Conversion of farmlands to urban and industrial uses in some portions of the project study area has put pressure on the development of marginal lands for agricultural purposes, which are generally more erodible, droughty, less productive and not easily cultivated. The suitability of prime farmlands is also described for the project study area.

According to the Soil Survey, soils in the project study area primarily consist of the soil type *Guyton-Abita*, which is described as level to gently sloping, poorly drained and somewhat poorly drained, soils that are loamy throughout. This soil type is well-suited for use as woodland and pasture, and moderately well-suited to crops.

Prime Farmland

The construction areas in the project study corridor have been designated as within urban areas by the National Resources Conservation Service, and are therefore exempt from the rules and regulations of the Farmland Protection Policy Act.⁹

FISH AND WILDLIFE CRITICAL HABITAT/ THREATENED AND ENDANGERED SPECIES

Methodology

The project team conducted a Biological Survey Report (BSR) to evaluate the potential effects of the LA 3234 extension project on the federally listed threatened and endangered (T&E) species and state designated species of concern known to occur in or have the potential to occur in Tangipahoa Parish, Louisiana. The methodology and

⁷ S.O.V. response from Omar Martinez, USEPA, 3-20-2018

⁸ http://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/louisiana/LA105/0/gsm.pdf

⁹ S.O.V. response from Kevin Norton, USDA State conservationist, 1-5-2018

contents of this BSR meet the requirements set forth in Title 50 of the Code of Federal Regulations (CFR) Section 402.12 for biological evaluations similar to a biological assessment.

The project team conducted a desktop investigation of all federally and state-listed T&E species and species of concern within the three alternative study areas, collecting data from the Louisiana National Heritage Program (LNHP) database and other resources and through online coordination with the US Fish and Wildlife Service (FWS). The field team then performed an investigation to identify the potential for T&E species and their habitat, as well as rare animals, rare plants, and natural communities of concern within the three alternatives. A 140-foot project corridor extending 70 feet on each side of the LA 3234 proposed centerlines was investigated for the proposed alignments of Alternates A, B, and C.

Findings

Correspondence with agencies indicated that the Louisiana Department of Wildlife and fisheries (LDWF) determined that no impacts to rare, T&E species or critical habitats are anticipated. The FWS listed the gopher tortoise as the only species of concern in the project corridor. All species of concern identified by FWS and LNHP in the project corridor are discussed below.

The federally listed T&E species for the proposed alignments were identified by utilizing the FWS Information for Planning and Consultation (<https://ecos.fws.gov/ipac/>). A copy of the response letter dated May 11, 2017 is included in the Appendix.

Research of the LNHP website identified 27 rare animal species, 33 rare plant species, and 11 natural community types with a potential to occur within Tangipahoa Parish (<http://www.wlf.louisiana.gov/wildlife/species-parish-list>).

Federally Listed T&E Species

The Project Team used information collected from the LNHP Species by Parish website¹⁰ and other available sources to evaluate impacts to federally listed T&E species identified in the FWS response letter. **Table III-9** identifies the federal and state rankings, comments from FWS, and summarizes the impact analysis.

¹⁰ According to LDWF the Species by Parish List searchable database (LNHP 2017) provides information on species occurrence that is the most current regarding range. Therefore, the range maps provided were prepared based upon the Species by Parish search results and may conflict with the maps provided in the factsheets cited in the text.

Table III-9: Federally Listed T&E Species

Scientific Name	Common Name	State Rank	State Status	Federal Status	Agency Comments	Potential Impacts
<i>Acipenser oxyrinchus (=oxyrhynchus) desotoi</i>	Atlantic sturgeon (gulf subspecies)	S1	T	T	Proposed project location outside designated critical habitat.	No suitable habitat
<i>Gopherus polyphemus</i>	Gopher tortoise	S1	T	T	No critical habitat has been designated for this species.	No suitable habitat
<i>Picoides borealis</i>	Red-cockaded woodpecker	S2	E	E	No critical habitat has been designated for this species.	No suitable habitat
<i>Trichechus manatus</i>	West Indian manatee	S1N	E	E	Proposed project location outside designated critical habitat.	No suitable habitat

Key: T = Threatened E = Endangered

S1 = Critically imperiled in LA because of extreme rarity (5 or fewer known extant populations) or because of some factor(s) making it especially vulnerable to extirpation

S2 = Imperiled in LA because of rarity (6 to 20 known extant populations) or because of some factor(s) making it very vulnerable to extirpation

Modifiers B or N may be used as qualifier of numeric ranks and indicating whether the occurrence is breeding or non-breeding (LNHP 2017)

COASTAL ZONE STATUS

The Louisiana Department of Natural Resources (DNR) is charged with the development of local coastal zone management programs in the 20 existing coastal parishes. Tangipahoa is considered a Coastal Parish. The project corridor is located within the Parish's Coastal Zone boundary.

CHAPTER IV

ENVIRONMENTAL IMPACTS OF THE CONSIDERED ALTERNATIVES AND SELECTION OF PREFERRED ALTERNATIVE

In this chapter, the impacts of the considered alternatives (No-Build Alternative and the three Build Alternatives) are assessed relative to the evaluation categories of transportation and traffic, human environment, and the natural environment. Impact assessment categories include:

IMPACTS ON TRANSPORTATION AND TRAFFIC

IMPACTS ON THE HUMAN ENVIRONMENT

- Displacements/Relocations
- Environmental Justice
- Neighborhood / Community Cohesion
- Land Use and Zoning
- Access to Community Facilities and Services
- Impacts to Parks and Recreation Facilities
- Historic/Cultural Resources
- Visual/Aesthetic Impacts
- Air Quality Impacts
- Traffic Noise and Impacts
- Construction Period Impacts
- Hazardous and Solid Waste Sites

IMPACTS ON THE NATURAL ENVIRONMENT

- Vegetation
- Wetlands
- Natural and Scenic Rivers
- Threatened and Endangered Species
- Hydrology, Floodplains & Flooding
- Water Resources (Sole Source Aquifers)
- Prime Farmland and Soils

A constraints/potential impacts map of all major projected impacts projected onto an aerial view of the project area and the three alternative routes is presented

The chapter then provides a comparative analysis between the four alternatives based on their ability to meet the project Purpose and Need as well as the impacts of each, and describes the selection of the Preferred Alternative.

IMPACTS ON TRANSPORTATION AND TRAFFIC

TRAFFIC IMPACTS

As part of the EA, a *Traffic Analysis Report* was completed for the project. Portions of the report were used to help describe the traffic-related impacts of the project. The report provided a comprehensive traffic review of the study area, including traffic volume counts at key intersections, a safety analysis of the existing conditions, and estimating the 25-year traffic projections (Year 2044) for the study area.

No-Build Alternative

Volume output from the RPC's regional transportation models (TransCAD) was reviewed to assist with estimating projected No-Build volumes. The 2015 Base Year and 2044 No-Build ADT data is useful in projecting scenarios for the No-Build Alternative compared to today. Table IV-1 presents two locations as examples.

**Table IV-1
Current VPD Volumes vs. No-Build Volumes**

Location	Existing 2015 (veh/day)	No-Build 2044 (veh/day)
LA 3234 (Near US 51)	16,061	30,532
US 190 (@Pride Drive)	12,024	18,049

As shown in **Table IV-1**, vehicular traffic on LA 3234 is expected to increase significantly. Traffic along US 190 is expected to grow, but not to the same degree as on LA 3234.

Build Alternatives

To examine the effects of the three build Alternatives, model runs for each scenario which were completed using the RPC's regional transportation models were examined. A review of the peak period TransCAD output data indicated a high level of uncertainty and questionable volume changes between the No-Build and Build models at the study area intersections. TransCAD model volume output data is not intended to be used as absolute, especially at the micro level such as peak periods at intersections. Model output is a useful tool as it predicts changes to traffic patterns on a macroscopic level. Existing intersection control could be used where the three alternatives are aligned with existing intersections. Where new intersections are created, stop condition for the minor street could be put in place. Further study should be done at these intersections after construction to determine intersection improvements based on actual volume demand.

In general, the following traffic impacts were found when comparing the future No-Build scenario to the Build Alternative scenarios:

- Pride Drive shows a small but noticeable increase between the existing volumes and the No-Build Alternative, indicating continued growth in the area, but on Alternatives A and B it shows substantial growth, indicating that the LA 3234 extension would divert a substantial volume of traffic from US 190 through downtown.
- Alternative volumes along existing LA 3234 (between I-55 and LA 1065) would increase over those projected for the No-Build Scenario, but this would be a small increase-- not at all as great as the increase noted between current level volumes to the No-Build Scenario.
- On US 190, west of Pride Drive, volumes would decrease over volumes projected for the No-Build Scenario. In the downtown area, this is often by similar volume as the increases at LA 3234. This also indicates that the idea of transferring traffic from the US 190 corridor to the new route and existing LA 3234 would be successful.
- In most areas of downtown, US 190 traffic volumes would not only be reduced below those of the No-Build scenario, but would be reduced close to what they are currently.

Location of likely traffic impact locations can be seen on **Figure IV-5** on page IV-33.

POTENTIAL TRUCK TRAFFIC IMPACTS

No-Build Alternative

The No-Build Alternative will maintain the status quo in terms of truck traffic *routing*. However, as the area around Hammond airport continues to be further developed with industrial and warehousing/distribution uses, east-west truck traffic should noticeably increase on streets such as Morris and Thomas Streets through downtown (US 190).

Build Alternatives

All three Build Alternatives should accommodate both the existing and expected increase in east-west truck traffic better than the roadway system does currently and better than it would under the No-Build scenario. Rather than pass through the urban center of town on local streets with multiple stop conditions, trucks will be able to bypass this area, on a roadway route with limited access and a 45 mph speed limit. All three build alternates will link a US Highway to a five-lane state highway with a wide right-of-way designed to adequately handle a mix of truck and regular traffic.

POTENTIAL RAIL AND TRANSIT IMPACTS

No-Build Alternative

No impacts to rail or transit are anticipated under the No-Build Alternative.

Build Alternatives

Alternate A would require no new rail crossing of the CN railroad spur, as it lies to the north of the spur.

Alternates B & C would require new rail crossings of the active CN railroad spur (*location of these new rail crossing impacts can be seen on **Figure IV-5** on page IV-33*). Any new rail crossing would need to be built to current standards with signage and signals. Correspondence with staff from CN revealed the following¹:

1. Options B and C both involve the construction of a new at-grade crossing of the spur rail line near the east end of the project. This construction will require the review of the proposed location to determine the appropriate warning device. The construction of a new at-grade crossing in either case would likely cost approximately \$100,000; the warning devices could also cost an additional \$100-\$150,000 or more depending on what is needed for the operation of the device.
2. In the case of Alternate C, the cost could be even higher since this crossing may be in proximity to the LA 443 crossing and require interconnection between the signals which would increase the cost further.
3. Additional maintenance costs would also be incurred by the city for the crossings proposed under Alternates B and C, such as annual maintenance of gates, repairs to warning devices if a gate is broken in a collision or a signal controller is struck by lightning (the signal is connected to a long steel ribbon so this is a possibility to consider). Also, the city would have to replace the crossing surface (and possibly warning devices if needed) every 10 to 15 years and the cost for replacement would be the same as the initial costs (see above).
4. In addition to these issues, both Alternates B and C cross within close proximity to a rail switch. This will need to be considered since the rail switch will likely need to be upgraded to allow proper function of the warning devices. Older switches (which may be at this location) were not electrically insulated and as such would appear to a signal controller as a “short” in the warning circuit. As a signal controller’s means of detecting approaching trains is when the rail wheels “short” the circuit between the rails, one can understand that the issue with the switch may be detrimental to the function of an active warning device. Replacement or upgrade of the switch to function properly with the signal would likely cost approximately \$700,000.

Alternates A, B and C would likely reduce the volume of vehicles crossing the CN mainline track at US 190 (and nearby crossing locations) while increasing the amount of railroad crossings at LA 3234.

¹ 4-27-2018 email from Jared Ray, P.E., LADOTD Railroad Construction Program Manager

The Tangipahoa Public Transportation (TPT) transit service will likely benefit from better access (along with the rest of vehicular traffic) via the new linkages provided by the Build Alternatives.

POTENTIAL IMPACTS TO BICYCLE AND PEDESTRIAN FACILITIES

No-Build Alternative

Pride Drive and Lear Drive, the only two existing roadways which would be upgraded under the Build Alternatives, do not currently have bicycle and pedestrian facilities and would remain that way under the No-Build Alternative. The current sidewalks along LA 3234/University Avenue would remain, and the planned new sidewalks on LA 3234 from US 51/Morrison Road west to Puma Drive/I-55 Interchange would still be constructed. No adverse impacts are anticipated with the No-Build Alternative.

Build Alternatives

The build alternatives for the LA 3234 Extension will have a positive impact on bicycle and pedestrian access, by providing a Complete Streets typical section with bicycle lanes and sidewalks in each direction. This safe route will be able to be accessed at local street and roadway intersections, such as Sun Lane, MC Moore Road, and Morris Road. Pedestrians and bicycles alike will have a safe and complete route extending from LA 1065 to US 190, and with the new improvements scheduled for LA 3234, pedestrians in particular will have a nearly complete sidewalk route between I-55 and US 190.

IMPACTS ON THE HUMAN ENVIRONMENT

DISPLACEMENTS/RELOCATIONS

Legal Requirements

Various federal statutes have been enacted to establish a uniform policy for the fair and equitable treatment of persons displaced, and from whom land is acquired as a result of programs designed and funded for the benefit of the public as a whole. Some of the applicable laws that guide government actions for acquisitions, displacements and relocations are:

- 49 CFR Part 24, Department of Transportation implementing regulations for: "The Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970," as amended.
- National Environmental Policy Act of 1969 (NEPA)

These laws provide for a process that is fair and requires practical and financial assistance in helping individuals and businesses transition into a comparable situation.

Any private property acquisition required for this project would be in compliance with the identified laws and statutes.

For housing units, these laws require that replacement housing must be “decent, safe and sanitary” and must be functionally equivalent to the number of rooms, living space, location, and general improvements of the displaced units. Replacement dwellings must also meet all of the minimum housing requirements established by federal regulations and conform to occupancy codes.

Relocation benefits may also be available for businesses, farms, and non-profit organizations. Payment may be made for:

- Moving costs
- Tangible personal property loss as a result of relocation or discontinuance of an operation
- Re-establishment expenses
- Costs incurred in identifying a replacement site

Businesses, farms or non-profit organizations may be eligible for fixed payments in lieu of moving and reestablishment costs.

No-Build Alternative

Under the No-Build alternative, existing conditions would be maintained. The No-Build Alternative would not require any displacements or relocations and, thus, would not result in any direct or indirect impact(s) to the study area. In addition, no property acquisitions would be required with the No-Build Alternative.

Build Alternatives

Alternate A

The proposed project would displace an estimated five (5) households with an average number of four (4) members each. Indications are that all displaced families are of low-medium to medium income range, and that four (4) displaced families are of a minority race. Four (4) of the families estimated to be displaced are owner occupants. One (1) family estimated to be displaced are tenant occupants. Estimated values of the residences range from \$70,000 to \$225,000, with the average being \$100,000. Two (2) of the five (5) displaced families occupy mobile homes. Two (2) of the five (5) displaced families occupy single family residences of wood frame only construction, while one (1) of the five (5) displaced families occupy a single-family residences of wood frame construction with brick veneer exteriors. One (1) mobile home and the two (2) wood frame only residences do not appear to meet decent, safe, and sanitary standards.

It is estimated that one (1) business and one (1) landlord re-establishment would be displaced. Indications are that no minorities are employed within the business or within the landlord situation. There are four (4) personal property-only displacements on the

proposed project. These include the contents of three (3) sheds, as well as one (1) personal property-only displacement of a very large amount of electrical equipment currently situated along the fence line of the large Entergy site along Pride Drive. Any personal property-only displacements should all be able to be moved onto the remaining portion of the affected properties.

The previously mentioned one (1) business estimated to be displaced by the proposed project includes a commercial building that is currently partially situated within the required area of Alternate A. Historically, most displaced businesses on rural or semi-rural projects tend to relocate onto remainder properties, or within the general area of displacement. The previously mentioned one (1) displaced Landlord can readily replace his or her business as there are numerous current listings of residential homes for sale within the Tangipahoa Parish area upon which the displaced landlord can replace his or her business. The displacements should not cause any adverse effect upon the economy of the area.

Alternate B

The proposed project would displace an estimated four (4) households with an average number of four (4) members each. Indications are that all displaced families are within the low-medium to medium income range, and that two (2) displaced families are of a minority race. It is believed that three (3) families estimated to be displaced are owner-occupants, and one (1) family estimated to be displaced are tenant occupants. Estimated values of the residences range from \$80,000 to \$250,000, with the average being \$150,000. One (1) of the four (4) families occupy a mobile home, and this is the tenant occupied residence. One (1) single family residence is of wood frame construction, while two (2) single family residences are of wood frame construction with brick veneer exteriors. The mobile home residence does not appear to meet decent, safe, and sanitary standards. It is estimated that one (1) business and one (1) landlord re-establishment would be displaced. Indications are that no minorities are employed within the business or within the landlord situation.

The previously mentioned one (1) business estimated to be displaced by the proposed project includes a commercial building that is currently partially situated within the required area of Alternate B. The commercial building appears to currently be vacant. The commercial building is relatively new, and it is anticipated that it will be occupied prior to the beginning of the project. The previously mentioned one (1) displaced Landlord can readily replace his or her business as there are numerous current listings of residential homes for sale within the Tangipahoa Parish area upon which the displaced landlord can replace his or her business. The displacements should not cause any adverse effect upon the economy of the area.

There are four (4) personal property-only displacements on the project. These include the contents of three (3) sheds, as well as one (1) personal property-only displacement of a very large amount of electrical equipment currently situated along the fence line of the large Entergy site along Pride Drive. It is anticipated that the electrical equipment can be relocated within the remainder of the large Entergy site.

Alternate C

The proposed project would displace an estimated two (2) families, with an average number of four (4) members each. Indications are that all displaced families are of a low-medium to medium income range, and that one (1) displaced family is of a minority race. It is believed that one (1) family estimated to be displaced is an owner-occupant, and one (1) family estimated to be displaced is a tenant occupant. The estimated value of the one (1) affected single family residence is \$80,000. That single family residence is of wood frame construction. One (1) of the two (2) displaced families occupies a mobile home. That family is the tenant occupant. The mobile home does not appear to meet decent, safe, and sanitary standards.

It is estimated that one (1) landlord re-establishment will be displaced. Indications are that no minorities are employed within this landlord situation. The one (1) displaced Landlord can readily replace his or her business as there are numerous current listings of residential homes for sale within the Tangipahoa Parish area upon which the displaced landlord can replace his or her business. The displacements should not cause any adverse effect upon the economy of the area.

There is one (1) personal property only displacement on the project. This consists of the contents of a single shed, and possibly the shed itself if not valued as realty, and both can likely be moved onto the remainder site.

General

No special or unusual conditions have been identified. No discussions have been held with local officials or community groups regarding potential displacements. It is anticipated that there is adequate housing available for the potential displaced occupants, and in some cases there may be adequate room on remainder property upon which they may choose to relocate.

ENVIRONMENTAL JUSTICE

Background²

Environmental justice policy was established in 1994 by Executive Order 12898, which required federal agencies to identify and address disproportionately high and adverse human health or environmental effects of programs, projects and activities on minority and low income populations in the United States.

In 2012, the United States Department of Transportation (DOT) and the Federal Highway Administration (FHWA) adopted order numbers 5610.2(a) and 6640.23A, respectively, updating and clarifying environmental justice procedures. Environmental justice is required to be incorporated early in the development of the programs, policies or activities to identify the risk of discrimination and disproportionately high and adverse

² http://www.fhwa.dot.gov/environment/environmental_justice/ej_at_dot/order_56102a/inde...

effects on minority and low income populations so that positive corrective action can be taken. Under these orders, analysis of environmental justice issues will consider:

- Examination of environmental, public health and interrelated social and economic effects of programs, policies and activities.
- Mitigation and enhancement measures and potential offsetting benefits to the affected minority and low income populations will be taken into account in determining whether a particular program, policy or activity will have disproportionately high and adverse effects.
- Solicitation of public involvement opportunities including affected minority and low income populations in considering alternatives.
- Consideration of alternatives to proposed programs, policies and activities that would avoid, minimize and/or mitigate disproportionately high and adverse environmental or public health effects and interrelated social and economic effects.
- Programs, policies and activities that are determined to have disproportionately high and adverse effects on minority and low income populations will only be carried out if:
 1. A substantial need for the program, policy or activity exists based on the overall public interest.
 2. Further mitigation measures or alternatives that would avoid or reduce the disproportionately high and adverse effects are not practicable. In determining whether a mitigation measure or alternative is practicable, the social, economic (including costs) and environmental effects of avoiding or mitigating the adverse effects will be taken into account.
 3. Alternatives that would have less adverse effects on these populations have severe adverse social, economic, environmental or human health impacts.
 4. Alternatives that would have less adverse effects on these populations involve increased costs of an extraordinary magnitude.

Methodology

The methodology employed in this section conforms to DOT and FHWA environmental justice policies in analyzing the LA 3234 Extension project in relation to potential disproportionate adverse impact to the minority and low-income population in the study area ("low income" is defined as a population whose median household income is at or below the Department of Health and Human Service poverty guidelines).

As noted previously in the section on Socio-Economic Data, the LA 3234 Extension project study area lies within five (5) census tracts in Tangipahoa Parish. The key demographic elements measured in relation to environmental justice are race and poverty status.

This analysis examines key demographic indicators for race and poverty status in the project study area to ascertain if the proposed project raises any issues relative to environmental justice as follows:

- Race
- Educational attainment
- Median household income
- Households with cash public assistance
- Households with food stamp / Supplemental Nutrition Assistance Program (SNAP)

Findings

Table IV-2 looks at percentages of the racial groups by census tract in the project study area. The data on race indicate no concentrations of minority groups in the project study area. The overall project study area contains a variety of races, primarily White with percentages for Black or African American and Hispanic or Latino similar to state levels, although Census Tracts 9540.01 and 9544 have higher black percentages than the state, and Census Tract 9542 has a higher Hispanic percentage than the state.

Table IV-2 - Race and Population in the Project Study Area³

	Total:	White alone	Hispanic or Latino	Black or African American alone	American Indian and Alaska Native alone	Asian alone	Native Hawaiian and Other Pacific Islander alone	Some other race alone	Two or more races:
Louisiana	4,663,461	2,909,599	231,708 ⁴	1,500,648	27,094	80,980	1,401	56,216	87,523
% of state	100%	62.4%	5.0%	32.2%	0.6%	1.7%	0.0%	1.2%	1.9%
Census Tract 9540.01	4,366	2,220	80	1,807	16	122	0	7	194
% of Tract	100%	50.8%	1.8%	41.4%	0.4%	2.8%	0.0%	0.2%	4.4%
Census Tract 9540.02	5,960	4,336	162	1,562	0	0	0	0	62
% of Tract	100%	72.8%	2.7%	26.2%	0.0%	0.0%	0.0%	0.0%	1.0%
Census Tract 9542	5,021	3,504	338	1,257	6	129	0	7	118
% of Tract	100%	69.8%	6.7%	25.0%	0.1%	2.6%	0.0%	0.1%	2.4%
Census Tract 9544	3,722	1,416	133	2,173	22	6	0	0	105
% of Tract	100%	38.0%	3.6%	58.4%	0.6%	0.2%	0.0%	0.0%	2.8%
Census Tract 9545.02	7,618	5,384	424	2,092	0	0	0	57	85
% of Tract	100%	70.7%	5.6%	27.5%	0.0%	0.0%	0.0%	0.7%	1.1%
All 5 Census Tracts (Study Area)	26,687	16,860	1,137	8,891	44	257	0	71	564
% of Study Area	100%	63.2%	4.3%	33.3%	0.2%	1.0%	0.0%	0.3%	2.1%

³ <https://factfinder.census.gov>, 2013-2017 American Community Survey 5-Year Estimates

⁴ The Hispanic or Latino category consists of any race and is not included in the total population for Louisiana.

Table IV-3 examines educational attainment in the project study area by census tract in the project study area and Louisiana. The percentage of high school graduates or higher in the project study area is in line with state totals, as is the percentage of the population with a bachelor degree or higher.

Table IV-3 - Educational Attainment in the Project Study Area

	Louisiana	Census Tract 9540.01	Census Tract 9540.02	Census Tract 9542	Census Tract 9544	Census Tract 9545.02	All Census Tracts (Study Area)
Total:	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Less than 9th grade	5.4%	5.9%	2.2%	5.0%	7.7%	7.9%	5.7%
9th to 12th grade, no diploma	10.3%	9.4%	11.8%	8.9%	15.0%	8.8%	10.6%
High School Graduate (incl. equivalency)	33.8%	32.6%	33.7%	18.7%	23.6%	30.2%	29.1%
Some college, no degree	21.3%	18.3%	22.6%	21.0%	21.1%	23.3%	21.8%
Associate's degree	5.8%	4.2%	7.9%	5.0%	7.4%	5.8%	6.3%
Bachelor's degree	15.3%	21.8%	13.3%	26.4%	17.3%	17.6%	18.1%
Graduate, Professional, or Doctorate degree	8.1%	7.8%	8.6%	15.0%	7.9%	6.5%	8.5%
Percent high school graduate or higher:	84.3%	84.7%	86.1%	86.1%	77.3%	83.3%	83.7%
Percent bachelors degree or higher:	23.4%	29.6%	21.8%	41.4%	25.2%	24.1%	26.6%

Table IV-4 analyzes the median household income and the number of households receiving cash public assistance and food stamp/SNAP benefits by census tract. The average median household income in the project study area overall and within each of the five census tracts is lower than state levels. 21.3% of the households in the project study area received cash assistance or Food Stamps/SNAP area over the last twelve months, more than the state percentage of 16.6%. Finally, the percentage of families in the project study area with income below the poverty level is 22.2%, more than the state average.

Table IV-4 - Income and Poverty in the Project Study Area

	Louisiana Total	Census Tract 9540.01	Census Tract 9540.02	Census Tract 9542	Census Tract 9544	Census Tract 9545.02	All Census Tracts (Study Area)
Number of Households	1,737,645	1,413	2,279	1,187	1,416	2,743	9,038
Median Household Income	\$46,710	\$34,742	\$43,398	\$33,750	\$39,797	\$42,303	\$38,798
Households With Cash Public Assistance or Food Stamps/SNAP	288,278 (16.6%)	415 (29.4%)	526 (23.1%)	242 (20.4%)	386 (27.3%)	357 (13.0%)	1926 (21.3%)
Percentage of Families with Income Below the Poverty Level	15.10%	30.6%	12.8%	29.2%	38.0%	15.1%	22.2%

In conclusion, key factors for race and educational attainment are in line with state levels, but income and poverty factors are slightly higher than they are for the state.

However, this difference does indicate a disproportionate potential impact of the proposed project on minority and low-income residents.

Following is a summary of the environmental justice analysis:

- Minority and ethnic populations generally mirror state levels and do not indicate large concentrations of such populations in the project study area.
- Educational attainment is similar to the state with the highest education achieved in the project study area at the high school level.
- Income and poverty in the project study area both vary slightly from state levels, with household income about 7% less than the state average, households with public assistance about 5% higher than the state average, and living below the poverty level at 7% more than the state average.

The residential portion of the project area is semi-rural in nature with much undeveloped vacant land, and low-density scattered residences. Consequently, adverse project impacts from the project alternatives are not anticipated to disproportionately impact minority or low-income populations in the project study area.

NEIGHBORHOOD AND COMMUNITY COHESION

The study area is a mix of low-density residential development, a small degree of commercial development along highways, and a developing industrial/warehouse area surrounding the Hammond Airport. The sparse development pattern for housing generally means that neighborhood and community cohesion in this area is more in terms of area-wide cohesion or sense of city or regional community, rather than on a strict “neighborhood” basis. .

No-Build Alternative

Neighborhood and community cohesion in the project study area will not be adversely impacted by the No-Build alternative.

Build Alternatives

Neighborhood and community cohesion in the project study area is defined by its low-intensity suburban and semi-rural character. The three build alternatives are not anticipated to adversely affect the neighborhood and community cohesion in the study area. All three alternatives would bisect the north/south residential MC Moore Road. However, the new LA 3234 extension should not serve as a barrier, as it will be either a 3 lane or 2 lane roadway, which can be crossed directly.

LAND USE AND ZONING

No-Build Alternative

The No-Build Alternative will not impact the land use and zoning in the project study area.

Build Alternatives

The Build Alternatives are not anticipated to adversely impact the land use and zoning in the project study area.

In the Hammond portion of the project area, the *Hammond Comprehensive Master Plan*⁵ is a guiding force covering land use, zoning, connectivity and future development in the project study area and beyond:

- “Ensure that future development preserves and enhances existing neighborhoods, encourages a high-quality mix of uses in a traditional neighborhood form; respects the natural environment and agricultural areas; and discourages sprawl development.
- Encourage sustainable design that enhances and expands the existing community character and identifies Hammond as a special place.
- Provide safe and convenient mobility and support a multi-modal transportation system that provides linkages to neighborhoods, schools and other community facilities and uses; at the same time the city will efficiently provide for and equitably fund quality infrastructure facilities.
- Identify and foster opportunities for expanded cooperation with the Parish, including intergovernmental and annexation agreements, to manage growth, promote economic development, create gateways that impart a positive image of the city, and form a rational city pattern.
- Provide community services and facilities that meet the physical, educational, economic, and recreational needs of all segments of Hammond’s community.”

In those portions of the project area that are in unincorporated Tangipahoa Parish, (which has no zoning), the enhanced access provided by a new facility may provide impetus to further development of vacant areas along the new LA 3234 corridor, both commercial uses and residential subdivisions. However, any such development in this area (and within the city of Hammond as well) would be tempered by three things: the fact that much of the surrounding land is in floodplain, the need for permitting of any development by the local government, and LADOTD’s management of access to the new extended state highway.

⁵ www.hammond.org/wp-content/uploads/2013/01/masterplan.pdf.

In terms of zoning, the corridor portions in Hammond are properly zoned for current development (residential on the west, industrial on the east) and this zoning is unlikely to change as a result of the new roadway.

ACCESS TO COMMUNITY FACILITIES & SERVICES

Community facilities and services define a community and further characterize its cohesion and sense of place. A vital factor in the utilization of these facilities and distribution of services is their access.

No-Build Alternative

While the No-Build alternative is not anticipated to adversely impact access to community facilities and services, conversely it will not contribute to enhancing service levels of the road network or improving through traffic to community facilities and services outside of the study area. The No-Build Alternative will not improve access to public facilities and services.

Build Alternatives

The development of any of the three Build Alternatives is expected to have a positive impact on access to community facilities and services. By improving local and regional access, residents and businesses will be better able to reach necessary facilities and services. Additionally, emergency vehicle access, including fire and police response and emergency medical service will be enhanced.

The Build Alternatives would also provide quicker and safer access to area amenities, such as parks, playgrounds, other recreation facilities and services, and community centers. Those amenities are vital to the quality of life a community needs to sustain itself.

IMPACTS TO PARKS AND RECREATION FACILITIES

No-Build Alternative

The No-Build Alternative is not anticipated to adversely impact parks and recreation facilities in the project study area.

Build Alternatives

The Build Alternatives are not anticipated to adversely impact parks and recreation facilities in the project study area. The project improvements will likely enhance access to parks and recreation facilities in the area.

HISTORIC / CULTURAL RESOURCES

No-Build Alternative

The No-Build Alternative would have no impact on the historic/cultural resources of the project area.

Build Alternatives

Archaeology

If Alternate A is selected, additional archaeological investigations will be necessary at two sites (JMIS Shop and Car Graveyard). If Alternate B is selected, additional archaeological investigations will be necessary at two sites (1880 House and Barn & Silo). If Alternate C is selected, additional archaeological investigations will be necessary at one site (1929 House).

Standing Structures

The Alack House (53-00168) is located adjacent to Alternate B. If Alternate B is chosen as the preferred alternative, the proposed project will have an adverse effect on the property, if it is determined eligible for listing on the NRHP.

VISUAL / AESTHETIC IMPACTS

No-Build Alternative

Under the No-Build Alternative, there will be little if any visual and aesthetic impacts related to the completion of some planned projects and projects under construction, as most of these are not in the vistas or sightlines of the area of primary impact. Private development is expected to continue, which would result in clearance of some forested areas for residential development, and construction of new buildings on land already cleared for commercial and industrial development.

Build Alternatives

The construction of any of the Build Alternatives would have a limited visual / aesthetic impact on the project area.

There should be limited visual impact for the western portion of the three Build Alternatives, as this area is mostly undeveloped and wooded and there are very few people who have seen that area.

Where the new roadway crosses existing roads or highways, some commercial buildings may be removed along with several residential buildings along the highway.

Alternates A and B also include widening of existing local roadways, and visual/aesthetic impacts along those streets would be minimal. The appearance of the corridor will be a bit wider and expansive, as trees and shrubbery near the current right-of-way may be removed to accommodate the widened highway right-of-way.

AIR QUALITY IMPACTS

This section summarizes the results of an analysis of the potential air quality effects of the project. The purpose of this analysis is to address the potential for the project to affect air quality standards including transportation conformity requirements.

National Ambient Air Quality Standards (NAAQS)

The United States Environmental Protection Agency (EPA) has established allowable concentrations and exposure limits called the National Ambient Air Quality Standards (NAAQS) for various “criteria” pollutants. These pollutants include carbon monoxide (CO), nitrogen oxides (NO_x), ozone (O₃), particulate matter (PM₁₀ and PM_{2.5}), sulfur oxides (SO_x), and lead (Pb).

In accordance with the Clean Air Act Amendments of 1990 (CAAA of 1990), EPA identified those areas that did not meet the NAAQS for the criteria pollutants and designated them as “nonattainment” areas. Once a nonattainment area meets the NAAQS, it is re-designated as a “maintenance” area.

Tangipahoa Parish is currently not a nonattainment or maintenance area for any criteria pollutant.

Transportation Conformity

Transportation conformity is a process required of Metropolitan Planning Organizations (MPOs) pursuant to the CAAA. CAAA require that transportation plans, programs, and projects in nonattainment or maintenance areas that are funded or approved by the Federal Highway Administration (FHWA) be in conformity with the State Implementation Plan (SIP), which represents the State’s plan to either achieve or maintain the NAAQS for a particular pollutant.

The proposed project is not located in a nonattainment or maintenance area, so conformity does not apply to this project.

Carbon Monoxide (CO)

Transportation projects have the potential to affect air quality by changing the number of vehicles at specific locations. Tailpipe emissions from vehicles could result in increases in ambient concentrations of carbon monoxide (CO) near the project.

Carbon monoxide (CO) is a colorless, odorless gas that interferes with the delivery of oxygen to a person's organs and tissues. The health effects of CO exposure depend on the duration and intensity of exposure as well as a person's health. CO concentrations are usually higher during the winter months because vehicles emit higher CO emissions in cold weather due to the characteristics of internal combustion engines.

The state of Louisiana is in attainment statewide for CO. Project CO concentrations are not anticipated to cause or contribute to an exceedance of the CO NAAQS. Therefore an air quality analysis is not required.

TRAFFIC NOISE AND IMPACTS

As part of this EA, a study was prepared in accordance with the FHWA noise regulations, *Procedures for Abatement of Highway Traffic and Construction Noise*, 23 CFR 772, and the LADOTD's *Highway Traffic Noise Policy*, revised in 2011. The noise analysis included the following tasks:

1. Identification of noise-sensitive areas (NSA) and associated receptors (discrete or representative locations in an NSA for the land uses listed in 23 CFR 772) within 500 feet of the project;
2. Determination of existing sound levels at selected receptors to characterize the existing noise environment in the project area;
3. Prediction of future sound levels with and without the project at the receptors;
4. Determination of impacted receptors;
5. Evaluation of noise abatement for impacted areas;
6. Discussion of construction noise; and
7. Information for local officials.

The full study can be found in Appendix C, *LA 3234 Extension from LA1065 to Hammond Airport, Tangipahoa Parish, Hammond, Louisiana DRAFT Traffic Noise And Air Quality Analysis Technical Report*.

Summary of Impacts

An impact assessment was completed for the Build and No-Build scenarios. As noted previously, a receptor is impacted in two ways:

1. The predicted, worst hour, design year one-hour equivalent sound level $Leq(h)$ approaches or exceeds the state's noise abatement criteria (NAC). LADOTD

defines “approach” as 1 A-weighted decibel (dBA) less than the NAC. These levels apply at areas of frequent human use.

2. The predicted, worst hour, design year Leq(h) exceeds the existing Leq(h) by 10 dBA or more.

As shown in **Table IV-5** below, there will be a total of 21, 39, and 14 impacted residential properties (Activity Category B) for Build Alternates A, B, and C, respectively.

Table IV-5 - Summary of Noise Impacts

Prediction Case	Range of Predicted Leq(h) (dBA)	Range of Increases over Existing Leq(h) (dB)	Impacts
Existing (2017)	44 - 67	N/A	N/A
Alternate A (2044)	45 - 70	Up to 20 dB	21 residences
Alternate B (2044)	45 – 70	Up to 21 dB	39 residences
Alternate C (2044)	45– 70	Up to 17 dB	14 residences
No Build Alternative (2044)	45 – 69	Up to 3 dB	5 residences

Alternate C has the fewest impacts because of the lower projected traffic volumes compared to the other alternatives. Alternate B has the most impacts because of its proximity to the residences along Top Hat Street, Pine Drive and St. Paul loop and its higher projected traffic volumes.

Noise Abatement Evaluation

In accordance with criteria in the LADOTD noise policy, noise abatement needs to be studied first for “feasibility” and, if feasible, for “reasonableness.” Noise barriers must be both feasible and reasonable for them to be deemed likely for construction.

Feasibility includes acoustical and engineering considerations. Acoustical feasibility means that a noise barrier will provide at least a 5 dBA reduction in the one-hour equivalent sound level for at least 75% of the first-row, impacted receptors. If a barrier cannot meet this criterion, abatement is considered to not be acoustically feasible. Additionally, the noise barrier should be feasible from an engineering perspective. Engineering feasibility takes into account topography, drainage, safety, barrier height, utilities, and access and maintenance needs (which may include right-of-way considerations). If a barrier poses engineering problems, it may be judged as not feasible even if it meets the acoustical feasibility criterion, and it will not be recommended for construction.

If feasible, then the barriers are assessed for reasonableness in accordance with the criteria in LADOTD's noise policy. All proposed noise abatement must meet the following three criteria to be considered reasonable by LADOTD. If any of the criteria is not met, noise abatement measures will not be constructed.

1. Noise Reduction Design Goal: At a minimum, at least one receptor must receive an 8 dBA reduction for the noise abatement system to be reasonable.
2. Cost-Effectiveness: If the estimated cost of constructing a noise barrier (including installation and additional necessary construction such as foundations or guardrails) divided by the number of benefited receptors (those who would receive a reduction of at least 5 dBA) is \$35,000 or less per benefited receptor, a barrier is considered to be cost-effective.
3. Consideration and Obtaining Views of Residents and Property Owners: The viewpoints of the affected property owners and residents are important. For those barriers found to be reasonable by the Cost-Effectiveness and Design Goal criteria above, viewpoints of the benefited receptors and affected property owners will be sought.

In general, noise abatement measures may include noise barriers, alteration of horizontal and vertical alignment, and traffic management measures (such as reducing speed limits or prohibition of heavy trucks). The latter two forms of abatement have already been considered during the planning phases for this project.

Noise barriers were determined to be the only available potential abatement measure to reduce noise levels for impacted receptors for this project. As stated earlier, barriers must pass acoustical feasibility and reasonableness tests. Acoustical feasibility means that any noise barrier will provide at least a 5 dBA reduction in traffic noise levels for 75% of the first-row impacted receptors.

Generally, noise barriers are not effective at reducing noise levels at residences when driveway access needs create gaps in the noise barrier. Similarly, noise barriers are not cost effective on a per benefited residence basis for isolated residences or low-density groupings of residences.

Noise barriers were analyzed as a means of reducing the design year noise levels for each area with impacted residences. **Table IV-6** on the following page lists the impacted areas and summarizes the results of the noise barrier analysis.

Barriers were considered for other impacted residences along the project alternatives but since the impacts were at isolated or low-density residential areas or along areas where driveway access is needed, a noise barrier would not be cost effective and thus those areas are not included.

Two noise barriers were found to be feasible and reasonable based on the noise barrier analysis. Both of the feasible and reasonable barriers (one for Alternate A and one for Alternate B) are adjacent to the east end of McCray Lane and have the same footprint.

Each is 400 feet long with heights ranging from 8-10 feet and will benefit 3 impacted residences. The estimated cost for both noise barriers, based on LADOTD's 2016 Noise Barrier Cost Table, is \$102,600.

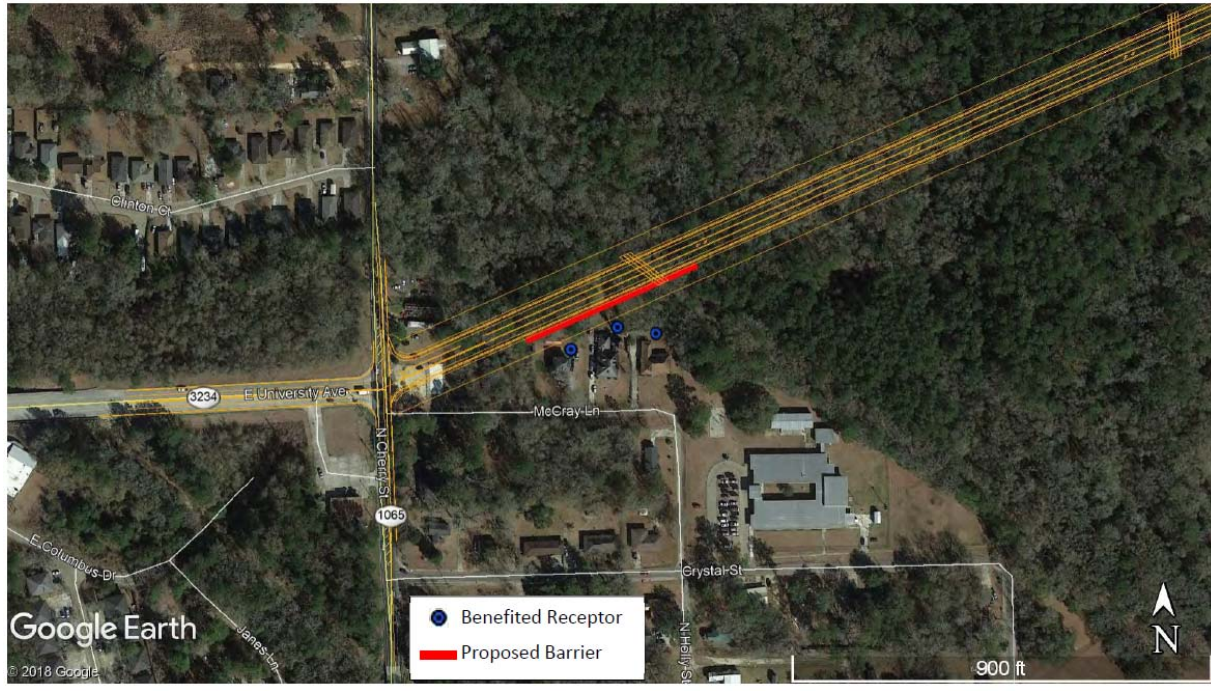
Table IV-6 - Results of Noise Barrier Analysis

Investigated Noise Barrier	Estimated Cost	# of Benefits	Cost per Benefit	Feasible?	Reasonable?
Alt A (EB) – McCray Lane	\$102,600	3	\$34,200.00	Yes	Yes
Alt A (EB) – Dominick Lane	\$468,630	3	\$156,210.00	Yes	No
Alt A (WB) – Pine Court and Morris Road	\$1,073,376	4	\$268,344.00	Yes	No
Alt A (WB) – MC Moore Road	\$588,510	6	\$98,085.00	Yes	No
Alt B (EB) – McCray Lane	\$102,600	3	\$34,200.00	Yes	Yes
Alt B (EB) – Top Hat Street and Pine Drive	\$860,250	23	\$37,402.17	Yes	No
Alt B (EB) – St Paul Loop	\$2,480,000	9	\$275,555.56	Yes	No
Alt B (WB) – MC Moore Road	\$612,212	3	\$204,070.67	No	No
Alt C (EB) – McCray Lane	\$118,800	3	\$39,600.00	Yes	No
Alt C (EB) – Pine Drive	\$443,128	3	\$147,709.33	Yes	No
Alt C (WB) – MC Moore Road	\$609,342	3	\$203,114.00	No	No

Statement of Likelihood

Preliminary indications are that noise barriers are reasonable and feasible at the McCray Avenue area for both Alternates A and B. **Figure IV-1** shows the location of this barrier on an aerial view (both alternates share the same barrier location, size and dimensions)

Figure IV-1 - Alternates A and B, McCray Lane EB Barrier and Benefits (Reasonable)



The final decision on the implementation of noise barriers will be made by LADOTD during project design. If during final design, conditions substantially change that impact the implementation of likely barriers, LADOTD will solicit the viewpoints of those affected as part of the reevaluation of reasonableness. Only barriers determined to be both reasonable and feasible will be constructed. Barriers that are no longer reasonable and feasible will be removed from the project.

Construction Noise

The construction of the project would result in temporary noise increases for the residences and noise-sensitive land uses along LA 3234. Any other noise-sensitive land uses that are located farther from the project area would likely experience little, if any, increase in noise levels because of the background noise of the LA 3234 traffic, traffic on other roads, and other community noise sources. The construction noise would be generated primarily from heavy equipment used in hauling materials and accomplishing the widening of the roadway.

The construction contractor has the responsibility for protection of the general public in all aspects of construction throughout the life of the project. All construction equipment will be required to comply with OSHA Regulations as they apply to the employees' safety, and in accordance with the LADOTD Standard Specifications. All construction equipment used in the construction phase of the project should be properly muffled and all motor panels should be shut during operation. In order to minimize the potential for impacts of construction noise on the local residents, the contractor should only operate, whenever possible, between the hours of 7:00 AM and 5:00 PM.

Coordination with Local Officials

LADOTD encourages local communities and developers to practice noise compatibility planning in order to avoid future noise impacts. Two guidance documents on noise compatible land use planning are available from FHWA.

Table IV-7 presents future predicted equivalent sound levels based on an assumed at-grade situation for areas along LA 3234 where vacant and possibly developable lands exist. Noise predictions were made at several distances from centerline of closest travel lane of LA 3234 for the Year 2044 PM peak hour for all three Alternatives. The results showed exterior residential activities would be considered to be impacted in terms of a level of 66 dBA or more out to a distance of roughly 75, 100, and 50 feet from edge of pavement of the nearest travel lane of LA 3234 for Alternatives A, B, and C, respectively. These values do not represent predicted levels at every location at a particular distance back from the roadway. Sound levels will vary with changes in terrain and other site conditions. This information is being included to make local officials and planners aware of anticipated highway noise levels so that future development will be compatible with these levels.

Table IV-7 - Year 2044 Predicted One-Hour Equivalent Sound Levels for Undeveloped Areas

<i>Distance*</i>	<i>L_{eq} (1h), dBA</i>		
	<i>Alternate A</i>	<i>Alternate B</i>	<i>Alternate C</i>
25 feet	71.3	71.8	69.3
50 feet	68.3	68.9	66.3
75 feet	66.5	67.0	64.4
100 feet	65.1	65.7	62.8
125 feet	63	63.5	60.6
150 feet	61.1	61.6	58.7

CONSTRUCTION PERIOD IMPACTS

During construction of the proposed LA 3234 Extension, constructing new roadway and structures along with widening existing roadways would result in various construction-related effects. The population that would be most affected includes local residents whose neighborhoods are located adjacent to or near the proposed improvements. Vehicular traffic along Pride Drive and Lear Drive, as well as along intersecting streets, would inevitably experience some delays and minor inconveniences as a result of construction.

No-Build Alternative

The No-Build Alternative includes no major construction improvements within the project corridor area. As such there should be no construction impacts within the study area under this alternative.

Build Alternatives

All of the Build Alternatives include construction of a new at-grade roadway, bridges, and subsurface drainage. Alternatives A and B also include widening of existing roadways. This construction will produce disturbances such as noise, vibration, excavation, debris and will require construction staging areas. Short-term construction traffic impacts will also be present under the build alternatives.

The construction impacts for the Build Alternatives are described for each type of impact below:

Construction Period Noise and Air Quality

As mentioned in the previous section, the construction of the Build Alternatives would result in temporary noise level increases within the study area. The noise would be generated primarily from heavy equipment used in hauling materials and building the roadway and bridges. Sensitive areas located close to the construction alignments may temporarily experience increased noise levels. However, there are currently no areas within the study area where quiet is of extraordinary significance, and therefore no such areas should be significantly impacted by construction noise.

The construction of the Build Alternatives could result in short-term air quality impacts, particularly related to particulate matter (dust) during project construction. To minimize potential air quality impacts, particularly related to control of particulate matter, the contractor shall comply with all applicable state, federal and local laws and regulations.

Construction Period Vibration

The proposed bridge structures will require pile driving. Pile driving will cause vibrations that may affect nearby structures, pavements and underground utilities. Peak particle velocities due to pile driving operations should be monitored with a seismograph at critical structures, pavements and utilities. The record of peak particle velocities will provide information in assessing potential damage and the need for changes in the pile driving operations.

Peak particle velocities of 0.25 in./sec, as measured by a seismograph, are generally regarded as the minimum vibration level uncomfortable to humans. In addition, sustained peak particle velocities of 0.25 in./sec may densify cohesionless fill materials. This densification may result in settlement and damage to structures, pavements or utilities founded in or over these types of materials. Peak particle velocities in excess of 0.5 in./sec, as measured at a structure, may induce damage to the structure.

Excavations, Fill Material, Debris and Spoil

Excavated material for roadway and foundation is not anticipated to require specialized disposal. A Phase I ESA was conducted for this study and a summary of this report is included as a part of this document. Fill material for the project is readily available locally. Construction debris from the project will require disposal. No anticipated construction debris is anticipated to require specialized disposal.

Construction Staging Areas

Construction staging areas will be needed for construction. Substantial amounts of vacant, privately-held land exist along the project route and will likely need to be leased as staging areas.

HAZARDOUS AND SOLID WASTE SITES

No-Build Alternative

The No-Build Alternative would have no impact on facilities/sites with recognized environmental conditions (REC).

Build Alternatives

One site is listed as having an environmental concerns. A permitted active recycling enterprise is located within the Subject Property of Alternative A. Although not a REC, the facility inventory of elemental mercury is growing due to a ban on exports. If the facility does not find a destination for this substance, the risk of a release will continue to grow in proportion to the amount in storage.

IMPACTS ON THE NATURAL ENVIRONMENT

VEGETATION

No-Build Alternative

No impacts to vegetation in the project area are foreseen under the No-Build Alternative.

Build Alternatives

All three alternatives will require clearing of all trees and vegetation within the project footprint, a right-of-way corridor which varies between a minimum of 80 feet to a maximum of 160 feet. Much of this is in undeveloped, heavily forested area.

The impacts for each Build Alternative on this forested area are as follows:

- Alternate A: 1.63 linear miles of forested area
- Alternate B: 1.62 linear miles of forested area
- Alternate C: 2.02 linear miles of forested area

On Alternates A and B, which also include widening of existing roadways, the removal of some trees and shrubbery along existing roadways may also be necessary.

Significant Trees

LADOTD EDSM No: 1.1.1.21, *Treatment of Significant Trees in DOTD Right-Of-Way* (9-03-2004) covers the treatment of significant trees by the Department within the highway right-of-way, zone of construction or operational influence.

For the purposes of this policy, a significant tree is a Live Oak, Red Oak, White Oak, Magnolia or Cypress that is considered aesthetically important, 18" or greater in diameter at breast height (4'-6" above the ground), and having a form that separates it from the surrounding vegetation or is considered historic. An historic tree is a tree that stands at a place where an event of historic significance occurred that had local, regional, or national importance. A tree may also be considered historic if it has taken on a legendary stature to the community; mentioned in literature or documents of historic value; considered unusual due to size, age or has landmark status. Significant trees must be in good health and not in a declining condition.

LADOTD's landscape architectural staff (or consultant designee) shall identify significant trees during the scoping and/or environmental phase. During roadway design, the Design Section shall indicate significant trees on the plans and implement a context sensitive design (i.e. preservation, specified limited impact, or special treatment) to accommodate these trees where practical.

A survey was taken of the trees along the proposed route which may fit the definition of significant trees, and which would be affected by the Build Alternatives. Almost all of the trees to be removed in the proposed new right-of-way did not fit the species criteria for significant trees; these included water oaks, pin oaks, pines, maples, pecans, Chinese Tallow trees, and other non-significant varieties. There are one or two Live Oaks on the Alack House site which lie within the proposed right-of-way for Alternative B. While these trees fit the definition for species and size, they do not necessarily have a form that separates them from the surrounding vegetation. Thus, they are not considered significant.

WILDLIFE

No-Build Alternative

Construction of the No-Build Alternative should not adversely affect the native wildlife types as they are abundant in number and are adaptable on an individual basis.

Build Alternatives

Construction of the proposed action should not adversely affect the native wildlife types as it occurs in rather developed area. The native wildlife types are abundant in number and are adaptable on an individual basis. Any wildlife present should be able to re-establish itself in new locations rather easily.

WETLANDS

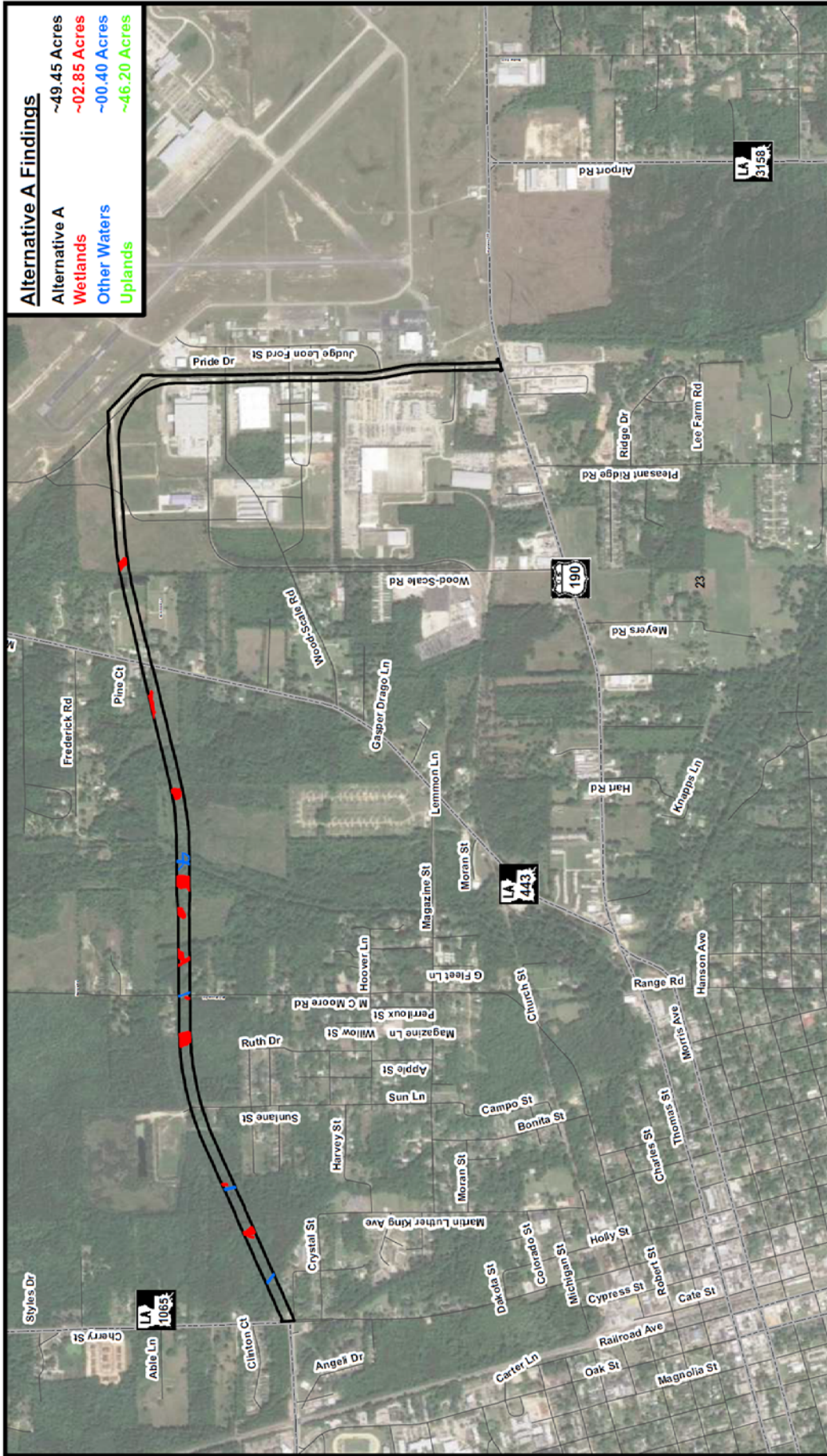
Wetland maps, including wetland and water body areas in acres for each of the three alternatives, are presented on aerial photo base maps in **Figures IV-2 through IV-4** on the following pages.

No-Build Alternative

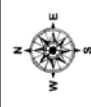
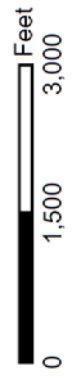
The No-Build Alternative would not impact the area's wetlands because there would be no acquisition of additional ROW and clearing for construction of road infrastructure and maintenance of the ROW. The existing growth rates in Tangipahoa Parish are expected to continue to diminish existing wetlands as a result of the development.

Build Alternatives

Construction of Alternate A would directly impact 2.85 acres of bottomland hardwood wetlands and .40 other waters of the US through the initial cutting of trees and grading of existing vegetated landscapes. Construction of Alternate B would directly impact 3.84 acres of bottomland hardwood wetlands and .74 other waters of the US. Construction of Alternate C would directly impact 4.41 acres of bottomland hardwood wetlands and .69 other waters of the US.



Alternative A Findings
 Alternative A ~49.45 Acres
 Wetlands ~02.85 Acres
 Other Waters ~00.40 Acres
 Uplands ~46.20 Acres



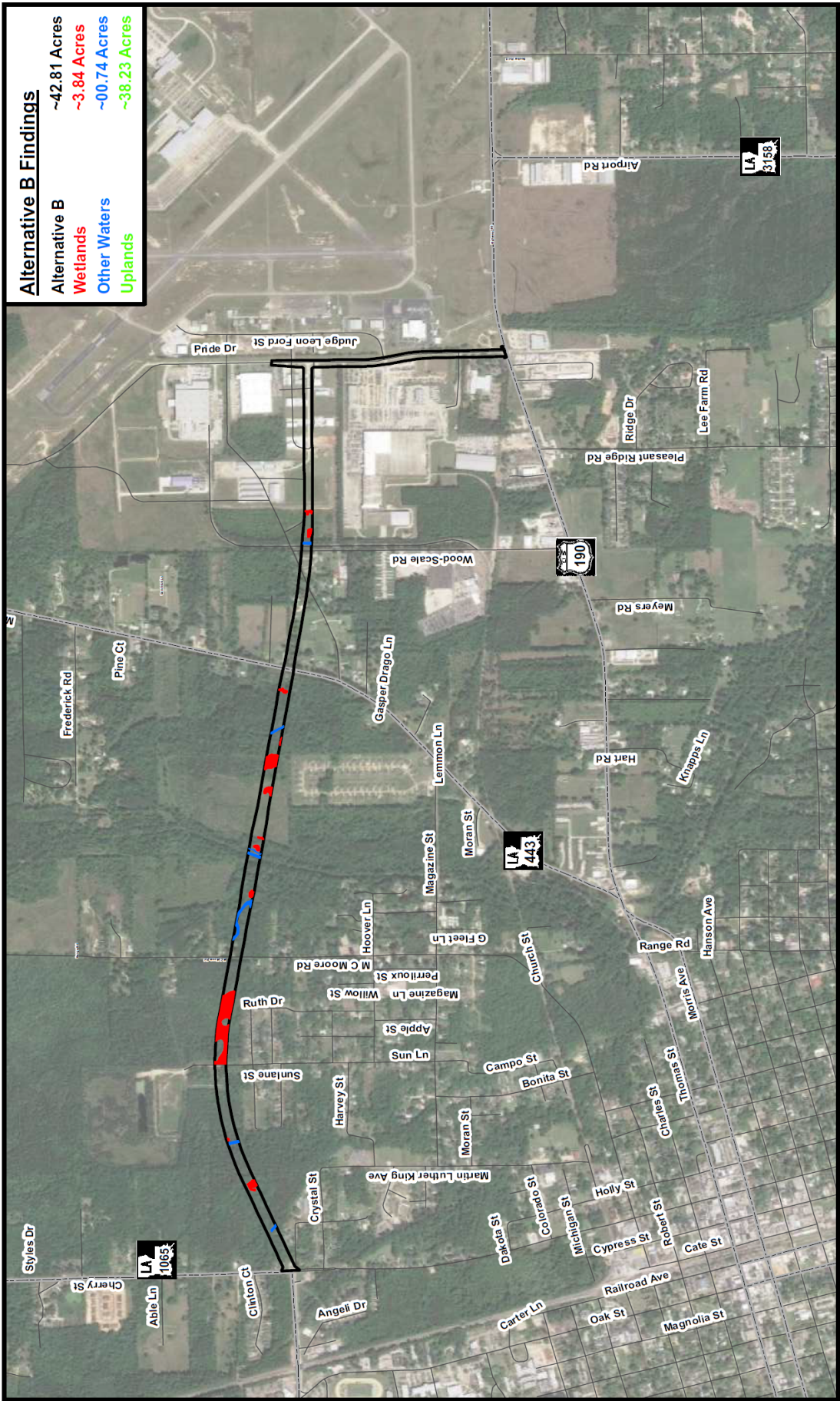
Legend:
 Alternative A
 Proposed Other Waters
 Proposed Wetlands
 Match Line
 Highway
 Roadway

Figure IV-2: Proposed Impacts with 2018 Aerial

LA-3234 Extension

Map prepared from public and proprietary spatial data. ELOS Environmental, LLC does not warrant its accuracy or completeness. This map should not be used to establish legal boundaries or specific locations.





Alternative B Findings
 Alternative B ~42.81 Acres
 Wetlands -3.84 Acres
 Other Waters -00.74 Acres
 Uplands -38.23 Acres



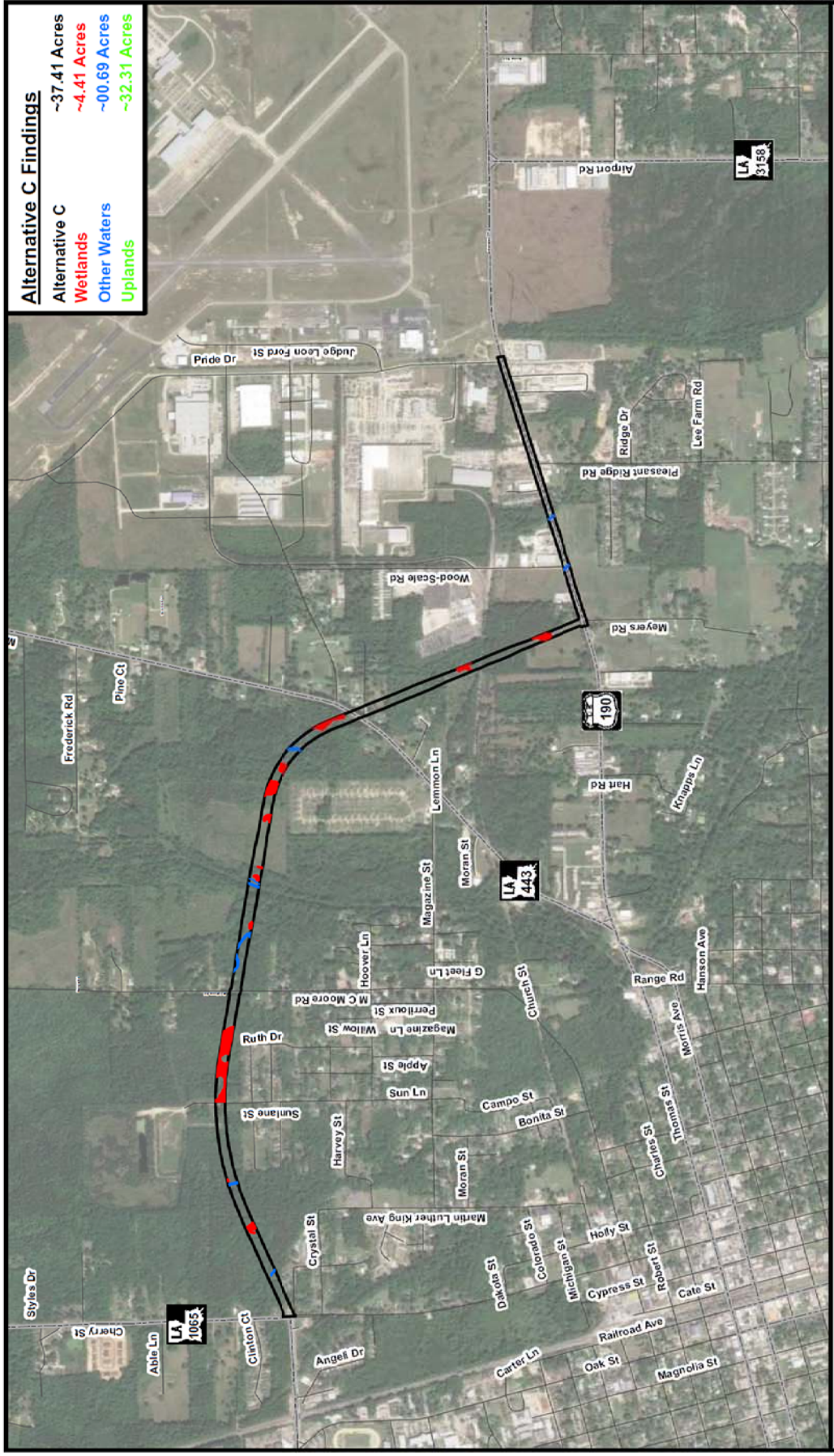
- Legend:**
- Alternative B
 - Proposed Other Waters
 - Proposed Wetlands
 - Match Line
 - Highway
 - Roadway

Figure IV-3: Proposed Impacts with 2018 Aerial

LA-3234 Extension

Map prepared from public and proprietary spatial data. ELOS Environmental, LLC does not warrant its accuracy or completeness. This map should not be used to establish legal boundaries or specific locations.





Alternative C Findings
 Alternative C ~37.41 Acres
 Wetlands ~4.41 Acres
 Other Waters ~00.69 Acres
 Uplands ~32.31 Acres



- Legend:**
- Alternative C
 - Proposed Other Waters
 - Proposed Wetlands
 - Match Line
 - Highway
 - Roadway

Figure IV-4: Proposed Impacts with 2018 Aerial

LA-3234 Extension

Map prepared from public and proprietary spatial data. ELOS Environmental, LLC does not warrant its accuracy or completeness. This map should not be used to establish legal boundaries or specific locations.



NATURAL AND SCENIC RIVERS

No-Build Alternative

No impacts to the area's natural or scenic rivers would occur under the No-Build Alternative.

Build Alternatives

No scenic rivers are present within a 1-mile radius of the project area. Therefore, the project will have no adverse impacts on natural and scenic rivers.

THREATENED AND ENDANGERED SPECIES

No-Build Alternative

There would be probably be no adverse impacts to threatened or endangered species under the No-Build Alternative because none was identified in the project area during the field investigations.

Build Alternatives

After careful review of the agency responses, as well as field investigation and research completed under the Biological Survey, no known federally protected T&E species will be impacted by the proposed project. Designated critical habitats for West Indian manatee and Atlantic sturgeon are outside the LA 3234 project area. No designated critical habitat has been identified by the US Fish and Wildlife Service (FWS) for red-cockaded woodpecker or for gopher tortoises and field surveys determined that the soils and vegetation in the study area are not suitable for these species.

Portions of the study area are wet forests and wooded habitats which may be suitable habitats for Southeastern Shrews. Due to its fossorial nature, few shrews have been observed alive. No Southeastern Shrews were observed during the field investigation, but forested wetlands and riparian corridors to be cleared should be surveyed by a qualified biologist prior to construction to determine if any are present.

Best management practices should be put into effect to prevent turbidity in the downstream region of the creeks in the study area.

Four mussel species of state concern—Rayed Creekshell, Mississippi Pigtoe, Southern Pocketbook, and Southern Rainbow—may be impacted during construction by the new bridge crossings of East Ponchatoula Creek. Prior to construction of the bridge, the water bottoms in these areas should be surveyed by a qualified biologist to determine if any of these species are present.

HYDROLOGY, FLOODPLAINS AND FLOODING

No-Build Alternative

The No-Build Alternative would not affect the current floodplain designations, nor would it likely affect the hydrology or flooding of the project area.

Build Alternatives

Similar to the No-Build Alternative, the hydrology in the project area is unlikely to be affected by the construction or operation of the improvements included in any of the Build Alternatives. The new bridge structure across E. Ponchatoula Creek and box culverts for drainage canals L-5 and L-5A are designed to accommodate a 100-year flood, and should allow sufficient pass-through of water so as not to collect debris that would result in damming.

As noted in the **Drainage** section of *Chapter II*, subsurface drainage will be included for all of the LA 3234 extension. Cross drains will be included in the subsurface drainage for the proposed LA 3234 extension.

WATER RESOURCES (SOLE SOURCE AQUIFERS)

No-Build Alternative

The No-Build Alternative would not adversely affect water quality or sole source aquifers.

Build Alternatives

None of the Build Alternatives would affect water quality in the project area. Correspondence from the US Environmental Protection Agency (EPA), Ground Water Underground Injection Control (UIC) section received in response to the *Solicitation of Views* stated that the project as proposed should not have an adverse effect on the quality of ground water underlying the project site.⁶

PRIME FARMLAND AND SOILS

No-Build Alternative

There would be no impacts to study area soils or geology if the No-Build Alternative is selected. No mitigation would be proposed or required with this alternative.

⁶ S.O.V. response from Omar Martinez, USEPA, 3-20-2018

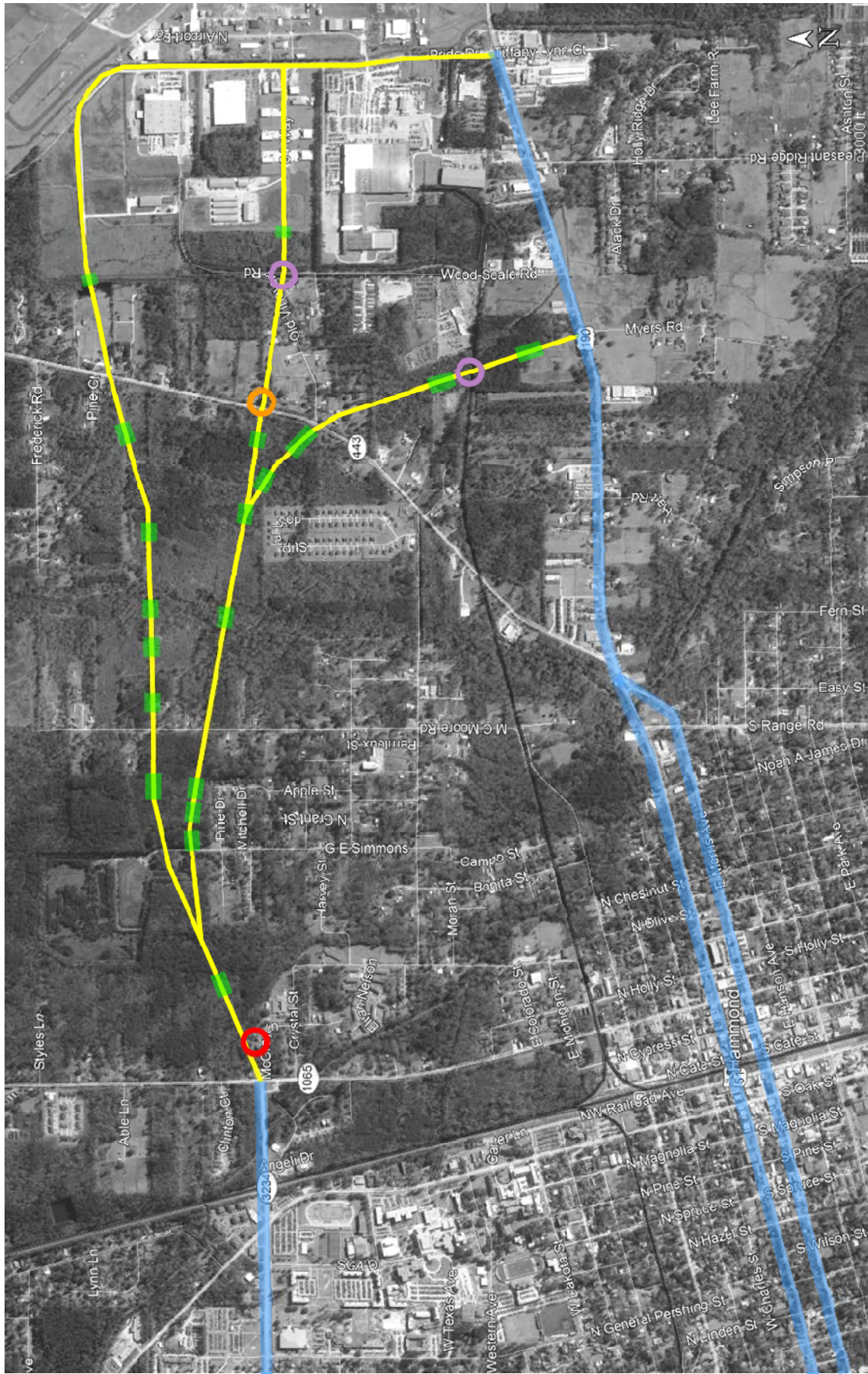
Build Alternatives

The construction areas in the project study corridor have been designated as being within urban areas by the National Resources Conservation Service, and are therefore exempt from the rules and regulations of the Farmland Protection Policy Act. The USDA in an SOV response stated that they do not predict impacts to NRCS work in the vicinity.⁷

CONSTRAINTS/POTENTIAL IMPACTS MAP

A constraints/potential impacts map of all major projected impacts projected onto an aerial view of the project area and the three alternative routes is presented on the following page as **Figure IV-5**.

⁷ S.O.V. response from Kevin Norton, USDA State conservationist, 1-5-2018



**Figure IV-5
Constraints/Potential Impacts Map**

- Alternative Routes
- Rail Impacts
- Wetland Impacts
- Noise Impacts
- Traffic Impacts
- Historic/Cultural Resource Impacts

COMPARATIVE ANALYSIS OF THE ALTERNATIVES

EVALUATION MEASURES

Aspects of the stated purpose and need for of the project identified in *Chapter I* are used as the first two evaluation measures or criteria to assess the effectiveness of the alternatives considered (the No-Build Alternative and the Build Alternatives) in addressing the purpose and need for the project. Additionally, the comparative impacts of each alternative are also used to evaluate from among the alternatives.

Evaluation Measure 1: Improving east-west connectivity and access in the Hammond, LA area.

Each of the three Build Alternatives would improve east-west connectivity, while the No-Build Alternative would not. As was illustrated in the Purpose and Need portion of Chapter I and in the traffic impact section of this Chapter, the alternatives would all improve east-west connectivity through Hammond by extending LA 3234 (East University Avenue) from its current terminus at LA 1065 (N. Cherry Street) to Hammond Northshore Regional Airport, thus providing a new direct link for truck and standard vehicular traffic to transit between the Airport area and Interstate I-55.

Evaluation Measure 2: Enhance alternative transportation methods (pedestrian and bicycle) by including installation of a complete streets cross-section.

Each of the three Build Alternatives would enhance alternative transportation methods (pedestrian and bicycle) by including installation of a complete streets cross-section, while the No-Build Alternative would not. As noted earlier in this Chapter, the build alternatives for the LA 3234 Extension project corridor will have a positive impact on bicycle and pedestrian access, by including bicycle lanes and sidewalks in each direction. Pedestrians and bicycles alike will have a safe and complete route extending from US 190 on the west side of the airport to the intersection of N. Cherry Street and University Avenue. When planned sidewalk improvements west of US 51 are completed, pedestrians will essentially have a safe and complete route extending from US 190 west of the airport to the LA 3234/I-55 interchange.

Evaluation Measure 3: Other Comparative Impacts Relative To Each Alternative

Upon completion of the impact analyses, impacts of each of the alternatives can be compared to each other to judge relative impact. There are eight (8) categories which have some definitive impact differences between the No-Build Alternative and the three Build Alternatives:

1. Traffic
2. Truck Traffic
3. Rail Impacts
4. Relocations

5. Access to Community Facilities and Services
6. Historic/Cultural Resources
7. Noise Impacts
8. Wetlands

Each of these categories are described beginning below:

Traffic

Under the No-Build Alternative, vehicular traffic on LA 3234 is expected to grow tremendously, even without any improvements. Traffic along US 190 is expected to grow, but not to the same degree as on LA 3234.

Under the Build Alternatives, the LA 3234 extension would divert a substantial volume of traffic from US 190 through downtown. US 190 volumes west of the connection to the LA 3234 extension would decrease in comparison to the No-Build volumes. In the downtown areas of US 190, traffic volumes would be reduced close to what they are currently. Finally, traffic volumes along existing LA 3234 would increase over those projected for the No-Build Scenario, but this would be a small increase -- not at all as great as the increase noted between current level volumes and the No-Build Scenario.

Truck Traffic

Truck Traffic through downtown is projected to increase under the No-Build Alternative.

Under the Build Alternatives, truck traffic through downtown is expected to decrease in comparison to the No-Build scenario.

Rail Impacts

No impacts to rail are anticipated under the No-Build Alternative.

Alternate A would require no new rail crossing of the CN railroad spur, as it lies to the north of the spur, thus there would be no impacts. Alternates B and C would require new rail crossings of the active CN railroad spur. Any new rail crossing would need to be built to current standards with signage and signals. Build Alternates A, B and C would likely reduce the volume of vehicles crossing the CN mainline track at US 190 (and nearby crossing locations) while increasing the amount of railroad crossings at LA 3234.

Relocations

The No-Build Alternative would result in no relocations. In terms of the Build Alternatives, Alternate A would result 5 residential, 2 business/ landlord, and 4 personal property-only relocations; Alternate B would result in 4 residential, 2 business/landlord,

and 4 personal property-only relocations; and Alternate C would result in 2 residential, 1 business/landlord, and 1 personal property-only relocations.

Access to Community Facilities & Services

The No-Build Alternative will not improve access to public facilities and services, while the development of any of the three Build Alternatives is expected to have a positive impact on access to community facilities and services. By improving local and regional connectivity and access, residents and people utilizing businesses will be better able to reach necessary facilities and services. Additionally, emergency vehicle access will be enhanced.

Historic/Cultural Resources

While the No-Build Alternative would have no impact on historic/cultural resources, each of the Build Alternatives could have some impacts. If Alternate A is selected, additional archaeological investigations will be necessary at two sites (JMIS Shop and Car Graveyard). If Alternate B is selected, additional archaeological investigations will be necessary at two sites (the 1880 House and the Barn & Silo), and the Alack House, recommended as NRHP eligible and adjacent to Alternate B, would be adversely affected. If Alternate C is selected, additional archaeological investigations will be necessary at one site (1929 House).

Noise Impacts

The noise impacts of the Build Alternatives did result in noise barrier options that passed both the tests of acoustic feasibility and reasonableness. These were under Alternates A and B. All alternatives did have a number of residences that are projected to be impacted by noise under future conditions. Only 5 were projected to be impacted under the No-Build Alternative, while the number of projected residences with impacts under Alternate A was 21 residences, Alternate B was 39 residences, and Alternate C was 14 residences.

Wetlands

The Wetland Delineation completed as part of the impact analysis provides qualitative figures for projected wetlands impacted (in terms of acreage). The No-Build Alternative would affect no wetlands. Construction of Alternate A would directly impact 2.85 acres of bottomland hardwood wetlands and .40 other waters of the US through the initial cutting of trees and grading of existing vegetated landscapes. Construction of Alternate B would directly impact 3.84 acres of bottomland hardwood wetlands and .74 other waters of the US. Construction of Alternate C would directly impact 4.41 acres of bottomland hardwood wetlands and .69 other waters of the US.

Summary of Analysis

Table IV-8 below presents a summary matrix of comparative analysis of each alternative.

**TABLE IV-8
SUMMARY MATRIX OF COMPARATIVE ANALYSIS OF EACH ALTERNATIVE**

Impact Category	No-Build Alternative	Alternate A	Alternate B	Alternate C
Conceptual Project Cost	N/A	\$47,737,854	\$48,175,453	\$31,960,415
Improve Connectivity	Will not improve;	Will improve,	Will improve,	Will improve,
Enhance alternative transportation methods (pedestrian and bicycle)	Does not enhance	New bicycle lanes and sidewalks in each direction.	New bicycle lanes and sidewalks in each direction.	New bicycle lanes and sidewalks in each direction.
Traffic Impacts	<ul style="list-style-type: none"> Substantial increase in traffic on LA 3234, Noticeable increase in traffic on US 190 	<ul style="list-style-type: none"> Substantial increase in traffic on LA 3234, Small increase in traffic on US 190 	<ul style="list-style-type: none"> Substantial increase in traffic on LA 3234, Small increase in traffic on US 190 	<ul style="list-style-type: none"> Substantial increase in traffic on LA 3234 Small increase in traffic on US 190
Truck Traffic	Increase in truck traffic through downtown Hammond	Comparative decrease in truck traffic through downtown Hammond	Comparative decrease in truck traffic through downtown Hammond	Comparative decrease in truck traffic through downtown Hammond
Rail Impacts	No Impact	No Impact	Would require a new rail crossing	Would require a new rail crossing
Relocations	No Impact	5 residential, 2 business/ landlord, 4 personal property-only	4 residential, 2 business/ landlord, 4 personal property-only	2 residential, 1 business/ landlord, 1 personal property-only
Access to Community Facilities and Services	Does not improve	Improves local and regional access; emergency vehicle access enhanced.	Improves local and regional access; emergency vehicle access enhanced.	Improves local and regional access; emergency vehicle access enhanced.
Historic/Cultural Resources	No impact	Additional archaeological investigations at two sites	Adverse Impacts to Alack House; additional archaeological investigations at two sites	Additional archaeological investigations at one site
Noise Impacts	5 residences impacted	21 residences impacted; feasible & reasonable barrier recommended in one location	39 residences impacted; feasible & reasonable barrier recommended in one location	14 residences impacted
Wetlands	No Impact	Would directly impact 2.85 acres of bottomland hardwood wetlands and .40 acres of other waters of the US	Would directly impact 3.84 acres of bottomland hardwood wetlands and .74 acres of other waters of the US	Would directly impact 4.41 acres of bottomland hardwood wetlands and .69 acres of other waters of the US

More Desirable

Less Desirable

IDENTIFICATION OF THE PREFERRED ALTERNATIVE

In looking at the Comparative Analysis, it is evident that the No-Build Alternative does not meet either of the first two evaluation measures based on the Purpose and Need for the project (improve connectivity and enhancement of alternative transportation methods). As such, the Preferred Alternative would be identified from amongst the three Build Alternatives.

There are eight other categories to look at in comparative impacts. Of these seven, 3 categories have the same impacts between Alternates A, B and C (traffic impacts, truck traffic impacts, and access to community facilities and services). Of the remaining categories, Alternative B has the most impacts in term of historical cultural resources (adversely impacting the Alack House). Alternate C fares slightly better than A and B in terms of relocation impacts. Alternate B has the most residential noise impacts by almost double the second highest alternate (A), while Alternate A has less wetlands impacts than the other two, and has no rail impacts.

While the three Build Alternatives all meet the purpose and need of the project and have similar impacts, Alternative A would appear to have an edge in having the least impact, and there appears to be a clear consensus shown by elected officials, agency officials, stakeholders and the public that Alternate A was preferred. **Therefore, Alternate A is identified as the Preferred Alternative.**

SELECTED ALTERNATIVE

Following public and agency review of the draft EA document, the FHWA has determined that Alternate A (the Preferred Alternative) will not have any significant impact on the human environment, and was fully analyzed in the Environmental Assessment (EA), which has been independently evaluated by the FHWA and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed improvements and appropriate mitigation measures. As such, it is further identified as the **Selected Alternative**.

CHAPTER V

PUBLIC PARTICIPATION, AGENCY COMMENTS AND COORDINATION

This chapter describes the public participation process for the project, including documentation of public meetings, public hearings, and coordination efforts associated with the development of the project. These efforts included meetings with the LADOTD, FHWA, other agencies and elected officials and a *Solicitation of Views* (SOV) requesting written comments on the project.

All SOV responses are in the Appendix of this document, and a transcript of the public meeting (including public meeting summary, written transcripts, sign-in sheets and handouts from the public meetings, and all written comments received from citizens and interested parties) was distributed on June 19, 2019 and be found at the Louisiana State Library in Baton Rouge, the Tangipahoa Parish Library in Hammond, and the LADOTD district 062 office at 685 N Morrison Blvd., Hammond, LA.

PUBLIC PARTICIPATION

PUBLIC INFORMATIONAL MEETING

An informational public meeting was held on March 12, 2019 to familiarize area residents with the project and to obtain their input. The meeting was held in the banquet hall of the Southeastern Louisiana University Alumni Center on W. University Avenue (LA 3234) in Hammond, LA, just a short distance from the northeastern end of the project corridor.

The meeting was advertised in the February 28 and March 7 editions of the *Hammond Sunday Star*. Notice was also sent to local radio and television stations. The Star did a story on the public meeting which was the front page item on the following day's edition. Ninety-two (92) persons signed in for the public meeting, including 64 members of the general public, 3 elected officials and 25 Agency/Personnel.

The meeting was held in an "open house" format, with the public free to show up at any time during the meeting session. Maps were present just past the sign in table showing the study area and all three build alternatives. The meeting room featured display stations for engineering drawings, one for each alternative. Each was manned by consultant staff that was available to answer questions. The stations had a display of the full project alignments at 1"= 200' scale on an easel, and 24" x 36" blow-ups of the report document's 11" x 17" plan view/profile, and typical section sheets (at 1"=100' scale). At another station, a transcriptionist was on hand to take any oral comments for the official record from attendees. The final station featured a PowerPoint presentation projected on a continuous loop on one side of the meeting room, and seating was

provided so that attendees could sit and watch the presentation at their leisure. The PowerPoint presentation provided an overview of the project.

Attendees were free to look at exhibits and ask questions of staff. Eight (8) persons gave verbal comments to the court reporter during the open house public meeting, and eight (8) comment forms were submitted either in person, by mail, or by e-mail following the public meeting.

Public Comments and Input

Staff members who manned the stations at the public meeting made note of informal comments and questions received from attendees. Comments and questions discussed with project staff included:

- Where is this in relation to my house/property? How will it affect my property?
- General support for use of complete streets section (bicycle lanes and sidewalks).
- General support for Alternate A compared to Alternates B and C.
- Concerns about traffic impacts to the current LA 3234
- Possibility of a route going even further north
- Preference for a 'southerly' connection (below US 190) instead of a 'northerly' one.

PUBLIC HEARING

(to be completed following the Public Hearing)

AGENCY COMMENTS ON THE DRAFT ENVIRONMENTAL ASSESSEMENT

(to be completed following the publication and review of the Draft EA)

AGENCY AND ELECTED OFFICIAL MEETINGS

Eight (8) such meetings were held on this project:

- The first of these was a Project Initiation Meeting held at the LADOTD Headquarters in Baton Rouge on January 9, 2017. In addition to discussing procedural, schedule, coordination and other matters, the meeting also included an opportunity to present and discuss the plans for Public Involvement, including the development of the Draft Agency and Public Involvement Coordination Plan.

The consultant team, RPC and LADOTD staff were in attendance at this meeting.

- On September 28, 2017, a brief meeting was held at LADOTD Headquarters with LADOTD staff and key members of the consultant team to discuss Traffic Analysis.
- On October 10, 2017 a follow-up Traffic Analysis meeting was held at LADOTD Headquarters. Consultant and LADOTD staff were present at this meeting.
- A final traffic meeting was held on February 20, 2018. Consultant and LADOTD staff were present at this meeting, along with RPC Executive Director Jeff Roesel. Consultant team, RPC and LADOTD staff were present at this meeting.
- A limited progress meeting was held on June 2018, at the LADOTD Headquarters to discuss issues with the Wetlands Study and environmental analysis as a whole.
- A full project progress meeting was held on February 6, 2019. The meetings purpose was to review the alternative plan view drawings, scheduling and coordination for a Public Meeting and Stakeholder Meeting, discussion of the recently finalized Traffic Study Report, and discussion as to the possibility of developing a NEPA-derived alternative. The Public Meeting was agreed to be scheduled for Tuesday March 12th (one week after Mardi Gras), and a Stakeholder Meeting would be scheduled earlier, on February 20, 2019. It was also agreed that further discussion of any NEPA-derived alternative would best be held after the two meetings, at the next progress meeting probably in late March. Consultant and LADOTD staff were present at this meeting.
- A Stakeholder Meeting was held at the City of Hammond Council Chambers on February 20, 2018. In attendance were local, state and parish elected officials, agency officials (RPC, CN Railroad, Hammond Airport, Southeast Louisiana University) as well as consultant staff and LADOTD and FHWA representatives. After providing the stakeholders with a brief project Recap (where we are in the process and how we got here), the meeting moved on to its primary purpose, to give the stakeholders an opportunity to view and comment on the alternative conceptual drawings-- plan views, typical sections, etc. – that would be shown to citizens in about three weeks at the Public Meeting. An open discussion followed. One of the key points was voiced by SLU staff, who voiced their concerns about the new extension worsening traffic on existing LA 3234 between LA 1065 and I-55. FHWA staff stated that traffic issues would need to be addressed and discussed in the EA document. Elected officials and SLU staff also agreed to help spread the word about the upcoming public meeting by putting it on their websites.
- A full project progress meeting was held on March 27, 2019. The meeting purpose was the review the results of the Stakeholder Meetings and Public Meeting, especially comments received. Of these, formal traffic impact comments from SLU and citizens were discussed. Other possible routes were discussed, including a variation on Alternate A that would veer further north but still connecting to LA 3234 and the dead end of Pride Drive, another going even further north and linking with Natalbany Road/LA 1064 with a new interchange at I-55, and the idea of a southerly route suggested by a few public meeting attendees. Staff and consultant team agreed that none of these would be appropriate for further study as a NEPA-derived

Alternative and as per Section 1.K of Scope of Work the consultant team would document, and proceed with completion of the EA document. The Project schedule was also discussed.

SOLICITATION OF VIEWS

Early in the planning stages of a transportation facility, views from federal, state and local agencies, organizations and individuals are solicited. The special expertise of these groups can often assist in the early identification of possible adverse economic, social, or environmental impacts or concerns.

A *Solicitation of Views* (SOV) package regarding the project was distributed by the Consultant team on December 28, 2017. The package included a map showing the general location of the project, and a preliminary project description.

Eleven (11) responses were received from the following agencies and organizations:

- US Department of Agriculture, National Resources Conservation Service
- US Environmental Protection Agency, Ground Water /UIC Section
- US Department of the Interior, Fish and Wildlife Service
- USACE, New Orleans District
- Louisiana Department of Agriculture and Forestry
- Louisiana Department of Environmental Quality
- Louisiana Department of Wildlife and Fisheries, Office of Wildlife
- Louisiana Department of Health and Hospitals, Office of Public Health
- Capitol Region Planning Commission
- Tangipahoa Parish
- City of Hammond

Most of the responses stated that the agencies had no comment, that the project would have no impact in regards to their particular jurisdiction, or that the agency had no objections to the project. Both local jurisdictions announced their support for the project.

The US Fish and Wildlife Service (USFWS) and Louisiana Department of Wildlife and Fisheries did state that the project area may be inhabited by the threatened Gopher Tortoise, and the USFWS also noted that the project area is in a Parish known to be inhabited by the endangered Red-Cockaded Woodpecker

A full copy of the *Solicitation of Views* responses is included in the Appendix of this document.

CHAPTER VI

THE PREFERRED ALTERNATIVE: IMPACT SUMMARY, MITIGATION MEASURES, COMMITMENTS AND PERMITS

The Direct Impacts to the transportation system and the human and natural environments as a result of the implementation of the Preferred Alternative are listed. For unavoidable adverse impacts, this chapter provides a discussion of mitigation measures recommended to reduce those adverse effects. The indirect and cumulative impacts of the Preferred Alternative are also examined in this chapter. Any commitments made to further the project are then described. The Chapter concludes with a section in which the permits required to complete the project are listed.

DIRECT IMPACTS NOT REQUIRING MITIGATION

As outlined in *Chapter IV*, implementation of the Preferred Alternative (Alternate A) - are projected to have some direct impacts within the project study area. Three (3) of these impact categories are considered non-adverse/beneficial, and require no mitigation measures. They include:

- Traffic Impacts (improve connectivity, lessen truck traffic through downtown Hammond)
- Impacts to Bicycle and Pedestrian Facilities
- Access to Community Facilities and Services

DIRECT IMPACTS REQUIRING MITIGATION

Five other impact area categories listed below are considered unavoidable, adverse social, economic, or natural environmental impacts that require some form of mitigation:

- Relocations
- Historic/Cultural Resources
- Construction Period Impacts
- Noise Impacts
- Wetlands

A discussion of the proposed mitigation measures for each is provided below:

Relocations

As the proposed Build Alternative is currently planned, the total number of relocations is 11 (five residential and 2 commercial/landlord, along with 4 personal property-only relocations). It is anticipated that many of the commercial tenants can be relocated to other locations in their immediate vicinity.

In developing the layouts for each alternative, minimizing the number of relocations was a key criterion. Consequently, there has been some impact mitigation occurring in the planning phase.

In regards to relocations occurring as a result of this project, the LADOTD is committed to following the federal rules and regulations in providing relocation assistance for all displaced households, including the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970* (Uniform Act) as amended.

Under these regulations, homeowners are eligible for the fair market value for any real property purchased, payment of moving expenses, payment of closing costs on any new residence purchased, and possibly a housing differential payment (which would cover the gap between the fair market value of their current home and the cost to purchase a comparable home). Tenants who are relocated may be eligible for either rental assistance payments or down payment assistance payments, and payment of moving expenses. When appropriate housing cannot be provided by using replacement housing payments, the Uniform Act provides for "housing of last resort." Housing of last resort may involve the use of replacement housing payments that exceed the Uniform Act maximum amounts. Housing of last resort may also involve the use of other methods of providing comparable decent, safe, and sanitary housing within a person's financial means.

Cultural Resource Impacts

Two sites were recommended for further inspection: the JMIS shop site located on the east side of Morris Rd. (LA 443) and the Car Graveyard site at 46243 Morris Rd, across the street from the JMIS Shop.

Construction Period Impacts

In terms of mitigation of construction period impacts (noise, air quality and vibration), several mitigation steps should be taken and proper procedures followed. To minimize noise impacts, all construction equipment used in the construction phase of the project shall be properly muffled and all motor panels should be shut during operation. In order to minimize the potential for impacts of construction noise on the local residents, the contractor shall operate, whenever possible, between the hours of 7:00 a.m. and 5:00 p.m. To minimize potential air quality impacts, particularly related to control of particulate matter, the contractor shall comply with all relevant state, federal and local laws and regulations. To minimize vibration impacts, pile driving operations should be monitored at critical structures, pavements and utilities during all pile driving operations.

To minimize impacts to drainage channels (such as Ponchatoula Creek), the following procedures should be followed:

- Channel work should be minimized and the rerouting of stream segments should be avoided. If channel work is necessary, precautions should be taken to avoid channel degrading from head-cutting. For example, grades at the culverts and

bridges should remain at their existing grade.

- Minimize impacts to the riparian corridor, especially forested areas. For new crossings, prior cleared areas in the floodplain should be used when possible.
- To reduce the width of impact through the floodplain/riparian area, the entire right-of-way through the riparian area of the floodplain should not be cleared. Only clear what is needed for access and construction. Avoid constructing feeder roads across floodplains.
- Minimize impacts to the creek banks (soil and vegetation). Stabilize and replant disturbed banks as soon as construction at that specific site is finished.
- Best Management Practices (BMPs) should be used to avoid and minimize water quality impacts and to minimize erosion of banks and bare soil and the siltation of streams. BMPs can be non-structural (procedural) or structural. An example of a procedural BMP is to ensure the stabilization and revegetation of bare soil as soon as possible following (or if possible, just prior to completion of) construction. Structural BMPs include use of such items as silt fencing, fiber rolls, sediment traps, check dams, and hay bales during construction.
- Wetlands or forested floodplains should not be used for staging or storage area.
- Contractors should be thoroughly briefed on all permit conditions. Copies of the issued permit should be posted at the project site during construction for easy reference to avoid misunderstanding and inadvertent violations.

Noise Impacts

The project's noise impacts analysis revealed that Alternate A would result in 21 residences being impacted. Of those 21, impacts to three (3) homes along McCray Lane would be feasibly and reasonably mitigated by construction of a noise barrier wall.

Wetlands Impacts

As fully described in Chapter IV, the proposed project's wetlands **impacts** are projected to consist of 2.85 acres of jurisdictional wetlands that lie within the proposed right-of-way. Onsite mitigation of wetland impacts could include clearing and maintenance of the minimum area of right-of-way. Installing adequate cross-drains underneath the facility will facilitate maintenance of current surface water movement. For unavoidable wetland impacts, compensatory mitigation is required. During the Section 404 permitting process, the USACE-New Orleans District will determine the appropriate form and amount of required mitigation. Methods of providing compensatory mitigation include Permittee-Responsible Mitigation through aquatic resource restoration, establishment, enhancement, and in certain circumstances, preservation activities; and third-party compensation through obtaining credits from an approved wetlands mitigation bank.

INDIRECT (SECONDARY) IMPACTS

The indirect or secondary impacts discussed in this section concern possible future conditions following construction of the LA 3234 Extension project.

As noted earlier in the document, population growth has increased in Tangipahoa Parish. But even without the extension of LA 3234, the trend of residential, commercial, and industrial development is expected to continue over the next twenty-five years. With improved connectivity and access in place, there is also an opportunity for further economic growth than that which is anticipated.

Some may see this economic growth as a positive trend, an economic boon to the area. Others see the growth as an encroachment of sprawl, and a degradation of the natural setting that makes this area of Tangipahoa Parish and the City of Hammond so appealing. Depending on point of view, growth can be a positive or negative impact.

Transportation is, of course, tied into this growth. Without a transportation network there can be no growth. But transportation in and of itself does not and cannot create the growth-- there are several other factors at work, such as desirability of location, presence of utilities and other infrastructure, issuance of development permits by appropriate agencies, etc. Transportation developments, such as widening of a highway, can only *affect* this growth.

Normally, the mitigation measures for handling growth-related impacts are already in the public's hands through the comprehensive planning process, and the public sector will lead the way in determining the limit and scope of mitigation. The most common public process mechanism to do so is via *planning* and *zoning*. The City of Hammond, which holds most of the land along the route, has zoning in place. Hammond also has the *Hammond Comprehensive Master Plan* in place to guide future growth.

CUMULATIVE IMPACTS

METHODOLOGY

The Code of Federal Regulations (Title 40, Section 1508.7), states that cumulative effects are “...*impacts which result from the incremental consequences of an action when added to other past and reasonably foreseeable future actions, ...*” The assessment will determine the impact(s) upon quality of life and environmental quality. Consideration of past, present, and foreseeable future actions in conjunction with anticipated effects of the Preferred Alternative is required. The point of the assessment is to determine the past impacts that have occurred, the present impact implications, and future impacts to the entire study area.

Past Actions

The methodology of assessing the cumulative impacts of the Preferred Alternative also considers the impacts from past projects and developments within the study area. Cumulative past impacts include the extension to the west of Pride Drive, the construction and dedication of Lear Drive, runway extension at the airport, improvements to the railroad crossings at LA 443 and Wood Scale Road, and the continued industrial development around the airport area.

Current Projects

The methodology of assessing the cumulative impacts of the Preferred Alternative also considers the impacts on other major current projects within the study area. However, there are currently no ongoing projects or developments within the study area.

Future Projects

The methodology of assessing the cumulative impacts of the Preferred Alternative also considers the impacts on future foreseeable projects or developments within the study area. Several roadway and highway projects programmed for development are included as part of the No-Build Alternative and described in detail in *Chapter II*. These include the installation of railroad signals and gates at several CN railroad crossings in Hammond, installation of signs, striping pavement markings and other safety improvements to local roads, examining and constructing improvements for bicycle routes in Hammond, and installation of pedestrian sidewalks on LA 3234 west of the Study Area.

CUMULATIVE IMPACTS EVALUATION AND SUMMARY

Transportation/Traffic Circulation

The cumulative impact of this project on the roadway system is that the proposed extension will serve as a supplement to that system. The project's cumulative impact on the surrounding routes is positive in that it would provide better connectivity within Hammond by creating a new route, and one that services bicyclist and pedestrians as well as motorized vehicles. The project should also lessen the amount of traffic (particularly truck traffic) through downtown Hammond compared to what it would be without the project.

Land Use Development/Redevelopment

Further land use development and redevelopment of uses could be a positive residual effect as a result of the Preferred Alternative. New land use opportunities could entail further residential, commercial, office, and industrial uses. It is anticipated that land use patterns would continue in a similar manner as past development due to zoning in the area. Substantial change is not anticipated to occur relative to the entire study area's land use character.

Summary

The overall cumulative impacts of the Preferred Alternative on past, current, and foreseeable future projects in the project area would be generally beneficial. The additional transportation utility of the Preferred Alternative would assist in and could encourage and increase new land use opportunities.

COMMITMENTS

Refer to *Summary of Mitigation, Commitments and Permits* at front of this report document.

PERMITS REQUIRED

- A Section 401 Permit (Water Quality Certification) will be required from the Louisiana Department of Environmental Quality.
- Because the project affects wetlands, a Section 404 Permit will be required from the USACE, New Orleans District.

CHAPTER VII

REFERENCES AND APPENDIX

The Environmental Assessment concludes with this chapter. The References section lists publications, websites and other sources of information used in the writing of this document. The Appendix lists the stand-alone documents and other data which were completed as part of this EA and are considered part of this EA. The Appendix also includes the entire *Solicitation of Views* packet and formal agency responses received during the Draft EA review process. Finally, the Appendix also includes the Design Report for Minimum Design Guidelines as required by LADOTD.

REFERENCES:

Highway Capacity Manual, 6th Edition, Chapter 16/Urban Street Facilities

<https://ecos.fws.gov/ipac/>

<https://factfinder.census.gov>, 2013-2017 American Community Survey 5-Year Estimates

https://msc.fema.gov/webapp/wcs/stores/servlet/info?storeId=10001&catalogId=1001&_a

http://www.fhwa.dot.gov/environment/environmental_justice/ej_at_dot/order_56102a/index_e...

<http://www.floods.org/index.asp?menuID+651&firstlevelmenuID=187&siteID=1.>

<https://www.google.com/maps/>

http://www.hammond.org/?page_id=1243

<http://www.hammond.org/wp-content/uploads/2013/01/masterplan.pdf.1.>

<http://www.maps/lsuagcenter.com/floodmaps/?FIPS=22105.>

http://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/louisiana/LA105/0/gsm.pdf

http://www.usace.army.mil/cw/cecwo/reg/cwa_guide/cwa_guide.htm

<http://www.wlf.louisiana.gov/wildlife/species-parish-list>

LADOTD Minimum Design Guidelines, Prepared by LADOTD, March 6, 2017

Metropolitan Transportation Plan 2048 South Tangipahoa Urbanized Area, FY-2019-2048, prepared by Regional Planning Commission, adopted December 2018
Roadway Design Procedures and Details Manual, LADOTD, March 2009

Stage 0 Study for LA 3234 Extension, prepared by Neel-Schaffer for LADOTD, December 15, 2011

APPENDIX:

The following are stand-alone documents which were completed as part of this EA and are considered as part of this EA. They are available for review from the LADOTD.

- A.** *Phase I Cultural Resources Survey Proposed Extension of LA 3234 from LA 1065 to the Hammond Airport, Tangipahoa Parish, Louisiana - Draft Report* Prepared by Coastal Environments, Inc. June 2018
- B.** *Biological Survey Report for SPN No. H008915, LA 3234 Extension from LA 1065 – Hammond Airport, Alternatives A, B, and C, Tangipahoa Parish, Louisiana* Prepared by ELOS Environmental, June 12, 2017
- C.** *LA 3234 Extension from LA1065 to Hammond Airport, Tangipahoa Parish, Hammond, Louisiana DRAFT Traffic Noise And Air Quality Analysis Technical Report.* Prepared by Bowlby and Associates, Inc. April 2019.
- D.** *Phase I Environmental Site Assessment for LA 3234 Extension from LA 1065 – Hammond Airport, State Project Number H008915, Tangipahoa Parish, LA.* Prepared by ELOS Environmental, July 2017
- E.** *Wetland Findings Report, SPN No. H008915, LA 3234 Extension from LA 1065 – Hammond Airport, Alternatives A, B, and C in Tangipahoa Parish, Louisiana* Prepared by ELOS Environmental, June 2017.
- F.** *Traffic Study Report, LA 3234 Extension from LA 1065 to Hammond Airport, Tangipahoa Parish,* Prepared by Urban Systems, Inc., Decemeber 2018.
- G.** *Conceptual Stage Relocation Plan, State Project Number H.008915, LA 3234 Extension from LA 1065 – Hammond Airport, Route LA 3234 Extension, Tangipahoa Parish.* Prepared by O.R. Colan Associates, March 28, 2019
- H.** *LA 3234 Extension from LA 1065 to Hammond Airport Stage 1 Environmental Assessment Public Meeting Report, March 12, 2019, State Project No. H.008915.* Prepared for the LADOTD by N-Y Associates, Inc., March 2019.

The Solicitation of Views (SOV packet example, letters, and SOV reponses) are presented beginning on the following page. Following the *Solicitation of Views* responses is the *Design Report for Minimum Design Guidelines* as required by LADOTD..

December 28, 2017

(addressee)
(street address)
(city, state ZIP)

LA 3234 Ext from LA 1065 to Hammond Airport
Stage 1 Environmental Assessment,
Tangipahoa Parish
State Project No. H.008915.2

RE: Solicitation of Views

Early in the planning stages of a transportation facility, views from federal, state and local agencies, organizations, and individuals are solicited. The special expertise of these groups can assist LADOTD with the early identification of possible adverse economic, social, or environmental effects or concerns. Your assistance in this regard will be appreciated.

Enclosed with this request are plan view maps of the conceptual project, along with a preliminary project description.

It is requested that you review the attached information and furnish the project consultant with your views and comments by February 28, 2018. Replies should be addressed to *LA 3234 Extension from LA 1065 to Hammond Airport*; c/o N-Y Associates, Inc. - attn; Bruce J. Richards, AICP; 2750 Lake Villa Drive; Metairie, Louisiana, 70002. Please refer to the State Project Number(s) in your reply. If you have any questions, please feel free to call the consultant project manager, Bruce Richards (504) 885-0500.

Sincerely,

Bruce J. Richards, AICP
Consultant Project Manager
N-Y Associates, Inc.

attachments

SOLICITATION OF VIEWS

PRELIMINARY PROJECT DATA

LA 3234 Extension from LA 1065 to Hammond Airport
Stage 1 Environmental Assessment,
Tangipahoa Parish
State Project No. H.008915.2
N-Y Job No. 16012.01

PROJECT DESCRIPTION AND LIMITS

N-Y Associates has been contracted by the Louisiana Department of Transportation and Development (LADOTD) as the prime contractor for the project engineering design and EA preparation. The LA 3234 Extension project was conceptualized by LADOTD to support intermodal connectivity at Hammond Northshore Regional Airport. The project will improve east-west connectivity through Hammond by extending LA 3234 (East University Avenue) from its current terminus at LA 1065 (North Cherry Street) to Hammond Northshore Regional Airport, thus providing a direct link for truck traffic to transit between the Airport and Interstate I-55. Logical termini for the project have been established by the environmental section of the Louisiana Department of Transportation and Development (LADOTD) and the Federal Highway Administration (FHWA) as the CN railroad on the west, Vineyard Road on the north, Industrial Park Road on the east, and an east-west straight line more-or-less aligned with Iowa Street, E. Park Avenue, and Gorman Road on the south. These termini provide a for an adequate study area for both primary impacts (those relating to the footprint of the project) and larger impacts that are less directly affected by project construction and more influenced by project implementation, inclusive of traffic impacts and community, social, and economic impacts.

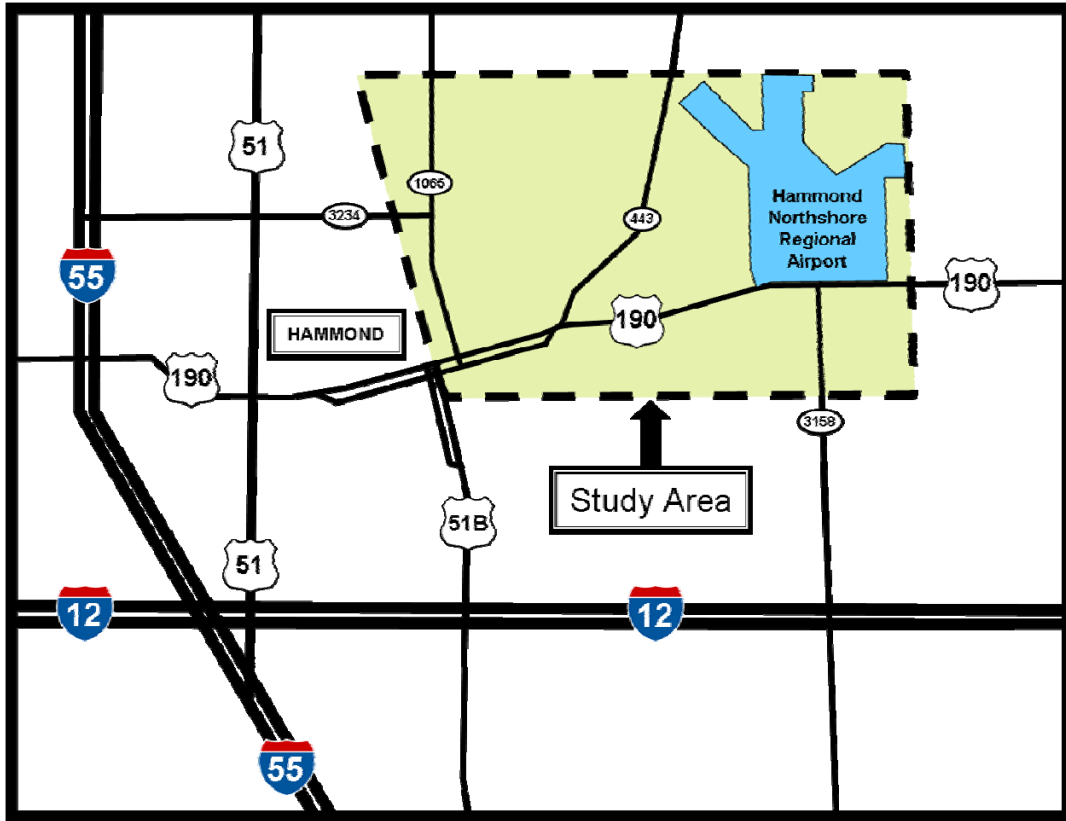
The project provides for the Extension of LA 3234 (East University Avenue) on new route alignment from its existing terminus at LA 1065 to Hammond Regional Airport. Additional right-of way will be acquired throughout the entire route, and both businesses and residences may be impacted by the requirements for additional right-of-way. The route transits though areas of 100-year floodplain and potential wetlands. Stream crossings will be provided at Drainage Canal L-5, Drainage Canal L-5A, and East Ponchatoula Creek.

Three alternatives are being carried forward from an earlier Stage 0 Feasibility completed in 2011. Each alternative includes a new bridge crossing, an upgrade of a portion of US 190 to four-lane capacity, and, at most, five roundabouts. Two of the alternatives include an at-grade railroad crossing. The initial three alternatives will be further developed and refined based on additional traffic analysis, engineering design, and environmental impact analysis.. Refinements and revisions to the conceptual plans will be considered in an effort to avoid or minimize environmental, social and economic impacts while improving traffic flow.

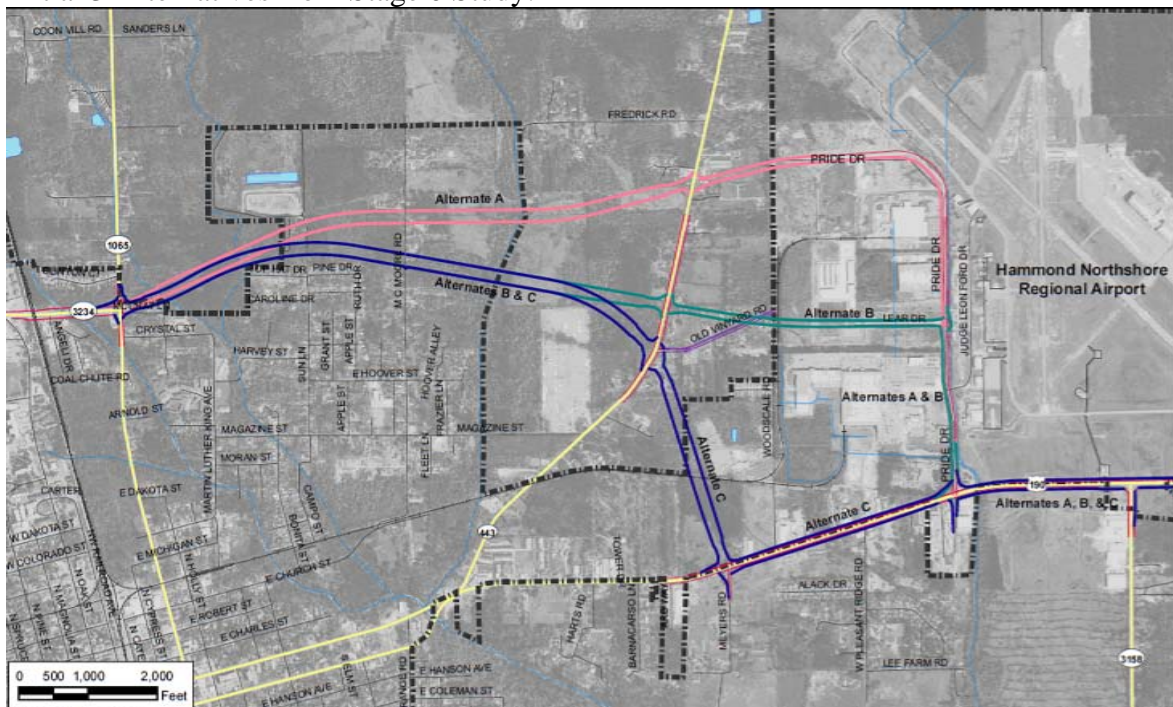
The proposed project is currently in the early planning/design stage.

PROJECT MAPS

Overall Project Study Area/Logical Termini:



Initial 3 Alternatives from Stage 0 Study:



LA 3234 EA SOV Mailing List

U.S. House of Representatives (District 1)
Honorable Steve Scalise
1514 Martens Drive, Suite 10
Hammond, LA 70401

United States Senate
Senator John Kennedy
6501 Coliseum Blvd
Suite 700A
Alexandria, LA 71303

United States Senate
Senator Bill Cassidy, MD
5555 Hilton Ave Suite 100
Baton Rouge, LA 70808

Coalition To Restore Coastal Louisiana
Kimberly Reyher, Exec. Dir.
6160 Perkins Rd Ste 225
Baton Rouge LA 70808

Department Of Agriculture & Forestry
Office Of Forestry
5825 Florida Blvd. Suite 6000

Department Of Agriculture & Forestry
Office Of Soil/Water Conservation
5825 Florida Blvd., Suite 7000
Baton Rouge La 70806

Department Of Culture, Recreation & Tourism
Division Of Archaeology
P O Box 44247
Baton Rouge La 70804

Department Of Culture Recreation & Tourism
Office Of State Parks
P O Box 44426
Baton Rouge LA 70804

Department Of Public Safety
Highway Safety Commission
P O Box 66336
Baton Rouge LA 70896

Dept Of Health And Hospitals
Attn: Chief Sanitarian Director
P O Box 629
Baton Rouge LA 70821-0629

Dept Of Wildlife & Fisheries
La. Natural Heritage Program
P O Box 98000
Baton Rouge LA 70898

Dept. Of Health And Hospitals
OPHEngineering Svcs (Bin 10)
Attn: Yuanda Zhu
628 North 4th Street
Baton Rouge LA 70802

Dept. Of Wildlife & Fisheries
La. Natural Heritage Program
P O Box 98000
Baton Rouge LA 70898

Dept. of Economic Development
Office Of Business Development
P O Box 94185
Baton Rouge LA 70804

Division Of Administration
Facility Planning & Control
P O Box 94095
Baton Rouge LA 70804

Division Of Administration
State Land Office
P O Box 44124
Baton Rouge La 70804

Environmental Protection Agency
Source Water Protection (6wq-S)
1445 Ross Ave
Dallas TX 75202-2733

Federal Transit Admin, Region VI
819 Taylor Street, Room 14A02
Fort Worth TX 76102

FEMA Region VV
FRC 800 North Loop 288
Denton TX 76209

La. Dept. Of Natural Resources
Office Of Conservation
P O Box 94275
Baton Rouge LA 70804-9275

La. Dept. Of Natural Resources
Office Of Mineral Resources
P O Box 2827
Baton Rouge LA 70821

LA Good Roads Association
P.O. Box 3713
Baton Rouge, LA 70821

Louisiana Forestry Association
Attn: Executive Director
P O Box 5067
Alexandria LA 71307

Louisiana State University
Sea Grant Legal Advisory Svc.
Attn: Director, Louisiana Sea Grant Law & Policy
227B Sea Grant Building
Baton Rouge LA 70803

National Park Service Southeast Region
Attn: Environmental Compliance Specialist
100 Alabama St, SW, 1924 Bldg.
Atlanta GA 30303

Natural Resources Conservation Svc.
Attn: State Conservationist
3737 Government St
Alexandria LA 71302

U.S. Geological Survey
3535 S Sherwood Forest Ste 120
Baton Rouge LA 70806
Capital Region Planning Commission
Post Office Box 3355
Baton Rouge LA 70821

Chamber Of Commerce
Hammond
P. O. Drawer 1458
Hammond LA 70404

Louisiana State Police Troop L
2600 North Causeway
Mandeville LA 70471

Tangipahoa Parish Council
P O Box 215
Amite LA 70422

Tangipahoa Parish Floodplain Administrator
P O Box 215
Amite, LA 70422

Tangipahoa Parish
Gravity Drainage Dist No 4
12504 La Rock Rd
Amite LA 70422

Tangipahoa Parish School Board
59656 Puleston Rd
Amite, LA 70422

Tangipahoa Parish Sheriff
313 East Oak St.
Amite, LA 70422

Tangipahoa - St Helena
Soil & Water Conservation District of LA
805 West Oak Street, Suite 1
Amite, LA 70422

Coalition to Restore Coastal Louisiana
Steven Peyronnin, Executive Director
6160 Perkins Rd. Suite 225
Baton Rouge, LA 70808

Federal Railroad Administration
4100 International Plaza,
Suite 450
Fort Worth, Texas 76109

Federal Aviation Administration
Southwest Region
10101 Hillwood Parkway
Fort Worth, TX 76177

Office of Indian Affairs
Director
P.O. Box 94004
Baton Rouge, LA 70804-9004

Inter-Tribal Council of Louisiana, INC
Director
991 Grand Cailou Rd
Houma, LA 70363

Senator Mack "Bodi" White
808 O'Neal Lane
Baton Rouge, LA 70816

Senator Jack Donahue
P.O. Box 896
Mandeville, LA 70470

Senator Beth Mizell
1051 Main Street
Franklinton, LA 70438

Representative Robby Carter
225 NW Central Avenue
Amite, LA 70422

Representative Stephen Pugh
114 NE Railroad Ave
Ponchatoula, LA 70454

Representative Christopher Broadwater
P.O. Box 157
Hammond, LA 70404

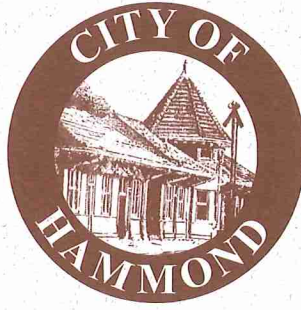
Tangipahoa Parish President
Robby Miller
P O Box 215
Amite La 70422

City of Hammond
Mayor Pete Panepinto
P.O. Box 2788
Hammond, LA 70404

Louisiana Byway Administrator
P.O. Box 94291
Baton Rouge, LA 70802

AARP
301 Main Street
Suite 1012
Baton Rouge, LA 70825

Office of the President
Southeastern Louisiana University
SLU Box 10784
Hammond, LA 70402



Pete Panepinto
Mayor

January 2, 2018

LA3234 Ext from LA1065 to Hammond Airport
c/o N-Y Associates, Inc.
Attn: Bruce J. Richards, AICP
2750 Lake Villa Drive
Metairie, LA 70002

Re: LA3234 Ext from LA1065 to Hammond Airport
Stage 1 Environmental Assessment
Tangipahoa Parish
SPN: H.008915.2

Dear Mr. Richards:

The City of Hammond is in favor of the proposed extension of University Avenue (LA 3234) from Cherry Street (LA 1065) to the Hammond Northshore Regional Airport. I do not have concerns at this time with the information that has been provided in the Preliminary Project Description and Limits. As proposed, this new corridor will facilitate better east/west connectivity and will become an exciting economic development opportunity for Hammond. I look forward to your findings during this environmental assessment to determine the best way the project can proceed to the next stage.

Sincerely,

Pete Panepinto
Mayor, City of Hammond

John Bel Edwards
GOVERNOR



Rebekah E. Gee MD, MPH
SECRETARY

State of Louisiana
Louisiana Department of Health
Office of Public Health

January 5, 2018

N-Y Associates, Inc
Attn: Bruce J. Richards, AICP
2750 Lake Villa Drive
Metairie, Louisiana 70002

**Re: Solicitation of Views
LA 3234 Ext from LA 1065 to Hammond Airport
Stage 1 Environmental Assessment
Tangipahoa Parish, Louisiana
State Project No. H.008915.2**

This office is in receipt of a Solicitation of Views regarding the above referenced project(s).

Based upon the information received from your office we have no objection to the referenced project(s) at this time. The applicant shall be aware of and comply with any and all applicable Louisiana State Sanitary Code regulations (LAC 51, as applicable). Furthermore, should additional project data become available to this office that in any way amend the information upon which this office's response has been based, we reserve the right of additional comments on the referenced project(s).

In the event of any future discovery of evidence of non-compliance with the Louisiana Administrative Code Title 51 (Public Health-Sanitary Code) and the Title 48 (Public Health-General) regulations or any applicable public health laws or statutes which may have escaped our awareness during the course of this cursory review, please be advised that this office's preliminary determination on this Solicitation of View of the project(s) shall not be construed as absolving the applicant of responsibility, if any, with respect to compliance with the Louisiana Administrative Code Title 51 (Public Health-Sanitary Code) and the Title 48 (Public Health-General) regulations or any other applicable public health laws or statutes.

Sincerely,

A handwritten signature in black ink, appearing to read "Yuanda Zhu".

Yuanda Zhu, P.G., Ph.D.
Louisiana Department of Health
Office of Public Health Engineering Services
Telephone: (225) 342-7432
Electronic mail: yuanda.zhu@la.gov



United States Department of Agriculture

January 5, 2018

Bruce J. Richards, AICP
Consultant Project Manager
N-Y Associates, Inc.
2750 Lake Villa Drive
Metairie, LA 70002

RE: LA 3234 Ext from LA 1065 to Hammond Airport
State 1 Environmental Assessment
Tangipahoa Parish
State Project NO. H.008915.2

Dear Mr. Richards:

I have reviewed the above referenced project for potential requirements of the Farmland Protection Policy Act (FPPA) and potential impact to Natural Resource Conservation Service projects in the immediate vicinity.

Projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a federal agency or with assistance from a federal agency. For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements can be forest land, pastureland, cropland, or other land, but not water or urban built-up land.

The project map and narrative submitted with your request indicates that the proposed construction areas are in urban areas and therefore are exempt from the rules and regulations of the Farmland Protection Policy Act (FPPA)—Subtitle I of Title XV, Section 1539-1549. Furthermore, we do not predict impacts to NRCS work in the vicinity.

For specific information about the soils found in the project area, please visit our Web Soil Survey at the following location: <http://websoilsurvey.nrcs.usda.gov/>

Please direct all future correspondence to me at the address shown below.

Respectfully,

Acting For:
Kevin D. Norton
State Conservationist

Attachment



Natural Resources Conservation Service
State Office
3737 Government Street
Alexandria, Louisiana 71302
Voice: (318) 473-7751 Fax: (844) 325-6947

Helping People Help the Land



POST OFFICE BOX 215
(985)748-3211
AMITE, LOUISIANA 70422
748-7576

OFFICE
FAX (985)

ROBBY MILLER
PARISH PRESIDENT

N-Y Associates, Inc.
2750 Lake Villa Drive
Metairie, La. 70002
Att: Bruce Richards

Jan. 11,2018

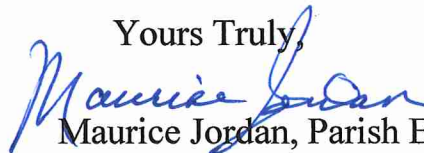
Re: La. 3234 Extension from La 1065 to Hammond Airport
Stage 1 Environmental Assessment
Tangipahoa Parish
State Project No. H.008915.2

Dear Mr. Richards:

The plan view of the above referenced conceptual project and preliminary project description have been reviewed. Tangipahoa Parish Government is in full agreement with this project. We see no possible adverse economic, social, or environmental impacts from this project.

If we can be of any assistance please let us know.

Yours Truly,


Maurice Jordan, Parish Engineer

COUNCIL

TRENT FORREST

DISTRICT 1
DISTRICT 5

EMILE "JOEY" MAYEAUX
BOBBY CORTEZ

DISTRICT 6
DISTRICT 10

JAMES BAILEY

DISTRICT 2

LIONELL WELLS

DISTRICT 7

LOUIS "NICK" JOSEPH
"BUDDY" RIDGEL

DISTRICT 3

DAVID P. VIAL

DISTRICT 8

CARLO BRUNO

DISTRICT 4

HARRY LAVINE

DISTRICT 9

H.G.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506

January 12, 2018

Bruce J. Richards
Project Manager
N-Y Associates
2750 Lake Villa Drive
Metairie, LA 70002
brichards@n-yassociates.com

Dear Mr. Richards,

Please reference your January 3, 2018, Endangered Species Act Project Review and Guidance for Other Federal Trust Resources Report regarding the proposed LA 3234 Extension project in Tangipahoa Parish, LA. The Service has reviewed the information provided and offers the following comments in accordance with the Endangered Species Act of 1973 (ESA), (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Gopher Tortoise

In Louisiana, the threatened gopher tortoise (*Gopherus polyphemus*) occurs in Washington, Tangipahoa, and St Tammany Parishes. The gopher tortoise is the only native tortoise found in the southeastern United States. This species is associated with areas that have well-drained, sandy soils appropriate for burrow establishment, ample sunlight for nesting, and understory vegetation suitable for foraging (i.e., grasses and forbs). The burrow opening is semicircular or “half-moon” in shape and a low mound of bare soil will be immediately in front of the mouth of an active burrow. Suitable soil types for gopher tortoises include Latonia and Bassfield (highly suitable), Cahaba, Ruston, and Smithdale (less suitable), and Abita, Malbis, Angie, and Prentiss (marginal).

Gopher tortoises prefer “open” longleaf pine-scrub oak communities that are thinned and burned every few years. Habitat degradation (lack of thinning or burning on pine plantations), predation, and conversion to agriculture or urbanization have contributed to the decline of this species. That habitat decline has concentrated many remaining gopher tortoise populations along pipeline and power line rights-of-way (ROW) within their range. Tortoise burrows also can be found along road ROW's, and other marginal habitats; including fence rows, orchard edges, golf

course roughs and edges, old fields, and pasturelands. Tortoises are often pushed into these areas due to adjacent habitat becoming unsuitable.

Because suitable gopher tortoise habitat was identified within the proposed action area, it should be surveyed by a qualified biologist for the presence of gopher tortoises and/or their burrows. Survey areas should be divided into consecutive "sight-distance" strip transects, each of which should be traversed by walking. Transect widths may range from 10 to 50 feet, and will be determined by ground visibility within the site.

We recommend that you provide this office with a copy of the survey report, which should include the following information:

1. Survey methodology including dates, qualifications of survey personnel, size of survey area, and transect density;
2. general soil type, understory conditions, percent canopy cover, and species composition (several representative photographs should be included);
3. GPS coordinates and photographs of burrow(s) to clarify whether the hole is for tortoises or some other animal (i.e. fox, armadillo);
4. determination of burrow status as active, inactive, or old (see burrow descriptions below);
5. presence or absence of gopher tortoises outside the burrow (only permitted individuals may videoscope burrows);
6. determination of whether the burrow is part of tortoise colony. (For each burrow found, a 600 foot radius around that burrow should be surveyed for additional burrows. This process should be continued for each new burrow until no new burrows are found, and will determine the extent of the colony); and,
7. topographic maps which illustrate areas of adequate gopher tortoise habitat, individual and/or colony locations, and burrow sites relative to proposed construction activities.

All persons surveying for gopher tortoise presence/absence should be familiar with the appearance of this species and its associated burrow. All tortoise burrows encountered should be categorized according to the following scheme:

1. Active – most likely occupied by a tortoise; as evidenced by presence of tortoise, freshly dug sand, tortoise tracks, or tortoise scat.
2. Inactive – most likely not currently occupied by a tortoise; as evidenced by absence of above signs, debris in burrow entrance. Future use of Inactive burrows by tortoises occasionally occurs.

3. Old – most likely not occupied by a tortoise for many years; as evidenced by deteriorated nature of burrow entrance, (i.e. collapsed, growth of vegetation, sand washed in, etc.) Old burrows are in such a condition that they are not considered to be good candidates for future use by tortoises.

If no individual tortoises or burrows are found, a request for our concurrence with your effect determination, as well as the basis for your determination, should be included with the survey report. If we concur with that determination, no further consultation with this office will be necessary. If active burrows and/or gopher tortoises are found in the surveyed area, however, further consultation with this office will be necessary.

Red-Cockaded Woodpecker

The proposed project would be located in a parish known to be inhabited by the endangered red-cockaded woodpecker (RCW, *Picoides borealis*). RCWs roost and forage year-round and nest seasonally (i.e., April through July) in open, park-like stands of mature pine trees containing little hardwood component, a sparse midstory, and a well-developed herbaceous understory. RCWs can tolerate small numbers of overstory and midstory hardwoods at low densities found naturally in many southern pine forests, but they are not tolerant of dense midstories resulting from fire suppression or from overstocking of pine. Trees selected for cavity excavation are generally at least 60 years old, although the average stand age can be younger. The collection of one or more cavity trees plus a surrounding 200 foot wide buffer of continuous forest is known as a RCW cluster. RCW foraging habitat is located within one-half mile of the cluster and is comprised of pine and pine-hardwood stands (i.e., 50 percent or more of the dominant trees are pines) that are at least 30 years of age and have a moderately low average basal area (i.e., 40 – 80 square feet per acre is preferred).

If the proposed project area does not contain suitable nesting and/or foraging habitat as defined above, further consultation with the Service will not be necessary. However, if potential RCW nesting or foraging habitat is located within the project area, all suitable nesting habitat within the project area and within a one-half mile radius from such habitat should be carefully surveyed by a qualified biologist for the presence of RCW cavity trees in accordance with the survey protocol found in *Appendix 4* of the *RCW Recovery Plan* (2003), which can be found online at http://www.fws.gov/rcwrecovery/recovery_plan.html. We request that you provide this office with a copy of the survey report, which should include the following details:

1. survey methodology including dates, qualifications of survey personnel, size of survey area, and transect density;
2. pine stand characteristics including number of acres of suitable nesting and/or foraging habitat, tree species, basal area and number of pine stems 10 inches or greater per acre, percent cover of pine trees greater than 60 years of age, species of dominant vegetation

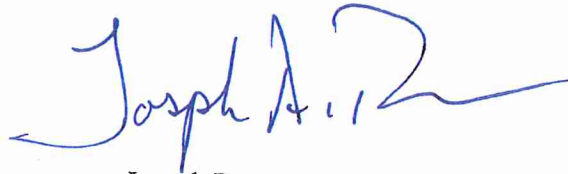
within each canopy layer, understory conditions and species composition (several representative photographs should be included);

3. number of active and inactive RCW cavity trees observed and the condition of the cavities (e.g., resin flow, shape of cavity, start-holes);
4. presence or absence of RCWs; and
5. topographic quadrangle maps which illustrate areas of adequate RCW nesting and/or foraging habitat, cluster sites, and cavity tree locations relative to proposed construction activities.

If implementation of the proposed project has the potential to directly or indirectly affect RCW individuals or their habitat, further consultation with this office will be necessary.

We appreciate the opportunity to provide comments in the planning stages of this proposed project. If you need further assistance, please contact Dave Oster (337/291-3121) of this office.

Sincerely,



Joseph Ranson
Field Supervisor
Louisiana Ecological Services Office

Attachment

cc: LDWF, Natural Heritage Program, Baton Rouge, LA

Bruce Richards

From: Linda (Brown) Piper <Linda.Piper@LA.GOV>
Sent: Monday, January 22, 2018 10:00 AM
To: Bruce Richards
Cc: Yasoob Zia
Subject: DEQ SOV 171227/1845 LA 3234 Ext from LA 1065 to Hammond Airport

January 22, 2018

Bruce J. Richards, AICP
N-Y Associates, Inc.
2750 Lake Villa Drive
Metairie, LA 70002
brichards@n-yassociates.com

RE: 171227/1845 LA 3234 Ext from LA 1065 to Hammond Airport
H.008915 DOTD Funding
Tangipahoa Parish

Dear Mr. Richards:

The Department of Environmental Quality (LDEQ), Business and Community Outreach Division has received your request for comments on the above referenced project.

After reviewing your request, the Department has no objections based on the information provided in your submittal. However, for your information, the following general comments have been included. Please be advised that if you should encounter a problem during the implementation of this project, you should immediately notify LDEQ's Single-Point-of-contact (SPOC) at (225) 219-3640.

- Please take any necessary steps to obtain and/or update all necessary approvals and environmental permits regarding this proposed project.
- If your project results in a discharge to waters of the state, submittal of a Louisiana Pollutant Discharge Elimination System (LPDES) application may be necessary.
- If the project results in a discharge of wastewater to an existing wastewater treatment system, that wastewater treatment system may need to modify its LPDES permit before accepting the additional wastewater.
- All precautions should be observed to control nonpoint source pollution from construction activities. LDEQ has stormwater general permits for construction areas equal to or greater than one acre. It is recommended that you contact the LDEQ Water Permits Division at (225) 219-9371 to determine if your proposed project requires a permit.
- If your project will include a sanitary wastewater treatment facility, a Sewage Sludge and Biosolids Use or Disposal Permit is required. An application or Notice of Intent will be required if the sludge management practice includes preparing biosolids for land application or preparing sewage sludge to be hauled to a landfill. Additional information may be obtained on the LDEQ website at <http://www.deq.louisiana.gov/portal/tabid/2296/Default.aspx> or by contacting the LDEQ Water Permits Division at (225) 219- 9371.
- If any of the proposed work is located in wetlands or other areas subject to the jurisdiction of the U.S. Army Corps of Engineers, you should contact the Corps directly regarding permitting issues. If a Corps permit is required, part of the application process may involve a water quality certification from LDEQ.
- All precautions should be observed to protect the groundwater of the region.
- Please be advised that water softeners generate wastewaters that may require special limitations depending on local water quality considerations. Therefore if your water system improvements include water softeners, you are



JOHN BEL EDWARDS
GOVERNOR

State of Louisiana
DEPARTMENT OF WILDLIFE AND FISHERIES
OFFICE OF WILDLIFE

JACK MONTOUCKET
SECRETARY

Date January 24, 2018

Name Bruce J. Richards

Company N-Y Associates, Inc.

Street Address 2750 Lake Villa Drive

City, State, Zip Metairie, La 70002

Project LA 3234 Ext from LA 1065 to Hammond Airport
State Project No. H.008915.2

Project ID 12018

Invoice Number 18012421

Personnel of the Coastal & Nongame Resources Division have reviewed the preliminary data for the captioned project.

The proposed project is located within the range of the gopher tortoise (*Gopherus polyphemus*) in Louisiana. The gopher tortoise is listed as threatened under the Endangered Species Act. The gopher tortoise is the only native tortoise found in the southeastern United States. It is a species in decline and warrants additional protection range wide on both state and federal levels. Gopher tortoises live in extensive subterranean burrows in dry upland habitats. The habitats where gopher tortoises are found include longleaf pine sandhills, dry oak hammocks, scrub, pine flatwoods, dry prairies, and coastal dunes. Tortoises also can live in man-made environments, such as pastures, old fields, and grassy roadsides. They also occur in existing maintained transmission rights-of-way within Washington, Tangipahoa, and St. Tammany Parishes. To be suitable for gopher tortoises, the habitat must have relatively well-drained sandy soils for digging burrows, herbaceous food plants, and open sunny areas for nesting and basking. Habitat alteration and land development pose the most serious threat to the continued survival of the gopher tortoise.

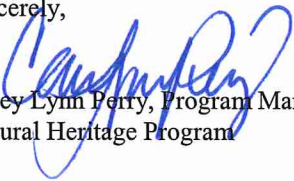
If gopher tortoises or gopher tortoise burrows are located within the project area, please contact LNHP endangered species biologist Keri Landry at 225-765-2809 for further consultation.

After careful review of our database, no other impacts to rare, threatened, or endangered species or critical habitats are anticipated for the proposed project. No state or federal parks, wildlife refuges or wildlife management areas are known at the specified site within Louisiana's boundaries.

The Louisiana Natural Heritage Program (LNHP) has compiled data on rare, endangered, or otherwise significant plant and animal species, plant communities, and other natural features throughout the state of Louisiana. Heritage reports summarize the existing information known at the time of the request regarding the location in question. The quantity and quality of data collected by the LNHP are dependent on the research and observations of many individuals. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in Louisiana have not been surveyed. This report does not address the occurrence of wetlands at the site in question. Heritage reports should not be considered final statements on the biological elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. LNHP requires that this office be acknowledged in all reports as the

source of all data provided here. If at any time Heritage tracked species are encountered within the project area, please contact the LNHP Data Manager at 225-765-2643. If you have any questions, or need additional information, please call 225-765-2357.

Sincerely,



Carey Lynn Perry, Program Manager
Natural Heritage Program



LOUISIANA DEPARTMENT OF AGRICULTURE & FORESTRY
MIKE STRAIN DVM
COMMISSIONER



January 24, 2018

**Agricultural &
Environmental
Sciences**
Suite 3000
(225) 925-3770
Fax: 925-3760

**Agro-Consumer
Services**
Suite 5000
(225) 922-1341
Fax: 923-4877

**Animal Health
& Food Safety**
Suite 4000
(225) 925-3962
Fax: 925-4103

Forestry
Suite 6000
(225) 925-4500
Fax: 922-1356

**Management
& Finance**
Suite 1000
(225) 922-1255
Fax: 925-6012

**Soil & Water
Conservation**
Suite 7000
(225) 922-1269
Fax: 922-2577

LA 3234 Ext from LA 1065 to Hammond Airport
C/O N-Y Associates, Inc.
Attn. Bruce J. Richards, AICP
Lake Villa Drive
Metairie, LA 70002

RE: State Project NO. : H.008915.2
LA 3234 EXT FROM LA 1065 TO HAMMOND AIRPORT
Parish: Tangipahoa

Dear Mr. Richards,

I have no comment at this time regarding the above referenced project.

Sincerely,

Bradley Spicer

Assistant Commissioner

BES: KM



REPLY TO
ATTENTION OF

Operations Division
Regulatory Branch

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
7400 LEAKE AVENUE
NEW ORLEANS, LOUISIANA 70118

1/25/2018

Mr. Bruce J. Richards, AICP
N-Y Associates, Inc.
2750 Lake Villa Drive
Metairie, Louisiana 70002

Dear Mr. Richards:

Reference is made to your solicitation of views request for the extension of an existing roadway, **State Project No. H.008915.2**, located in Hammond, Tangipahoa Parish, Louisiana (enclosed map). More specifically, the project proposes to extend LA 3234 (East University Avenue) from its current terminus at LA 1065 (North Cherry Street) to Hammond Northshore Regional Airport.

Information and signatures obtained from recent maps, aerial photography, information provided with your request, and local soil surveys concerning this site are indicative of the occurrence of waters of the United States, including wetlands. Department of the Army (DA) permits are required prior to the deposition or redistribution of dredged or fill material into jurisdictional wetlands or waters. If an approved delineation is needed, please furnish us with the detailed field data concerning vegetation, soils, and hydrology that we require for all jurisdictional decisions. The fact that a field wetland delineation/determination has not been completed does not alleviate your responsibility to obtain the proper DA permits prior to working in jurisdictional wetlands or waters occurring on this property.

Should there be any questions concerning these matters or questions specific to the regulatory permit process, please contact Mr. Stephen Pfeffer at (504) 862-2099 and reference our Account No. MVN 2017-01551-MS.

Sincerely,

PFEFFER.STEPHEN.
DAVID.1368987812

Digitally signed by
PFEFFER.STEPHEN.DAVID.1368987812
DN: c=US, o=U.S. Government, ou=DoD,
ou=PKI, ou=USA,
cn=PFEFFER.STEPHEN.DAVID.1368987812
Date: 2018.01.25 10:32:50 -06'00'

Stephen Pfeffer
Environmental Resources Specialist

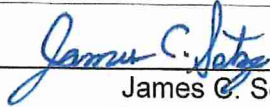
Enclosure



**Capital Region Planning Commission
Staff Review Form
E. O. 12372 Process**

Contact Person: Bruce J. Richards, AICP Phone: (504) 885-0500 Date: 01/31/2018

Applicant: Tangipahoa Parish
Project Title: LA 3234 Ext from LA 1065 to Hammond Airport, Stage 1
State Project: H.008915.2
F.A.P. No.: _____
Total\$: Solicitation of Views Only
Total \$: N/A

	<u>Yes</u>	<u>No</u>
Does the project conflict with any region-wide plans?	<input type="checkbox"/>	x
Is the project redundant with other federally funded projects?	<input type="checkbox"/>	x
The Capital Region Planning Commission (CRPC) staff on <u>01/31/2018</u> has reviewed the above referenced project and offers the following comments:		
The CRPC staff supports the above referenced project.	x	
The CRPC staff has neutral comments toward the above referenced project.	<input type="checkbox"/>	
The CRPC staff has negative comments regard the above referenced project. (See comments below)	<input type="checkbox"/>	
	 _____ James C. Setze Executive Director	

333 North 19th Street, Baton Rouge, Louisiana 70802-3735
 Phone: 225.383.5203 Fax: 225.383.3804



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS TX 75202-2733

March 20, 2018

Mr. Bruce J. Richards, AICP
Consultant Project Manager
N-Y ASSOCIATES, INC. (Engineers-Architects-Planners)
2750 Lake Villa Drive
Metairie, Louisiana 70002

Dear Mr. Richards:

We have received your December 28, 2017, letter requesting our evaluation of the potential environmental impacts which might result from the following:

**Three Alternatives are being Proposed, Each Includes a New Bridge Crossing, Upgrade of a Portion of US 190 to Four-Lane Capacity, and Five Possible Roundabouts
LA 3234 Extension from LA 1065 to Hammond Northshore Regional Airport, STP No. H.008915.2 & N-Y Job No. 16012.01
Hammond, Tangipahoa Parish, Louisiana**

The project, funded by the Louisiana Department of Transportation and Development, is located on the Southern Hills aquifer system which has been designated a sole source aquifer (SSA) by the EPA. Based on the information provided for the project, we have determined that the project, as proposed, should not have an adverse effect on the quality of the ground water underlying the project site.

This approval of the proposed project does not relieve the applicant from adhering to other State and Federal requirements, which may apply. This approval is based solely upon the potential impact to the quality of ground water as it relates to the EPA's authority pursuant to Section 1424(e) of the Safe Drinking Water Act.

If you did not include the parish, project description, project location, area map, plat or the federal funding agency, please do so in future SSA correspondence.

If you have any questions on this letter or the SSA program please contact me at (214) 665-8485.

Sincerely yours,

A handwritten signature in blue ink, appearing to read "Omar T. Martinez", enclosed within a large, loopy blue scribble.

Omar T. Martinez, Coordinator
Sole Source Aquifer Program
Ground Water/UIC Section

cc: Jesse Means, LDEQ



**Design Report
for
2017 Minimum Design Guidelines**

Status:
Preliminary
Final
Revised

Project Information:

State Project No.	
Federal Aid Project No.	
Control Section(s)	
Project Name	
Route(s)	
Parish	

Description of Work (or Revision Description)

--

Traffic

Control Section	
Current ADT	
Design ADT	
D	
K	
T	
TDDHV	

Design Waivers

--

Design Exceptions

--

Route and Design Classification

Urban	Rural					
Freeway	Arterial	Collector	Local	Ramp		

Work Classification

<u>Work Type</u>	<u>System</u>	<u>Oversight</u>
New/Reconstruction	NHS	PODI
Major Rehabilitation	Non NHS	Assumed
Structural Improvement		None
Spot Replacement		
Minor Rehabilitation		
Preventive Maintenance		

Recommended By:

Engineer of Record:	Title:
Signature:	Date:
DOTD Technical Task Manager (Road):	Title:
Signature:	Date:
DOTD Technical Task Manager (Bridge):	Title:
Signature:	Date:
DOTD Project Manager:	Title:
Signature:	Date:
Approved By:	
Print Name:	Title:
Signature:	Date:

Roadway Features:

Design Feature	Preferred	Acceptable	Proposed Value	Design Waiver Required	Design Exception Required	Remarks or Explanation for Proposed Value
Design Speed (mph)						
Lane Width (ft)						
Shoulder Width (ft)						
Inside						
Outside						
Shoulder Type						
Inside						
Outside						
Lateral Offset (ft)						
Clear Zone (ft)						
Cross Slope (%)						
Longitudinal Grade						
Slopes (ft/ft)						
Fore Slope						
Back Slope						
Median Width (ft)						

Stopping Sight Distance: Vertical and horizontal distances must be met.

Do plans meet Stopping Sight Distance requirements?	Yes	No	Design Exception Required	Remarks or Explanation for Proposed Value

Complete Streets: Accommodations for bikes and pedestrians must be considered. See Design Guidelines for accommodation requirements.

Do plans meet Complete Streets accommodations?	Yes	No	Design Exception Required	Remarks or Explanation for Proposed Value

Horizontal Curves Radius/Superelevation:

Max Super-elevation rate (%) e_{max}	Design Speed (mph)	Required Minimum Radius (ft)			Minimum radius and appropriate superelevation are being used for all curves?	Design Exception Required	Remarks or Explanation for Proposed Value
		Normal Crown	Reverse Crown	Full Super			
					Yes	No	
					Yes	No	

Bridge Features:						
Design Feature	Preferred	Acceptable	Proposed Value	Design Waiver Required	Design Exception Required	Remarks or Explanation for Proposed Value
Bridge Width (ft)						
Curb						
Shoulder						
Structural Capacity:						
Do all structures meet requirements for Structural Capacity?						
Yes		No				Remarks or Explanation for Proposed Value
Vertical Clearance:						
Are minimum required roadway clearances met for all structure types?						
Yes		No				Remarks or Explanation for Proposed Value
Additional Comments:						