Final Environmental Assessment

I-210 Cove Lane / Nelson Road Interchange Improvements
Calcasieu Parish, Louisiana
State Project No. H.010151.2
Federal Project No. H.010151

14 January 2013

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FEDERAL HIGHWAY ADMINISTRATION

FINDING OF NO SIGNIFICANT IMPACTS (FONSI)

FOR

STATE PROJECT NO. H.010151.2
F.A.P. NO. H.010151
I-210 COVE LANE / NELSON ROAD
INTERCHANGE IMPROVEMENTS
ROUTE I-210
CALCASIEU PARISH

The FHWA has determined that this project will not have any significant impact on the human environment. This Finding of No Significant Impacts (FONSI) is based on the Environmental Assessment, which has been independently evaluated by the FHWA and determined to adequately and accurately discuss the environmental issues and impacts of the proposed project. It provides sufficient evidence and analysis for determining that an environmental impact statement is not required.

APPROVED

CARL M. HIGGINBOTHAM SMITH
PROJECT DELIVERY TEAM LEADER
FEDERAL HIGHWAY ADMINISTRATION
DATE 1-11-13

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ENVIRONMENTAL DETERMINATION CHECKLIST

State Project No. H.010151.2
Federal Aid No. 010151
Name: I-210 Cove Lane/Nelson Road Interchange Improvements
Route: I-210 from Cove Lane to Nelson Road
Parish: Calcasieu

1. General Information

Status:
( ) Conceptual Layout
(**X**) Line and Grade
( ) Survey
( ) Plan-in-Hand
( ) Preliminary Plans
( ) Final Design

2. Class of Action

( ) Environmental Impact Statement (E.I.S.)
(**X**) Environmental Assessment (E.A.)
( ) Categorical Exclusion (C.E.)
( ) Programmatic C.E. (as defined in letter of agreement dated 03/15/95, does not require FHWA approval)

3. Project Description (use attachment if necessary)

See Sections 1, 2, and 3.

4. Public Involvement

(**X**) Views were solicited on **August 22, 2012**.
Responses are attached.
(**X**) No adverse comments were received.
( ) Comments are addressed in attachment.
( ) Views were not solicited.
( ) A public hearing (P/H)/Opportunity is not required.
( ) An opportunity for requesting a P/H will be afforded upon your concurrence.
( ) Opportunity was afforded, with no requests for P/H.
(**X**) A Public Hearing was held on **December 13, 2012**.
(**X**) A Public Meeting was held on **September 18, 2012**.

5. Real Estate

	NO	YES
a. Will additional right-of-way be required?	( )	(**X**)
b. Will any relocations be required?	( )	(**X**)
c. Are construction or drainage servitudes required?	(**X**)	( )
d. Will right-of-way be required from a Wetland Reserve Program (WRP) property?	(**X**)	( )

6. Cultural and 106 Impacts

		NO	YES
a.	**Section 4(f) or 6(f) lands**		
	Are any impacted by the project? (If so, list below)……..	(**X**)	( )
	Are any adjacent to the project? (If so, list below)……	(**X**)	( )
b.	**Known Historic sites/structures**		
	Are any impacted by the project? (If so, list below)……..	(**X**)	( )
	Are any adjacent to the project? (If so, list below)……	(**X**)	( )
c.	**Known Archaeological sites**		
	Are any impacted by the project? (If so, list site # below)……....	(**X**)	( )
	Are any adjacent to the project? (If so, list site # below)……..	(**X**)	( )
d.	**Cemeteries**		
	Are any impacted by the project? (If so, list below)……..	(**X**)	( )
	Are any adjacent to the project? (If so, list below)……	(**X**)	( )
e.	**Historic Bridges**……..	(**X**)	( )

7. Wetlands

		NO	YES
a.	Are wetlands being affected?.....	( )	(**X**)
b.	Are other waters of the U.S. being affected?.....	( )	(**X**)
c.	Can C.O.E. Nationwide Permit be used?.....	(**X**)	( )

8. Natural Environment

		NO	YES
a.	Endangered/Threatened Species/Habitat……	(**X**)	( )
b.	Within 100 Year Floodplain?.....	( )	(**X**)
	Is project a significant encroachment in Floodplain?.....	(**X**)	( )
c.	In Coastal Zone Management Area?.....	(**X**)	( )
	Is the project consistent with the Coastal Management Program?.....	(**X**)	( )
	Will a Coastal Use Permit be required?.....	(**X**)	( )
d.	Coastal Barrier Island (Grand Isle only)……..	(**X**)	( )
e.	Farmlands (use form AD 1006 if necessary)……..	(**X**)	( )
f.	Is project on Sole Source Aquifer?.....	( )	(**X**)
	Is coordination with EPA necessary?.....	(**X**)	( )
g.	Natural & Scenic Stream Permit required……..	(**X**)	( )
h.	Is project impacting a waterway?.....	( )	(**X**)
	Has navigability determination been made?.....	( )	(**X**)
	…..Will a US Coast Guard permit or amended permit be required?.....	(**X**)	( )

9. Physical Impacts

		NO	YES
a.	Is a noise analysis warranted (Type I project)……	( )	(**X**)
	Are there noise impacts based on violation of the (NAC)?.....	()	(**X**)
	Are there noise impacts based on the 10 dBA increase?.....	(**X**)	( )
	Are noise abatement measures reasonable and feasible?.....	(**X**)	( )
b.	Is an air quality study warranted?.....	(**X**)	( )
	Do project level air quality levels exceed the NAAQS for CO?.....	(**X**)	( )
c.	Is project in a non-attainment area for Carbon monoxide (CO), Ozone (O_3), Nitrogen dioxide (NO_2), or Particulates (PM-10)? ……..	(**X**)	( )
d.	Is project in an approved Transportation Plan, Transportation Improvement Program (TIP) and State Transportation Improvement Program (STIP)?.....	( )	(**X**)
e.	Are construction air, noise, & water impacts major?……..	(**X**)	( )
f.	Are there any known waste sites or U.S.T.s?.....	( )	(**X**)
	Will these sites require further investigation prior to purchase? ……..	(**X**)	( )

10. Social Impacts

		NO	YES
a.	**Land use changes**……..	( )	(**X**)
b.	**Churches and Schools**		
	Are any impacted by the project? (If so, list below)……..	( )	(**X**)
	Are any adjacent to the project? (If so, list below)……..	( )	(**X**)
c.	**Title VI Considerations**……	(**X**)	( )
d.	**Will any specific groups be adversely affected**		
	(i.e., minorities, low-income, elderly, disabled, etc.)? ……..	(**X**)	()
e.	**Hospitals, medical facilities, fire police**		
	Are any impacted by the project? (If so, list below)……..	(**X**)	( )
	Are any adjacent to the project? (If so, list below)……..	(**X**)	( )
f.	**Transportation pattern changes**……	( )	(**X**)
g.	**Community cohesion**……	(**X**)	( )
h.	**Are short-term social/economic impacts due to construction**		
	considered major?.....	(**X**)	( )
I.	**Do conditions warrant special construction times**		
	(i.e., school in session, congestion, tourist season, harvest)?.....	(**X**)	( )
j.	**Were Context Sensitive Solutions considered?** (If so explain below)……..	(**X**)	( )
k.	**Will the roadway/bridge be closed? (If yes, answer questions below)**……..	( )	(**X**)
	Will a detour bridge be provided?.....	(**X**)	( )
	Will a detour route be signed?.....	( )	(**X**)

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

7(c) Permit modification of existing wetland permit from planned development to the north of I-210 has been requested for Cove Lane interchange improvements near Cline Canal.

9(f) Required right-of-way for lane widening along, and intersection improvements associated with the Preferred Alternative at West Prien Lake Road and Nelson Road, south of I-210, may impact Tobacco Plus and Murphy USA, which may be located within required right-of-way for improvements included in Phase II construction activities. The UST facilities at both sites will not be impacted by required right-of-way. No identified sites will be impacted by construction activities associated with Phase I for the Preferred Alternative.

10(b) Adjacent to W. Prien Lake Road south of I-210 near Cove Lane – Apostolic Temple.
North side of W. Prien Lake Road between Nelson Road and Cove Lane – Christ Community Church.

10(k) Roadway closures will be required for all Alternatives.

Preparer: ARCADIS U.S., Inc.
Title: Scott L. Hoffeld, Sr. Project Manager
Date: January 14, 2013

Attachments

(**X**) S.O.V. and Responses
(**X**) Wetlands Finding **Section 3.2, Appendix C**
(**X**) Project Description Sheet **Sections 1, 2, and 3**
( ) Conceptual Stage Relocation Plan
(**X**) Noise Analysis **Section 3.7, Appendix D**
( ) Air Analysis
(**X**) Exhibits and/or Maps
( ) 4(f) Evaluation
( ) Form AD 1006 (Farmlands)
( ) 106 Documentation
(**X**) Other
The Public Meeting Summary is on file with LADOTD and was submitted on October 15, 2012.
The Public Hearing Transcript is on file with LADOTD and was submitted January 8, 2013.
Permits, Mitigation and Commitments follows Environmental Checklist

Summary of Permits, Mitigation, and Commitments

The **Selected Alternative** would involve the preparation and submittal of several federal and state permits including mitigation requirements.

Section 404 Permit

The **Selected Alternative** will require a U. S. Army Corps of Engineers (USACE) Section 404 Permit. Coordination with the USACE New Orleans District has been initiated. In order to comply with the federal policy of ensuring that there is no net loss of wetlands acres, unavoidable wetlands impacts along the corridor would be compensated according to an approved mitigation plan as part of the wetland permitting process.

Section 10 of the Rivers and Harbors Act

Policy and coordination procedures regarding navigational clearance for bridges is set forth in 23 United States Code Part 650, Subpart H. Section 650.805(b), Bridges Not Requiring a Permit, states a U.S. Coast Guard (USCG) permit shall not be required if the Federal Highway Administration (FHWA) determines that the proposed construction, reconstruction, rehabilitation, or replacement of the federally aided or assisted bridge is over waters (1) which are not used or are not susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce and (2) which are (i) not tidal, or (ii) if tidal, used only by recreational boating, fishing, and other small vessels less than 21 feet in length.

FHWA-USCG Coordination

The FHWA has responsibility to determine whether a USCG permit is required for the bridge crossing of Cove Lane over Cline Canal. In a November 5, 2012, response to bridge permit requirements for crossing Cline Canal, the USCG has concurred that the proposed bridge is exempt from permitting.

Section 401 Water Quality Certification

A Section 401 Water Quality Certification is required in conjunction with the Section 404 permit per Louisiana's Water Quality Regulations (Louisiana Administrative Code 3:IX Chapter 15). This certification would be coordinated with the Louisiana Department of Environmental Quality (LDEQ).

Louisiana Pollutant Discharge Elimination System Permit (LPDES) and Storm Water Pollution Prevention Plan (SWPPP)

Adverse construction impacts to water quality would be reduced by implementation of Best Management Practices as outlined in a project-specific SWPPP and Erosion and Sedimentation Control Plan for the project. Measures to reduce erosion and nonpoint source pollution from runoff into surface waters, properly store materials and equipment, properly store and dispose of waste materials, maintain equipment, and avoid accidental discharges of fuels or other chemicals will be outlined in the SWPPP. The **Selected Alternative** would require an LPDES Notice of Intent (NOI) for construction-related

activities. The SWPPP will be required to be prepared and held on the construction site in addition to the LPDES NOI application. LDEQ monitors these practices through its Water Quality Certification program, which is integrated into the Section 404 process.

Residential Relocations

Residential relocations associated with the **Selected Alternative** will be addressed through the Uniform Relocation Act of 1970. Measures to reduce relocation impacts will be incorporated during the design stage.

Property Access

Access will be maintained to properties and all residences and businesses adjacent to the project.

Traffic Control

Construction-related traffic delays will be minimized through signing plans that inform the drivers of work zones, road closures, detours, and other temporary changes. All traffic maintenance plans will be prepared by qualified traffic engineers in accordance with Louisiana Department of Transportation and Development standards and will be monitored for effectiveness throughout the construction process.

Implementation

The project is proposed to be implemented in two phases. Phase I will include the full access interchange proposed at I-210 and Cove Lane followed by re-evaluation of traffic patterns at Nelson Road to ensure that the best solution is implemented. Phase II improvements at the Nelson Road interchange, West Prien Lake Road relocation, and other surface street improvements will be constructed in this separate and later phase.

Bicycle and Pedestrian Facilities

Public concern was expressed by 20 commenters for bicycle and pedestrian facilities within the project area. The *City of Lake Charles Bicycle and Pedestrian Master Plan* (May 16, 2012) proposes sidewalk improvements along West Prien Lake Road and bicycle lane improvements along Nelson Road. Currently, the Master Plan does not include bicycle and pedestrian improvements along Cove Lane.

Initial design and implementation of **Alternative 21b** Phase I may not include construction of bicycle and pedestrian improvements. However, understanding that future planning may include bicycle and pedestrian improvements at Cove Lane, Phase I will allow for incorporation of bicycle and pedestrian facilities at West Prien Lake Road and Cove Lane continuing north along Cove Lane across Cline Canal. Nelson Road pedestrian and bicycle improvements will be evaluated and facilities incorporated during Phase II. Because Phase II may be modified after being re-evaluated, the extent of bicycle and pedestrian improvements for Phase II is uncertain. Bicycle and pedestrian improvements for both phases will be evaluated in accordance with LADOTD's Complete Street Policy and in coordination with the City of Lake Charles.

Tables

Figures

Figures (Continued)

Appendices

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APE	Area of Potential Effect
ARB	Access Review Board
BMP	Best Management Practices
CAAA	Clean Air Act Amendments
CEI	Coastal Environments, Inc.
CFR	Code of Federal Regulations
CWA	Clean Water Act
dBA	A-weighted decibels
DHP	Division of Historic Preservation
DOA	Division of Archaeology
DOT	U.S. Department of Transportation
EA	Environmental Assessment
EDMS	Electronic Document Management System
EDR	Environmental Data Resources, Inc.
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FPPA	Farmland Protection Policy Act
HREC	Historical Recognized Environmental Condition
I-210	Interstate 210
IJR	Interchange Justification Report
IMCAL	Imperial Calcasieu Regional Planning & Development Commission
LADOTD	Louisiana Department of Transportation and Development
LDCRT	Louisiana Department of Culture, Recreation & Tourism
LDEQ	Louisiana Department of Environmental Quality
LDNR	Louisiana Department of Natural Resources
LDWF	Louisiana Department of Wildlife and Fisheries
LEP	Limited English Proficiency
LHRI	Louisiana Historic Resource Inventory
LNHP	LDWF Natural Heritage Program
LOS	Level of Service
LPDES	Louisiana Pollutant Discharge Elimination System

mph	Miles Per Hour
MPO	Metropolitan Planning Organization
MSE	Mechanically Stabilized Earth
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OCM	Office of Coastal Management
REC	Recognized Environmental Condition
ROW	Right-of-Way
SHPO	State Historic Preservation Office
SOV	Solicitation of Views
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	Underground Storage Tank

1. Description of the Proposed Action

The Louisiana Department of Transportation and Development (LADOTD) proposes the implementation of transportation mobility improvements to Interstate 210 (I-210) in Lake Charles and Calcasieu Parish, Louisiana. The *I-210 Cove Lane to Nelson Road Interchange Justification Report* (IJR) documents the study of possible long-term improvements to improve access to the I-210 corridor in the vicinity of Cove Lane and Nelson Road. Proposed improvements will serve the surrounding Lake Charles vicinity, the Port of Lake Charles, and recent and proposed development within the Port of Lake Charles property north of the I-210 corridor.

Controlled access highways are strictly regulated to ensure the safe and efficient movement of people and goods. Requests for new access are thoroughly reviewed by LADOTD and approved by the Federal Highway Administration (FHWA). The January 2011 *Policy for Evaluating New Access to Controlled Access Facilities* (Policy) identifies the steps necessary to evaluate proposed new access to an existing interstate system. The IJR, prepared by ABMB Engineers, Inc. (now STANTEC), presents the results of traffic, geometric, signing, and safety analyses for 28 alternate improvement configurations for proposed access along I-210 in Lake Charles, Calcasieu Parish, Louisiana. Six of the 28 alternatives have been identified as meeting LADOTD and FHWA policy requirements, and the IJR has been submitted to FHWA for review and approval. The six alternatives offer a variety of improvements and alternate configurations.

The study of these alternatives and the associated environmental consequences were evaluated according to the National Environmental Policy Act (NEPA); LADOTD's Stage 1 Planning/Environmental Manual of Standard Practice, and FHWA Guidance for Preparing and Processing Environmental and Section 4(f) Documents.

The following documents are provided as appendices to this document: **Appendix A**: Agency Coordination; **Appendix B**: Interchange Justification/Modification Report; **Appendix C**: Wetland Report; **Appendix D**: Noise Analyses Appendices; and **Appendix E**: **Section 3.9** – Hazardous Materials Sites and Underground Storage Tanks and **Section 3.10** – Pipelines; Oil & Gas Wells and Water Wells.

1.1 Project Location

Calcasieu Parish is located in southwest Louisiana approximately 75 miles west of Lafayette, Louisiana, and 60 miles east of Beaumont Texas. The project Study Area **(Figure 1**) is located east of Prien Lake, south of the Calcasieu River, and west of Holly Hill Road along the I-210 corridor. It includes West Prien Lake Road between Cove Lane and Nelson Road and extends south along Cove Lane and Nelson Road and north of I-210 along Nelson Road in Lake Charles, Calcasieu Parish, Louisiana. Residential, light commercial, religious, and recreational land uses exist to the south of I-210 with commercial, retail, hotel, and casino land uses to the north.

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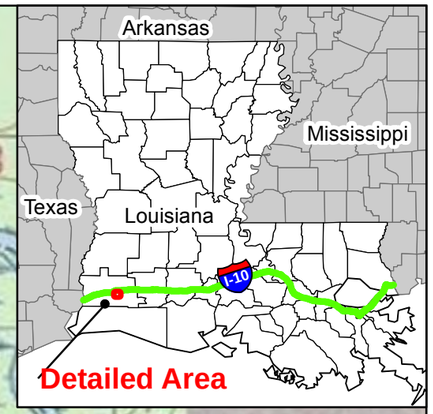

Legend
Study Area

I-210 – COVE LANE / NELSON ROAD
INTERCHANGE IMPROVEMENTS
S.P. NO.: H.010151.2 / F.A.P. NO.: H.010151
CALCASIEU PARISH, LOUISIANA

PROJECT LOCATION MAP

FIGURE
1

FHWA

LOUISIANA'S ON THE MOVE. DOTD BUILDS THE WAY

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1.2 Project Description

The I-210 Cove Lane / Nelson Road Interchange Improvement project comprises improvements along I-210 between Cove Lane and Nelson Road and the adjoining local street network. The improvements will provide access to a future planned casino and other developments and address future projected traffic.

1.3 Purpose and Need for Action

The IJR has been prepared and is being reviewed by FHWA in accordance with the requirements outlined in the Memorandum of Understanding executed between the LADOTD, the FHWA, the Imperial Calcasieu Regional Planning & Development Commission (IMCAL), and Creative Casinos of Louisiana, Inc. (now Ameristar Casinos).

1.3.1 Project Purpose

The purpose for the proposed project is to construct roadway improvements that will accommodate existing and projected future traffic demands along the I-210 corridor between Cove Lane and Nelson Road within LADOTD and FHWA policies and standards.

1.3.2 Project Need

The proposed improvements will serve the surrounding community including the Lake Charles metropolitan area, the Port of Lake Charles, and proposed planned development north of the I-210 corridor. The needs for the proposed project include:

- Improve access and mobility of people and goods throughout the Study Area;
- Relieve future congestion on area roadways; and
- Support planned commercial and residential growth, particularly north of I-210.

The proposed planned casino development located north of I-210 and adjacent to the Study Area will place additional demands on the transportation infrastructure within and surrounding the project Study Area. IMCAL serves as the Metropolitan Planning Organization (MPO) for the Lake Charles metropolitan area and is responsible for both short- and long-range transportation planning. The MPO identified the need for improvements at Cove Lane and Nelson Road in the draft *Lake Charles Metropolitan Planning Organization Unified Planning Work Program FY 2012/2013* (July 1, 2012) and continues to implement travel demand management techniques in order to reduce traffic congestion, traffic counts, and travel times and increase driver approval.

2. Alternatives

NEPA requires that all reasonable alternatives be evaluated that could achieve the purpose of the project and address its identified needs. Controlled access highways are strictly regulated to ensure the safe and efficient movement of people and goods. Requests for new access are thoroughly reviewed and approved by FHWA. The Policy identifies the steps necessary to evaluate proposed new access to an existing interstate system. These steps are being completed in the IJR in accordance with the Policy.

2.1 The Interchange Justification Process

The I-210 Cove Lane to Nelson Road IJR documents the study of possible long-term improvements to improve access to the I-210 corridor in the vicinity of Cove Lane and Nelson Road. The proposed improvements will serve the surrounding Lake Charles vicinity, the Port of Lake Charles, and recent and proposed development within the Port of Lake Charles property north of the I-210 corridor.

Current FHWA policy states that new access points to the existing Interstate System must satisfy eight policy requirements. These eight policy requirements are outlined in the IJR and are followed by a discussion demonstrating that the policy requirements have been satisfied for the proposed project.

The IJR presented the results of traffic, geometric, signing, and safety analyses for proposed access along I-210 in Lake Charles, Calcasieu Parish, Louisiana. For analyses purposes, the implementation year has been identified as 2021 and the design year as 2041, which will allow for all required improvements along I-210 to be constructed, as well as the completion of the Nelson Road Extension and Bridge project across Contraband Bayou north to Sallier Street. The Nelson Road Extension is independent of and located to the northeast of the project Study Area.

A total of 28 preliminary alternative interchange improvement configurations were evaluated for meeting Policy requirements in the early stages of the IJR process. The 28 alternatives and the basis for elimination or selection for further analysis were presented to FHWA in March 2012. Twenty-two of the 28 alternatives were eliminated from further analysis by LADOTD based on Policy and/or traffic functionality and six alternatives were selected to be fully analyzed for traffic, geometric, signing, and safety analyses. **Table 1** lists each alternative and the reason for rejection as appropriate. **Alternatives 2, 4, 7, 7a, 16a,** and **21b** were selected for detailed analyses and are presented in the IJR, Step 8 Document (**Appendix B**) submitted to LADOTD in September 2012.

Table 1. Alternatives Considered for Detailed Analyses

Alternative	Move Forward	Reason for Rejection	Cost Estimate (Millions)
Alternative 1	N	Improve existing Nelson Road interchange; eliminate turnaround and move southbound Nelson Road lanes.	$6
Alternative 2	Y	Selected for Detailed Analyses.	$75
Alternative 3	N	Traffic at I-210 EB off ramp at Nelson too high.	$32
Alternative 4	Y	Selected for Detailed Analyses.	$72

Alternative	Move Forward	Reason for Rejection	Cost Estimate (Millions)
Alternative 5	N	Does not meet LOS traffic operations requirements in the design year.	$11
Alternative 6	N	Nelson to I-210 WB missing; Cove/Mojito to I-210 WB missing; traffic on I-210 EB exit ramp at Cove is very high (may require additional exit lane on structure over Prien Lake).	$37
Alternative 7	Y	Selected for Detailed Analyses.	$99
Alternative 7a	Y	Selected for Detailed Analyses.	$92
Alternative 8	N	Traffic breaks down at West Prien Lake and Nelson Roads.	$78
Alternative 9	N	I-210 EB to Cove/Mojito missing; Cove/Mojito to I-210 WB missing.	$39
Alternative 10	N	I-210 EB to Nelson missing; Nelson Road to I-210 WB missing; traffic on I-210 EB exit ramp at Cove Lane is very high; does not meet interchange spacing requirements.	$39
Alternative 11	N	I-210 WB to Mojito missing; Mojito to I-210 EB missing; does not meet interchange spacing requirements.	$16
Alternative 12	N	I-210 WB to Mojito missing; Mojito to I-210 EB missing; does not meet interchange spacing requirements.	$22
Alternative 13	N	Nelson Road to I-210 WB missing; Cove/Mojito to I-210 WB missing; I-210 WB to Cove/Mojito missing; does not meet interchange spacing requirements.	$42
Alternative 14	N	Nelson Road to I-210 WB missing; Cove/Mojito to I-210 WB missing; I-210 WB to Cove/Mojito missing; does not meet interchange spacing requirements.	$50
Alternative 15	N	Nelson Road to I-210 WB missing; Cove/Mojito to I-210 WB missing; I-210 WB to Cove/Mojito missing; does not meet interchange spacing requirements.	$75
Alternative 16	N	Nelson Road to I-210 WB missing; Cove/Mojito to I-210 WB missing; I-210 WB to Cove/Mojito missing; traffic on I-210 EB ramp at Cove Lane is very high (may require additional exit lane on structure over West Prien Lake Road); I-210 EB to Nelson Road missing; does not meet interchange spacing requirements.	$48
Alternative 16a	Y	Selected for Detailed Analyses.	$70
Alternative 17	N	Nelson Road to I-210 WB missing; Cove/Mojito to I-210 WB missing; I-210 WB to Cove/Mojito missing; traffic on I-210 EB ramp at Cove Lane is very high (may require additional exit lane on structure over West Prien Lake Road); I-210 EB to Nelson Road missing; does not meet interchange spacing requirements.	$73
Alternative 18	N	Nelson Road to I-210 WB missing; does not meet interchange spacing requirements.	$95
Alternative 18a	N	Variation of 21.	$90
Alternative 19	N	Nelson Road to I-210 WB missing; Cove/Mojito to I-210 WB missing; does not meet interchange spacing requirements.	$98
Alternative 20	N	Nelson Road to I-210 WB missing; does not meet interchange spacing requirements.	$74
Alternative 20a	N	Variation of 21.	$69
Alternative 20b	N	Variation of 21 – Dismissed prior to detailed analyses.	--

Alternative	Move Forward	Reason for Rejection	Cost Estimate (Millions)
Alternative 21	N	Does not meet LOS traffic operations requirements in the design year.	$40
Alternative 21a	N	Variation of 21– Dismissed prior to detailed analyses.	--
Alternative 21b	Y	Selected for Detailed Analyses.	$69

Indicates Alternative Selected for Detailed Analyses in the IJR and full evaluation in this EA.

1. NC - No Cost Estimate completed. Alternative was dismissed prior to detailed analyses.

EB Eastbound.
LOS Level of Service.
WB Westbound.
Source: LADOTD; AMBM Engineers, Inc.

2.2 Traffic and Safety

Traffic

The primary traffic analysis measure of effectiveness is level of service (LOS). Because of its urban location, proposed improvements along the I-210 corridor must meet LOS D or better in the design year. For this project, the Implementation Year is 2021 and the Design Year is 2041. LOS classifications are designated from LOS A to LOS F with LOS A representing the best operating conditions and LOS F representing the worst. Operational conditions considered in LOS classification include speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. **Table 2** provides a summary of the detailed traffic, geometric, signing, and safety analyses for all six alternatives. A more detailed presentation of this information is provided in the IJR (**Appendix B**).

Table 2. Summary of Detailed Traffic Analyses for Design Year 2041

Criteria	Alternative 2	Alternative 4	Alternative 7	Alternative 7a	Alternative 16a	Alternative 21b Option 1[1]	Alternative 21b Option 2[2]
Traffic	A	A	A	A	A	A	A
Geometrics	A	A	A	A	A	A	A
Constructability	C	C	MC	MC	LC	C	C
Signing	A	A	A	A	A	A	A
Safety	A	A	A	A	A	A	A
Cost (Million)	$75	$72	$99	$92	$70	$69	$63

UA: unacceptable; A: acceptable; LC: least complex; C: complex; MC: most complex.

1. Option 1 includes relocation of W Prien Lake Road to the east and north of Prien Lake Plaza.
2. Option 2 includes relocation of W Prien Lake Road through the Prien Lake Plaza parking lot.

Source: I-210 Interchange Justification Report, Cove Lane to Nelson Road, Step 8 Document, Sept. 2012. Stantec.

Detailed analyses were completed for each of the Build Alternatives in the IJR which included worst case LOS during the Implementation Year 2021 and Design Year 2041.

Figure 2 provides a summary of traffic operations at the critical location where these deficiencies occur and indicated LOS. Locations where the required LOS D is not achieved are shown in red within these tables. For **Alternatives 2, 4, 7, 7a, 16a,** and **21b**, the proposed improvements meet the LOS requirements along I-210 between Cove Lane and Nelson Road including the I-210 mainline, ramp junctions, ramp terminals, and weaving segments. Beyond the proposed I-210 improvements, an undesirable LOS is found at several locations for all six alternatives and the **No Build Alternative**. Other improvements to the local street network are required within each alternative in order to adequately accommodate design year traffic.

The **No Build Alternative** does not meet the traffic operation in the design year.

Safety

A safety analysis was completed for the IJR and was based on data supplied by LADOTD for the time period 2007 through 2010. Existing crash/collision and conflict points were identified within the project Study Area. Crash/collision points where the accident rate is considered abnormal and conflict points are locations where vehicle movements conflict which could result in an accident. The safety analysis also discusses the impact each alternative will have on the crash/collision points, the number of conflict points that result, and whether design exceptions will be required. The proposed improvements for each alternative are anticipated to perform within acceptable safety parameters and not further degrade these locations.

Proposed improvements to I-210 must meet or exceed LADOTD design guidelines for freeways, standard plans for entrance/exit ramps, and American Association of State Highway and Transportation Officials design guidance for interstate mainline and entrance/exit ramps. The number of conflict points will increase with the proposed improvements for each alternative; however, this increase alone is not deemed to create new safety concerns. The safety analyses concluded that the proposed improvements for each alternative will perform within acceptable safety standards.

The **No Build Alternative** does not improve safety issues within the Study Area and along I-210 and will likely result in further degradation of crash/collision and conflict point locations.

2.3 Alternatives

The six alternatives, along with **No Build Alternative**, identified in the IJR and the associated environmental consequences were evaluated according to NEPA, *DOTD's Stage 1 Planning/Environmental Manual of Standard Practice*, and *FHWA's Guidance for Preparing and Processing Environmental and Section 4(f) Documents*. The alternatives are shown on **Figures 3** through **8** depicting the proposed configuration, laneage, and required and existing rights-of-way (ROW) for the alternative. Brief descriptions of the alternatives follow.

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Summary Results of Signalized Analyses

	Existing	No Build	Alt 2	Alt 4	Alt 7	Alt 7a	Alt 16a	Alt 21b Option 1	Alt 21b Option 2
Cove Ln at W Prien Lake Rd	-	-	C	C	A	A	D	-	-
Cove Ln at I-210 EB Ramp	-	-	-	-	-	-	A	-	-
Nelson Rd at W Prien Lake Rd/ Wal-Mart	D	F	D	D	C	D	D	D	D
W Prien Lake Rd at I-210 EB Ramp	-	-	-	-	C	D	-	-	-
W Prien Lake Rd at I-210 WB Ramp	-	-	-	-	C	D	-	-	-
Nelson Rd at I-210 EB Ramp	A	C	C	-	B	B	C	D	D
Nelson Rd at I-210 WB Ramp	E	F	B	-	C	C	C	C	C
I-210 EB Turnaround at Nelson WB Ramp	-	-	-	-	-	-	-	C	C
Nelson Rd at Cagle Ln/ W Prien Lake Rd	C	E	-	D	-	-	C	-	C
Nelson Rd at Avenue L'Auberge/ W Prien Lake Rd	-	-	D	B	C	C	-	C	A
Lake St at I-210 EB Ramp	D	D	D	D	D	D	D	D	D
Lake St at I-210 WB Ramp	C	E	D	D	D	D	D	D	D
Lake St at W Prien Lake Rd	E	F	F	F	F	F	F	F	F
Nelson Rd at Sale Rd	D	F	E	F	F	F	F	F	F

Summary Results of Unsignalized Analyses

	Existing	No Build	Alt 2	Alt 4	Alt 7	Alt 7a	Alt 16a	Alt 21b Option 1	Alt 21b Option 2
Cove Ln at W Prien Lake Rd	F	F	-	-	-	-	-	-	-
Cove Ln at I-210 EB	-	-	-	-	-	-	-	D	D
Cove Ln at I-210 WB	-	-	-	-	-	-	C	E	E
Ameristar Dr at I-210 WB	-	-	-	-	-	-	A	-	-
L'Auberge Ave at Site Dr 1	-	F	-	-	-	-	-	-	-
L'Auberge Ave at Sam's Club	A	A	A	A	A	B	A	A	A
L'Auberge Ave at L'Auberge Blvd	A	B	B	B	-	-	A	A	A
Nelson Rd at Cagle Ln	-	-	-	-	-	-	-	-	-
Nelson Rd at Target Dr 1	B	D	F	D	E	D	-	E	-
Nelson Rd at Target Dr 2	B	D	F	D	E	D	C	E	C
Nelson Rd at Target Dr 3	B	D	F	D	E	D	C	E	C
Nelson Rd at Sam's Club	B	F	F	F	F	F	E	F	E
Nelson Rd at L'Auberge Blvd/ W Prien Lake Rd	A	F	-	-	-	-	B	-	-
College at I-210 EB Ramp	A	D	D	D	D	D	D	D	D
Holly Hill at W Prien Lake Rd	D	F	F	F	F	F	F	F	F
Nelson Rd at Sallier St	A	A	A	A	A	A	A	A	A

Summary Results of Roundabout Analyses

	Existing	No Build	Alt 2	Alt 4	Alt 7	Alt 7a	Alt 16a	Alt 21b Option 1	Alt 21b Option 2
Old W Prien Lake Rd at Relocated W Prien Lake Rd	-	-	B	-	B	B	-	B	-
Relocated W Prien Lake Rd at W Prien Lake Rd South of I-210	-	-	-	-	A	A	-	-	-
L'Auberge Ave at Site Drive 1	-	-	A	B	A	A	A	A	A
W Prien Lake Rd at L'Auberge Ave	-	-	-	-	A	A	-	-	-
Ameristar Dr at Site Drive 1	-	-	-	-	-	-	A	A	A
Cove Ln at W Prien Lake Rd	-	-	-	-	-	-	-	B	B

Summary Results of Two-Lane Segment Analyses

	Existing	No Build	Alt 2	Alt 4	Alt 7	Alt 7a	Alt 16a	Alt 21b Option 1	Alt 21b Option 2
Cove Ln south of W Prien Lake Rd	D	E	E	E	E	E	E	E	E
W Prien Lake Rd from Cove Ln to Nelson Rd	C	F	-	-	-	-	B	C	C
Site Dr 1 west of Ameristar Dr	-	-	-	-	-	-	B	B	B
Site Dr 1 east of Ameristar Dr	-	B	B	B	B	B	A	A	A
W Prien Lake Rd from Nelson Rd to Holly Hill Rd	D	D	D	D	D	D	D	D	D
W Prien Lake Rd from Holly Hill Rd to Lake St	D	E	E	E	E	E	E	E	E
Sallier St east of Nelson Rd	A	D	D	D	D	D	D	D	D

Summary Results of Multi-Lane Segment Analyses

W Prien Lake Rd from Cove Ln to Nelson Rd	Existing	No Build	Alt 2	Alt 4	Alt 7	Alt 7a	Alt 16a	Alt 21b Option 1	Alt 21b Option 2
Eastbound (W Prien Lake Rd)	-	-	C	C	B	B	-	-	-
Westbound (W Prien Lake Rd)	-	-	A	A	B	B	-	-	-
Nelson Rd south of W Prien Lake Rd									
Northbound (Nelson Rd)	C	D	D	D	D	D	D	D	D
Southbound (Nelson Rd)	C	D	D	D	D	D	D	D	D
Nelson Rd north of L'Auberge Blvd									
Northbound (Nelson Rd)	-	B	B	B	B	B	B	B	B
Southbound (Nelson Rd)	-	B	B	B	B	B	B	B	B
I-210 Frontage Rd from Cove Ln to Nelson Rd									
Eastbound (I-210 Frontage Rd)	-	-	-	-	A	A	A	-	-
Westbound (I-210 Frontage Rd)	-	-	-	-	B	B	A	-	-
Lake St south of I-210									
Eastbound (Lake St)	B	B	B	B	B	B	B	B	B
Westbound (Lake St)	B	B	B	B	B	B	B	B	B
Lake St north of W Prien Lake Rd									
Eastbound (Lake St)	B	C	C	C	C	C	C	C	C
Westbound (Lake St)	B	A	A	A	A	A	A	A	A

Summary Results of Freeway Segment Analyses

I-210 from Cove Ln to Nelson Rd	Existing	No Build	Alt 2	Alt 4	Alt 7	Alt 7a	Alt 16a	Alt 21b Option 1	Alt 21b Option 2
Eastbound (I-210)	C	D	D	D	-	-	C	D	D
Westbound (I-210)	B	E	E	E	-	-	C	C	C
I-10 west of I-210									
Eastbound (I-10)	D	E	E	E	E	E	E	E	E
Westbound (I-10)	C	E	E	E	E	E	E	E	E
I-10 east of I-210									
Eastbound (I-10)	B	C	C	C	C	C	C	C	C
Westbound (I-10)	B	C	C	C	C	C	C	C	C
I-210 east of I-10									
Eastbound (I-210)	C	E	E	E	E	E	E	E	E
Westbound (I-210)	C	E	E	E	E	E	E	E	E
I-210 west of Lake									
Eastbound (I-210)	C	D	D	D	D	D	D	D	D
Westbound (I-210)	C	D	D	D	D	D	D	D	D
I-210 east of Lake									
Eastbound (I-210)	B	C	C	C	C	C	C	C	C
Westbound (I-210)	B	C	C	C	C	C	C	C	C

Summary Results of Merge Analyses

	Existing	No Build	Alt 2	Alt 4	Alt 7	Alt 7a	Alt 16a	Alt 21b Option 1	Alt 21b Option 2
On-Ramp: I-210 EB east of Cove Ln	-	-	-	-	-	-	-	C	C
On-Ramp: I-210 EB east of Nelson Rd	C	D	D	D	D	D	D	D	D
On-Ramp: I-210 WB west of Nelson Rd	B	D	D	D	D	D	-	-	-
On-Ramp: I-210 WB west of Cove Ln	-	-	-	-	-	-	D	D	D
On-Ramp: I-10 EB east of I-210	B	C	C	C	C	C	C	C	C
On-Ramp: I-210 EB east of I-10	C	D	D	D	D	D	D	D	D
On-Ramp: I-210 EB east of Lake St	B	C	C	C	C	C	C	C	C
On-Ramp: I-210 WB west of Lake St	C	D	D	D	D	D	D	D	D
On-Ramp: Sallier St EB east of Nelson Rd	-	B	B	B	B	B	B	B	B

Summary Results of Diverge Analyses

	Existing	No Build	Alt 2	Alt 4	Alt 7	Alt 7a	Alt 16a	Alt 21b Option 1	Alt 21b Option 2
Off-Ramp: I-210 EB west of Cove Ln	C	D	D	D	-	-	D	D	D
Off-Ramp: I-210 EB west of Nelson Rd	B	C	C	C	C	C	-	D	D
Off-Ramp: I-210 WB east of Nelson Rd	B	C	C	C	C	C	C	C	C
Off-Ramp: I-210 Frontage Rd EB east of Cove Ln	-	-	-	-	-	-	B	-	-
Off-Ramp: I-210 Frontage Rd WB west of Nelson Rd	-	-	-	-	-	-	C	-	-
Off-Ramp: I-210 Frontage Rd WB west of Nelson Rd 2	-	-	-	-	-	-	A	-	-
Off-Ramp: I-210 Frontage Rd WB west of Cove Ln	-	-	-	-	-	-	A	-	-
Off-Ramp: I-10 EB west of I-210	B	B	B	B	B	B	B	B	B
Off-Ramp: I-10 WB east of I-210	A	B	B	B	B	B	B	B	B
Off-Ramp: I-210 WB east of I-10	C	E	E	E	E	E	E	E	E
Off-Ramp: I-210 EB west of Lake St	C	D	D	D	D	D	D	D	D
Off-Ramp: I-210 WB east of Lake St	C	D	D	D	D	D	D	D	D
Off-Ramp: Nelson Rd NB south of Sallier St	-	B	B	B	B	B	B	B	B
Off-Ramp: Sallier St WB east of Nelson Rd	-	B	B	B	B	B	B	B	B

Summary Results of Weave Analyses

	Existing	No Build	Alt 2	Alt 4	Alt 7	Alt 7a	Alt 16a	Alt 21b Option 1	Alt 21b Option 2
I-210 Frontage Rd EB west of Cove Ln	-	-	-	-	-	-	B	-	-
I-210 Frontage Rd EB east of Cove Ln	-	-	-	-	-	-	B	-	-
I-210 EB from Cove Ln to Nelson Rd	-	-	-	-	-	-	C	-	-
I-210 Frontage Rd EB west of Nelson Rd 1	-	-	-	-	-	-	C	-	-
I-210 Frontage Rd EB west of Nelson Rd 2	-	-	-	-	-	-	B	-	-
I-210 Frontage Rd WB west of Nelson Rd	B	D	-	D	-	-	C	B	B
I-210 WB from Nelson Rd to Cove Ln	-	-	-	-	-	-	D	C	C
I-210 Frontage Rd WB east of Cove Ln	-	-	-	-	-	-	A	-	-
I-210 Frontage Rd WB west of Cove Ln	-	-	-	-	-	-	B	-	-

1. Alternative 21b is the Selected Alternative and is the Preferred Alternative identified in the Draft EA with the addition of the roundabout as discussed in Section 2.3.6. Alternative 21b includes Option 2 including the relocation of W Prien Lake Road east and north of Prien Lake Plaza.

I-210 – COVE LANE / NELSON ROAD
INTERCHANGE IMPROVEMENTS
S.P. NO.: H.010151.2 / F.A.P. NO.: H.010151
CALCASIEU PARISH, LOUISIANA

Summary of Detailed Traffic Analyses for Six Build Alternatives
Analysis Year - 2041

I-210 Interchange Justification Report, Step 8 Document
Cove Lane to Nelson Road. ABMB Inc., September 2012.

FIGURE 2

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Configuration Layout

Lake Charles, Louisiana

I-210 Cove Lane to Nelson Rd.
Improve Existing Network
September 10, 2012

Figure 3

Alternate 2

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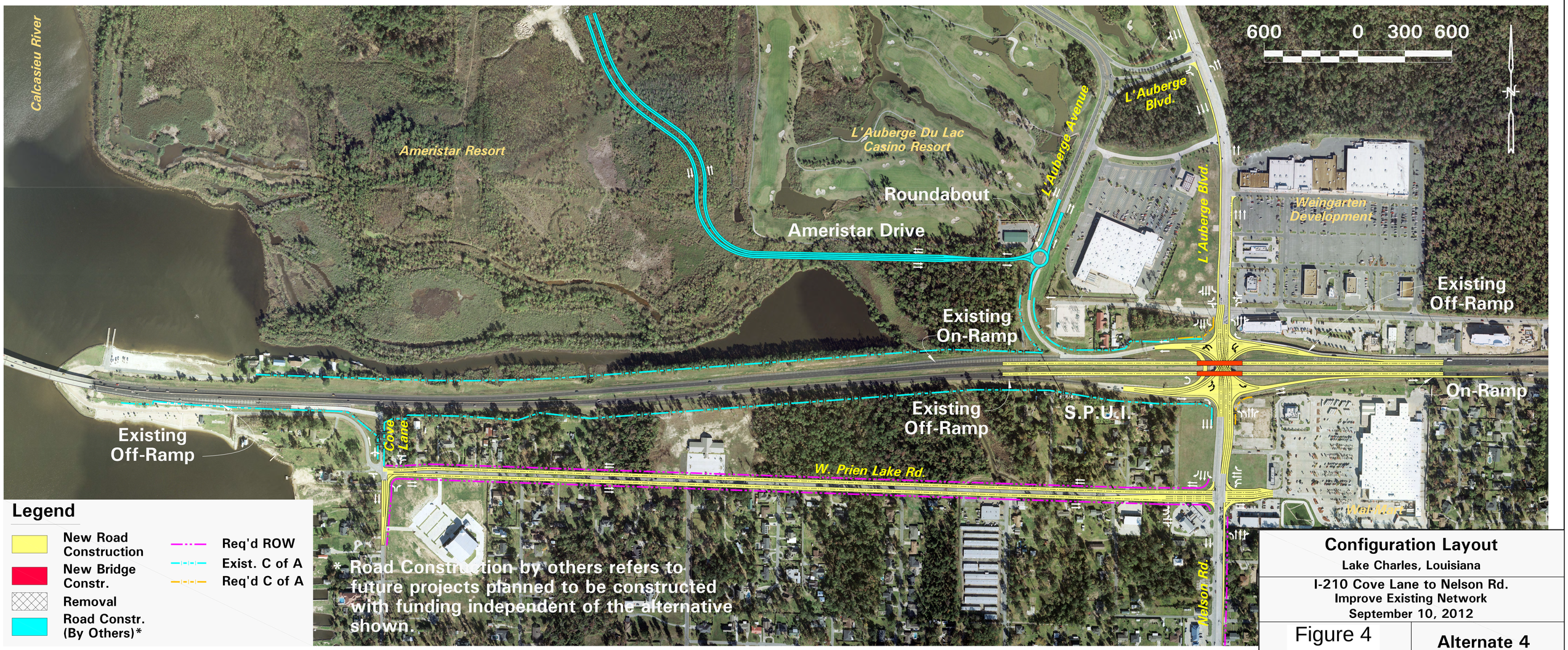

Configuration Layout

Lake Charles, Louisiana

I-210 Cove Lane to Nelson Rd.
Improve Existing Network
September 10, 2012

Figure 4

Alternate 4

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Calcasieu River
Ameristar Resort
L'Auberge Du Lac Casino Resort
Future Rd. Extension
600 0 300 600
Roundabout
Relocated W. Prien Lake Road
Relocated W. Prien Lake Road
Relocated W. Prien Lake Rd.
Roundabout
Ameristar Drive
Weingarten Development
Sam's Club
Cagle Ln.
L'Auberge Blvd.
Off-Ramp
Roundabout
Relocated I-210 On-Ramp
Interstate 210
Remove On & Off-Ramp & Turnaround Overpass
On-Ramp
Relocated I-210 Off-Ramp
Cove Lane
Remove Cove Lane Off-Ramp
W. Prien Lake Rd.
Roundabout
Nelson Road
Nelson Rd. Configuration (I-210)
Legend
New Road Construction
New Bridge Constr.
Removal
Road Constr. (By Others)*
Req'd ROW
Exist. C of A
Req'd C of A
Retaining Wall
* Road Construction by others refers to future projects planned to be constructed with funding independent of the alternative shown.
Configuration Layout
Lake Charles, Louisiana
I-210 Cove Lane to Nelson Rd.
Modified I-210 Access
September 10, 2012
Figure 5
Alternate 7

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Configuration Layout

Lake Charles, Louisiana

I-210 Cove Lane to Nelson Rd.
Modified I-210 Access
September 10, 2012

Figure 6

Alternate 7a

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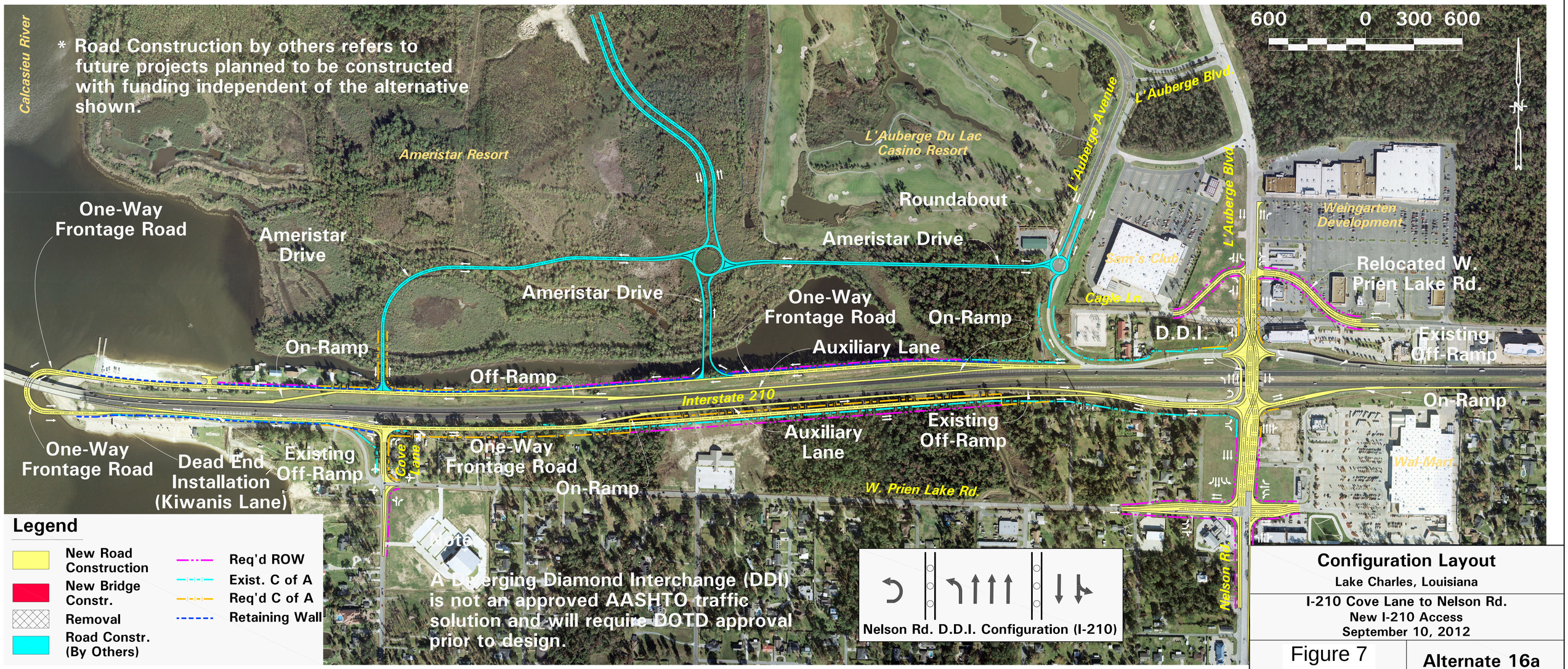

Configuration Layout

Lake Charles, Louisiana

I-210 Cove Lane to Nelson Rd.
New I-210 Access
September 10, 2012

Figure 7

Alternate 16a

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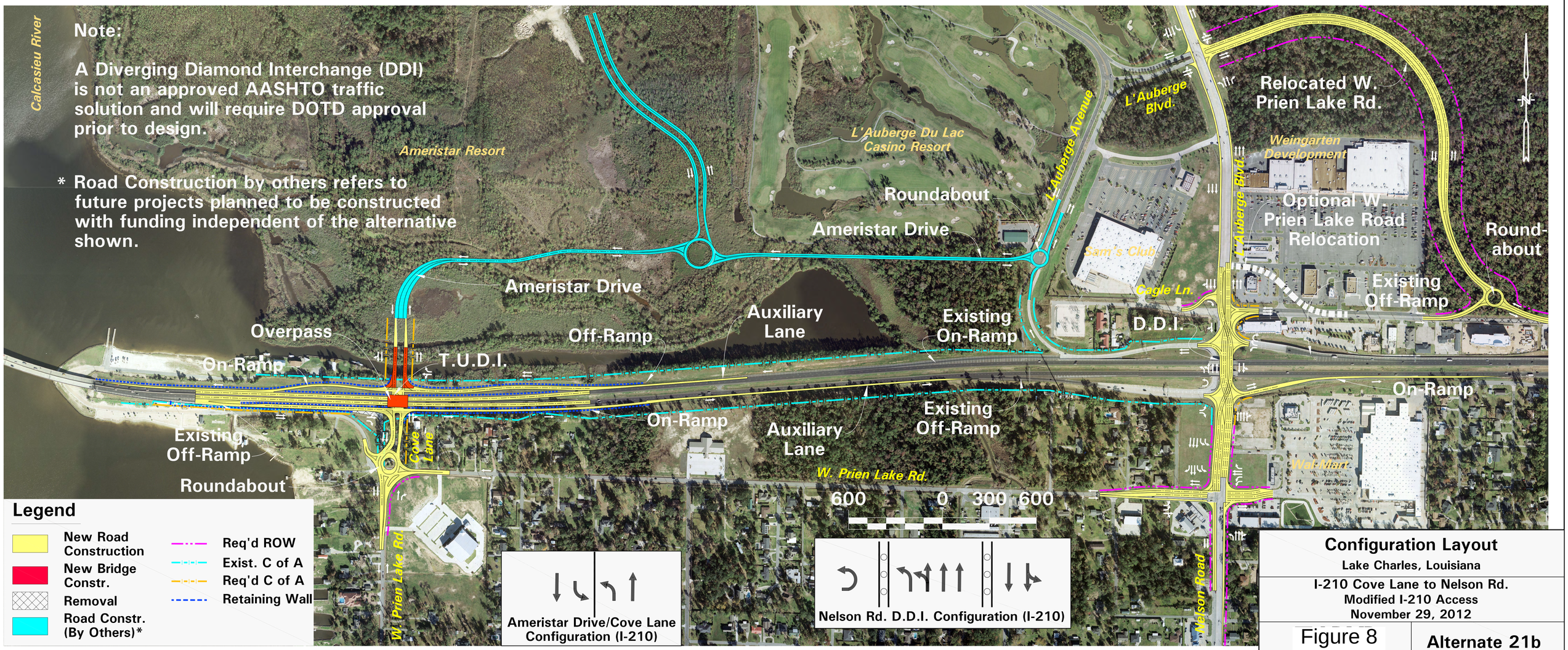

Configuration Layout

Lake Charles, Louisiana

I-210 Cove Lane to Nelson Rd.
Modified I-210 Access
November 29, 2012

Figure 8

Alternate 21b

SELECTED ALTERNATIVE

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Alternative 2 (Figure 3) proposes an I-210 westbound loop ramp at Nelson Road, relocation of West Prien Lake Road to the east and north of Prien Lake Plaza on the north side of I-210, and widening of West Prien Lake Road to a four-lane divided roadway with a raised median south of I-210. The widening of West Prien Lake Road is necessary in order to provide an acceptable LOS along the roadway.

Alternative 4 (Figure 4) proposes to improve the existing I-210 diamond interchange at Nelson Road by converting it to a Single Point Urban Interchange, which uses one traffic signal instead of two to accommodate ramp movements. This interchange is designed to improve traffic flow and will require reconstruction of the I-210 overpass bridges and widening of West Prien Lake Road to a four-lane divided roadway with a raised median south of I-210. The widening of West Prien Lake Road is necessary in order to provide an acceptable LOS along the roadway.

Alternative 7 (Figure 5) proposes to modify the existing diamond interchange at Nelson Road into a split diamond interchange with L'Auberge Avenue, a new I-210 overpass, and Nelson Road widening. This alternative includes the extension of L'Auberge Avenue south across I-210 ending at West Prien Lake Road with a roundabout intersection and closure of the I-210 Cove Lane exit. Widening of West Prien Lake Road to a four-lane divided roadway with a raised median south of I-210 is proposed. The widening of West Prien Lake Road is necessary in order to provide an acceptable LOS along the roadway. This alternative includes the relocation of West Prien Lake Road to the east and north of Prien Lake Plaza on the north side of I-210.

Alternative 7a (Figure 6) proposes the same improvements as **Alternative 7** except it uses the existing I-210 overpass without widening Nelson Road. West Prien Lake Road is proposed to be widened to a four-lane divided roadway with a raised median on the south side of I-210. The widening of West Prien Lake Road is necessary in order to provide an acceptable LOS along the roadway.

Alternative 16a (Figure 7) proposes use of the existing I-210 overpass and widening of Nelson Road in a divergent diamond interchange design. This innovative design eliminates conflicts with left turns onto I-210 by shifting traffic to the left-hand travel lane. It also includes construction of one-way frontage roads between Cove Lane and Nelson Road on the north and south sides of I-210, relocation of West Prien Lake Road to the east and north of Prien Lake Plaza, and relocation of West Prien Lake Road to align with Cagle Lane on the north side of I-210.

Alternative 21b (Figure 8) proposes use of a diverging diamond interchange design at Nelson Road and construction of a tight urban diamond interchange at Cove Lane. This interchange design minimizes ROW needed for construction. Cove Lane will be extended north under a new overpass for I-210, and West Prien Lake Road will be relocated to the east and north of the Prien Lake Plaza on the north side of I-210.

Alternative 21b includes an option to relocate West Prien Lake Road through the parking lot of Prien Lake Plaza on the north side of I-210. This option is referred to as 21b, Option 2.

The **No Build Alternative** would not involve construction of proposed improvements. The **No Build Alternative** would not require monetary expenditures at the local, state, or federal levels and would avoid impacts to the built and natural environments.

2.3.1 Alternative Studies Outreach

Federal and state agencies, local officials, and key stakeholders were invited to participate in a September 18, 2012, key stakeholders/officials meeting to review preliminary analysis results for the six build alternatives. The public was invited to participate in a public meeting also held on September 18, 2012. Details of these meetings are discussed in more detail in **Section 4** of this Environmental Assessment (EA).

Seventy-eight persons registered their attendance at the meetings held on September 18, 2012. One verbal comment and 155 written comments were received following these meetings. A petition opposing the closing of LaFleur Park was received which contained 177 signatures. Based on comments received, traffic congestion is the primary transportation/traffic problem experienced. Unexpected or long delays was the second concern noted in comments, followed by lack of alternate routes. The full record of this public meeting is available at LADOTD Headquarters in Baton Rouge, Louisiana, and is incorporated into this EA by reference.

2.3.2 Access Review Board

The IJR process was initiated in July 2011 in accordance with the steps outlined in the Policy. A draft IJR was submitted to the LADOTD Access Review Board (ARB) in August 2012. The ARB reviewed the IJR submittal. Comments were addressed and a final IJR was submitted to the ARB in September 2012 which included a recommendation of **Alternative 21b** for approval. The ARB submitted their recommendation to the LADOTD Secretary. Correspondence from the Secretary to the FHWA dated October 8, 2012 (**Appendix A**) indicates **Alternative 21b** as the Preferred Alternative. This correspondence also recommended full construction of the Cove Lane interchange in an initial first phase (Phase I of implementation, followed by further evaluation of traffic patterns at Nelson Road to ensure that the best solution is implemented). This re-evaluation is to take place after construction is completed at Cove Lane and I-210. At this time, Phase II would be considered for implementation and would include I-210/Nelson Road interchange improvements and possible realignment of West Prien Lake Road north and east of Prien Lake Plaza.

2.3.3 Preliminary Environmental Impact Analysis

The following resources were evaluated for each of the alternatives.

- Commercial and Residential Property (Acres) – Land Only
- Commercial and Residential Property (Number) – Structures
- 100-year Floodplains (Acres)

- Wetlands and Waters (Acres)
- Archaeological and Historical Resources (Number)
- Hazardous Materials Sites, Underground Storage Tanks (USTs) (Number)
- Pipelines, Oil & Gas, and Water Wells (Number)
- Noise Sensitive Receptors (Number)
- Transportation Utility (Traffic Criteria)
- Construction Cost (Dollars)

Figure 9 presents a comparison of **Alternatives 2, 4, 7, 7a, 16a**, and **21b** with respect to each of these resources. **Alternative 4** has the lowest non-commercial land only impacts with 4 and **Alternatives 7** and **7a** have the greatest impacts with 29. Non-commercial is defined as including undeveloped, residential, and church properties**. Alternatives 4** and **21b** have the lowest commercial land-only impacts with 1 and **Alternatives 2** and **16a** have the greatest with 3.

Alternative 21b has the lowest residential structures impacts with 3 and **Alternatives 2, 4, 7, 7a,** and **16a** have the greatest with 6. **Alternative 21b** has the lowest commercial structures impacts with 1 and **Alternatives 2** and **16a** have the greatest with 4. Detailed location of structures relative to construction will be performed during final design.

Alternative 4 has the lowest floodplain impacts with 1 acre and **Alternatives 7** and **7a** have the greatest with 4 acres. **Alternative 4** has the lowest wetland impacts with 0 acres and **Alternatives 7** and **7a** have the greatest with 5 acres. **Alternative 21b** has 1.5 acres of wetland impacts for Phase I and 4 acres of wetland impacts for Phase II. There are no impacts to historic or cultural resources for any of the alternatives.

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I-210 Cove Lane / Nelson Road Interchange Improvement Project
Impacts Summary

RESOURCE	Alternate 2	Alternate 4	Alternate 7	Alternate 7a	Alternate 16a	Alternate 21b (Selected Alternative)[1]
Property Impacts - Land Only (acres)						
Non-Commercial (undeveloped, residential, church)	22	4	29	29	8	21
Commercial / Business	3	1	2	2	3	1
Structure Impacts (number of structures) [2]						
Residential	5	5	6	6	6	3
Commercial / Business	4	2	2	2	4	1
Natural Resources (acres)						
Changes to 100-Yr Floodplain	2	1	4	4	3	3
Wetlands and Waters	4	0	5	5	3 [3]	1.5 – 5.5 [4]
Cultural Resources	***No Effect / No Structures Eligible***					
Known Archaeology Sites: Number	0	0	0	0	0	0
Standing Structures greater than 50 Years Old: Number	44	44	44	44	21	21
Hazardous Materials/UST Sites Within Project Study Area						
Number	10	7	8	9	3	5
Number of Sites Roadway Improvements May Impact	3	3	3	3	2	2
Water Wells Located within Project Study Area [5]	2	4	4	2	2	1
Oil and Gas Wells/Pipelines Located in Project Study Area	***No Oil & Gas Wells / No Pipelines***					
Noise Sensitive Receptors (Total Receptors)	**162**	**164**	**163**	**163**	**166**	**166**
Total Number of Impacts	41	43	38	38	29	34
Preliminary Design & Construction Cost Estimates from IJR [6] (Million Dollars)	$57.5	$59.5	$83	$75	$57.2	$64.4
Preliminary Right-of-Way (ROW) / Relocation Cost Estimates from IJR (Million Dollars)	$17.5	$12.5	$16	$17	$12.8	$4.6
Preliminary Construction Cost Estimates from IJR - TOTAL (Million Dollars)	$75	$72	$99	$92	$70	$69
ROW /Relocation Cost Estimate from Conceptual Stage Relocation Plan [7] (Million Dollars)	NE [8]	NE	NE	NE	NE	$7.6

Transportation Metric Summary

TRANSPORTATION METRIC	Alternate 2	Alternate 4	Alternate 7	Alternate 7a	Alternate 16a	Alternate 21b (Selected Alternative) [1]	Alternate 21b (Option 2) [9]
Overall Traffic Issues							
Traffic Operations	A [10]	A	A	A	A	A	A
Network Connectivity	Low	Low	Moderate	Moderate	High	High	High
W Prien Lake Road Relocation							
Signal Spacing	A	UA	A	A	UA	A	UA
Queue Lengths	A	UA	A	A	UA	A	UA
Access Impacts	A	-	A	A	UA	A	UA
Cove Lane Interchange Completion/ Connectivity Issues							
Level of Traffic on W Prien Lake Road between Cove and Nelson	High	High	High	High	Low	Low	Low

LEGEND/NOTES:

Indicates Least Impact for Resource Evaluated

Indicates Acceptability for Metric Evaluated

1. The Selected Alternative is the Preferred Alternative identified in the Draft EA with the addition of the roundabout as discussed in Section 2.3.6.
2. Impact area/number based on sites within Study Area ROW
3. Includes 1.2 Acres of fill in open waters
4. Wetland impact dependent upon implementation of Phase I and Phase II of Preferred Alternative.
   Wetland Impacts: Phase I – 1.5 Acres; Phase II – 4 Acres.
5. Water wells located within developed areas/roadways
6. Step 8 IJR, ABMB (now STANTEC), September 2012
7. Conceptual Stage Relocation Plan, ARCADIS, November 2012
8. NE – Not Evaluated
9. Option 2 relocation of W Prien Lake Road at Prien Lake Plaza
10. UA = Unacceptable; A = Acceptable

FHWA

DOTD

I-210 – COVE LANE / NELSON ROAD
INTERCHANGE IMPROVEMENTS
S.P. NO.: H.010151.2 / F.A.P. NO.: H.010151
CALCASIEU PARISH, LOUISIANA

IMPACTS MATRIX

FIGURE
9

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Alternative 16a has the lowest hazardous materials/UST sites with 3 sites identified within the project Study Area and **Alternative 2** has the greatest with 10. **Alternatives 16a** and **21b** have the lowest number of sites that may be impacted with required ROW acquisition and **Alternatives 2, 4, 7,** and **7a** have the greatest with 3.

Alternative 16a has the lowest number of noise sensitive receptors that may be impacted with 29 followed by **Alternative 21b** with 34. **Alternative 4** has the greatest number of noise sensitive receptors that may be impacted with 43. Noise barriers have been determined to not be reasonable or feasible for any of the alternatives.

The transportation metric summary indicates that **Alternative 21b** meets the overall transportation and traffic criteria resulting in an acceptable metric evaluation for traffic operations, signal spacing, queue length, and access impacts. In addition, network connectivity is high and traffic levels low between Cove Lane and Nelson Road for **Alternative 21b**.

2.3.4 Preferred Alternative

As a result of the comprehensive resources evaluation, transportation and traffic studies conducted in the IJR, and involvement of the public, local officials, and federal and state resource agencies, sufficient information and public opinion exists to identify **Alternative 21b** as the Preferred Alternative. **Alternative 21b** includes the relocation of West Prien Lake Road to the north and east of Prien Lake Plaza. In the following sections of this EA, the Preferred Alternative or **Alternative 21b** will refer to this alternative as just described. The option to relocate West Prien Lake Road through the parking lot of Prien Lake Plaza on the north side of I-210, referred to as 21b, Option 2, is not an acceptable alternative and is excluded from incorporation as the Preferred Alternative.

In summary, **Alternative 21b**:

- Satisfies the stated Purpose and Need for the project to improve access and mobility of people and goods throughout the Study Area, relieve future congestion on area roadways, support planned commercial and residential growth, particularly north of I-210, and improve traffic safety;

- Includes roadway improvements that will accommodate existing and projected future traffic demand along the I-210 corridor and between Cove Lane and Nelson Road;

- Was developed within LADOTD and FHWA policies and standards;

- Has the lowest commercial property and structures impacts;

- Has the lowest residential structures impacts;

- Has the third highest wetland impacts for Phase II construction implementation;

- Has the lowest construction cost; and

- Is the publicly preferred alternative.

The identification of the Preferred Alternative satisfies, to the fullest extent possible, the objectives of NEPA. Impacts from **Alternative 21b** were avoided where possible and minimized to the greatest extent practicable.

In addition, as noted in **Section 2.3.2**, **Alternative 21b** is LADOTD's recommended IJR alternative. Additional ROW required for this alternative is less than that required for the other alternatives. The project is proposed to be implemented in two phases. Phase I will include the full access interchange proposed at I-210 and Cove Lane followed by improvements at the Nelson Road interchange, West Prien Lake Road relocation, and other surface street improvements being constructed in a separate and later phase identified as Phase II.

2.3.5 Public Hearing

The Draft EA, which identified **Alternative 21b** as the Preferred Alternative, was distributed to federal and state agencies, local officials, the Calcasieu Parish Library, IMCAL, Calcasieu Parish Police Jury, and LADOTD District 07 offices on November 12, 2012. The Draft EA was also made available for public viewing on the LADOTD website.

The public was invited to participate in a public hearing held on December 13, 2012. Details of the public hearing are discussed in more detail in **Section 4** of this EA. Fifty-eight persons registered their attendance at the public hearing held on December 13, 2012, along with 3 public officials and 20 members of the project consultant team which included FHWA and LADOTD personnel. The full record of this public hearing is available at LADOTD Headquarters in Baton Rouge, Louisiana, and is incorporated into this EA by reference. Twenty-seven written comments were received and 11 verbal comments were recorded by the transcriber at the public hearing. Four of the written comments were repeated to the transcriber during the public hearing. **Section 4** presents a summary of each comment received and a response.

2.3.6 Selected Alternative

The final IJR was submitted to the ARB in September 2012 and subsequent correspondence from the Secretary to the FHWA dated October 8, 2012 (**Appendix A**) indicates **Alternative 21b** as the Preferred Alternative. This correspondence also recommended full construction of the Cove Lane interchange in an initial first phase (Phase I of implementation, followed by further evaluation of traffic patterns at Nelson Road to ensure that the best solution is implemented). Subsequent to this recommendation, a request was made to incorporate a roundabout at West Prien Lake Road and Cove Lane. It was determined that this design element was viable and has been included in **Alternative 21b.**

Public concern was expressed by 20 commenters for bicycle and pedestrian facilities within the project area. The *City of Lake Charles Bicycle and Pedestrian Master Plan* (May 16, 2012) proposes sidewalk

improvements along West Prien Lake Road and bicycle lane improvements along Nelson Road. Currently, the Master Plan does not include bicycle and pedestrian improvements along Cove Lane.

Initial design and implementation of **Alternative 21b** Phase I may not include construction of bicycle and pedestrian improvements. However, understanding that future planning may include bicycle and pedestrian improvements at Cove Lane, Phase I will allow for incorporation of bicycle and pedestrian facilities at West Prien Lake Road and Cove Lane continuing north along Cove Lane across Cline Canal. Nelson Road pedestrian and bicycle improvements will be evaluated and facilities incorporated during Phase II. Because Phase II may be modified after being re-evaluated, the extent of bicycle and pedestrian improvements for Phase II is uncertain. Bicycle and pedestrian improvements for both phases will be evaluated in accordance with LADOTD's Complete Street Policy and in coordination with the City of Lake Charles.

Two commenters expressed concern regarding ingress/egress from their driveways onto West Prien Lake Road south of Cove Lane. Inclusion of the roundabout at the West Prien Lake Road - Cove Lane intersection is intended to improve intersection operation and traffic flow.

Two individuals expressed a need for a frontage road along the south side of I-210 between Cove Lane and Nelson Road. Frontage roads are intended to function as a complete roadway system, providing full access to and from the interstate. Including a frontage road on the south side of I-210 only, as a part of **Alternative 21b**, does not meet FHWA interstate access policy. It was determined that including a new partial frontage road at this location was not viable.

No other alternative revisions to improve service or constructability or to further minimize impacts to sensitive environmental areas were identified. As a result of the comprehensive resources evaluation, transportation and traffic studies conducted in the IJR, and involvement of the public, local officials, and federal and state resource agencies, sufficient information and public opinion exists to identify **Alternative 21b** as the **Selected Alternative**.

In summary, **Alternative 21b**:

- Satisfies the stated Purpose and Need for the project to improve access and mobility of people and goods throughout the Study Area, relieve future congestion on area roadways, support planned commercial and residential growth, particularly north of I-210, and improve traffic safety;

- Includes roadway improvements that will accommodate existing and projected future traffic demand along the I-210 corridor and between Cove Lane and Nelson Road;

- Was developed within LADOTD and FHWA policies and standards;

- Has the lowest commercial property and structures impacts;

- Has the lowest residential structures impacts;

- Has the third highest wetland impacts for Phase II construction implementation;
- Has the lowest construction cost; and
- Is the publicly preferred alternative.

The identification of the **Selected Alternative** satisfies, to the fullest extent possible, the objectives of NEPA. Impacts from **Alternative 21b** were avoided where possible and minimized to the greatest extent practicable. Although the **Selected Alternative** does not have the least wetland impact, the overall least human and environmental impacts occur with implementation of the **Selected Alternative**. It is determined that there is no practicable alternative to the proposed construction in wetlands and the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.

In addition, as noted in **Section 2.3.2**, **Alternative 21b** is LADOTD's recommended IJR alternative. Additional ROW required for this alternative is less than that required for the other alternatives. The project is proposed to be implemented in two phases. Phase I will include the full access interchange proposed at I-210 and Cove Lane followed by re-evaluation of traffic patterns at Nelson Road to ensure that the best solution is implemented. Phase II improvements at the Nelson Road interchange, West Prien Lake Road relocation, and other surface street improvements will be constructed in this separate and later phase.

3. Existing Conditions and Impacts

This section provides an analysis of the potential beneficial or adverse impacts of the project's **Preferred** Alternative and **No Build Alternative**. The project is evaluated with respect to transportation, social, economic, cultural, physical, natural, and biological resources. This section discusses direct impacts (loss of a resources), indirect impacts (changes in function or quality of a resource), where feasible, and cumulative impacts (historical, project related, and foreseeable impacts).

3.1 Community Resources

3.1.1 Land Use and Community Features

The project Study Area comprises approximately 140 acres. Land use in the Study Area is predominantly transportation with single-family residential and commercial land use located along existing parish and state roadways. I-210 traverses the Study Area from east to west and is bounded by residential and recreational land use to the south of I-210 along West Prien Lake Road and Kiwanis Lane. Commercial and entertainment land use is located to the north of I-210 along Nelson Road, West Prien Lake Road, Cagle Lane, and L'Auberge Avenue. Commercial land use is predominant within the northeast and southeast quadrants of the Nelson Road – I-210 interchange. Approximately 15 percent of the Study Area is comprised of undeveloped lands, which include woodlands, wetlands, and surface waters (**Figure 10**).

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Future Development

L'Auberge Casino & Resort

Prien Lake Plaza

Sam's Club

WalMart

Lafleur Park

Prien Lake Park

Cagle Ln
Swanson Ln
Knight Ln
Nelson Rd
Service Road
Service Road
210
210
W Prien Lake Rd
Service Road
Service Road
Kiwanis Ln
Ramp
Cove Ln
W Prien Lake Rd
Arvilla Ln
Adrienne Ln
Lost Ln
Joan St
Heard Rd
Swanson Ln
Knight Ln
Bertha Ln
Chrysler Dr
Pontiac Dr
Holly Hill Rd
N Chateau Cir
S Chateau Cir
Woodland Dr
Elmers Ln
Elmer Ln
Whispering Woods Dr
Covey Ln
Covey Ln
Rustic Ln
Francis Dr
Thomas Ln
Burton Ln
Pin Oak Ct
Pin Oak Ln
Magnolia Ln
Edgewood Ln
Park Dr
Prienwood Dr
Henderson Bayou Rd
Lock Point Dr
Timber Ln
New School Rd
Sarah Ln
Nelson Rd
Debra Ln
Janet Ln
Sandra Ln
Thorn Rd

Legend

Zone
- Business
- Residential
- Church
- Park
- Undeveloped

- Study Area

Impacted Structures
- Business
- Residence

FHWA

LOUISIANA'S ON THE MOVE... DOTD BUILDS THE WAY

I-210 – COVE LANE / NELSON ROAD
INTERCHANGE IMPROVEMENTS
S.P. NO.: H.010151.2 / F.A.P. NO.: H.010151
CALCASIEU PARISH, LOUISIANA

LAND USE RESOURCES

Zoning based on data from City of Lake Charles Public Works Dept.

FIGURE 10

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For the majority of the alternatives, existing roadway ROW or control of access will be utilized for improvements. For some of the alternatives, land will be converted from its present use to transportation use.

The predominant land use within the Study Area is transportation and developed areas comprise approximately 80 percent of the total acreage. Undeveloped lands, which include woodlands with some wetlands, comprise approximately 20 percent.

The predominant land use along and adjacent to the **Selected Alternative** is developed residential, recreation, and commercial lands. Anticipated land use change as a result of construction of the **Selected Alternative** indicates a 15 percent increase in transportation land use or an overall land use change of 6 percent to transportation. This increase is concentrated within the Cove Lane interchange improvements and the relocation of West Prien Lake Road north and east of Prien Lake Plaza.

The **No Build Alternative** would have no impact to land use.

Residential and Business Relocations

Residential and commercial business structures that have the potential to be impacted by all alternatives were identified. Seven residences and four businesses are located within the project Study Area. Six residential structure impacts were identified for **Alternatives 7, 7a,** and **16a;** five residential structure impacts were identified for **Alternatives 2** and **4**; and three residential structure impacts were identified for the **Selected Alternative**. Of these three residential structure impacts identified for the **Selected Alternative**, one structure impact will occur for Phase I construction activities at Cove Lane. The remaining two residential structure impacts may result from implementation of Phase II. Four business structure impacts were identified for **Alternatives 2** and **16a** with two business structure impacts for **Alternatives 4, 7,** and **7a**. One business structure impact was identified for the **Selected Alternative** and may result from implementation of Phase II. **Figure 9** presents and **Figure 10** depicts the structure impacts.

An assessment of available housing within or in proximity to the Study Area was made. A Multiple Listing Service internet search was conducted to determine availability of housing and sale prices. The search returned 45 single-family homes for sale ranging in price from $120,000 to $210,000 (**Table 3**). Additional steps to minimize relocations will be considered during final design.

Table 3. Available Housing within the Study Area

Price Range	Number of Units
$120,000 to $150,000	8
$150,001 to $180,000	25
$180,001 to $210,000	12

Source: Realtor.com (October 2012).

The **No Build Alternative** does not impact any residential, business, or other facility and therefore would not require any relocations.

Economic Environment

Early Lake Charles residents depended on the lush pine and cypress forests for their economic survival. The timber industry led to substantial population and workforce growth after the Civil War as resident mill workers provided lumber for much of the damaged infrastructure in the region and housing for the growing city. Today, industry sectors that contribute the highest employment opportunities include the service industry at 30 percent followed by management, business, science, and arts (25.6 percent); sales and office occupations (24.5 percent); production, transportation, and material moving (10.0 percent); and natural resources, construction, and maintenance (9.60 percent) (U.S. Census Bureau 2012).

Economic impacts related to construction and development of project improvements will include a temporary increase in construction-related employment and will be similar for all alternatives. Reduced congestion, increased accessibility, and alternate travel routes will benefit many area residents.

The **No Build Alternative** would lead to continued and worsened congestion within the Study Area and immediate surrounding area which could have a negative economic impact on employment.

Socioeconomic Resources

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations* (59 Federal Register 7629 1994), requires federal agencies to determine whether a proposed action would have an adverse and disproportionately high impact on minority and/or low-income populations.

Population

Census Bureau Census Tract (Census Tract) 19.01 intersects the project Study Area. Twenty-eight U.S. Census Bureau Census Blocks (Census Blocks) were identified that intersect the Study Area within Census Tract 19.01. The population within the Census Blocks was examined to determine total population and minority and/or low-income population associated with improvements related to all alternatives (**Figure 11**). Census Blocks data were compared with Census Tract level data in order to identify potential disproportionate impacts.

The population within the Study Area is 1,490 persons derived from the number of residents in the Census Blocks that intersect the Study Area. The Census Block population is 44 percent of the Census Tract population, 2 percent of the Lake Charles city population, and 0.8 percent of the Calcasieu Parish population (**Table 4**).

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2025
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2031
2032
2033
1001
1002
1003
1012
1016

210

Prien Lake

Henderson Bayou

W SALE RD

NELSON RD

LAKE ST

REF: U.S. Census Bureau, Census 2010

Legend

- Study Area
- Census Tract 19.01
- 2010 Census Block

FHWA

LOUISIANA'S ON THE MOVE DOTD BUILDS THE WAY

I-210 – COVE LANE / NELSON ROAD
INTERCHANGE IMPROVEMENTS
S.P. NO.: H.010151.2 / F.A.P. NO.: H.010151
CALCASIEU PARISH, LOUISIANA

2010 CENSUS TRACT AND BLOCKS THAT INTERSECT THE PROJECT STUDY AREA

FIGURE
11

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Table 4. Total Population Data

Geographic Area	Population
Louisiana	4,533,372
Calcasieu Parish	192,768
City of Lake Charles	71,993
Census Tract 19.01 – Study Area	3,393
Blocks within Census Tract 19.01	1,490

Source: Source: U.S. Census Bureau, Census 2010 (www.census.gov).
Note: Geographic Area was determined to be the Census Blocks within Census Tract 19.01 that intersect the Study Area.

3.1.2 Minority Populations

The racial and ethnic composition of the population within the Study Area was examined in order to identify the presence or absence of minority populations. Within the Census Blocks that intersect the Study Area, 92.8 percent of the population is identified as White alone and the minority population is 7.2 percent. Total and minority population data are depicted on **Figure 12** and presented in **Table 5**.

The **Selected Alternative** and the **No Build Alternative** would have no disproportionate impact on minority populations.

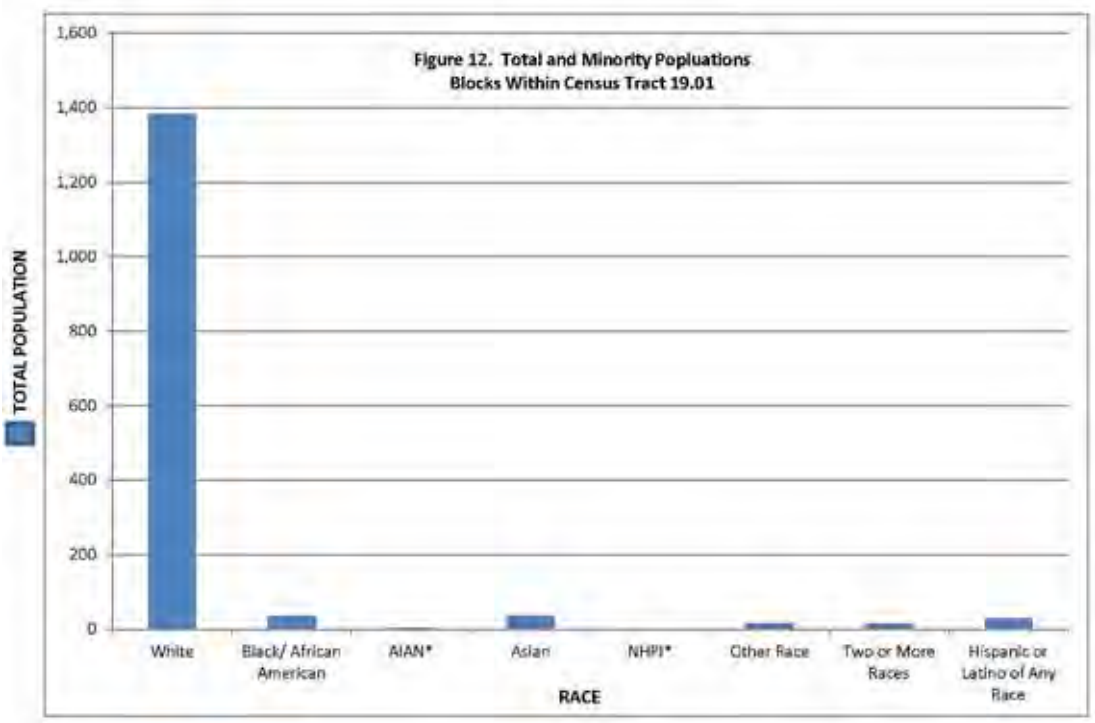

Table 5. Total and Minority Populations

Geographic Area	Total Pop.	Not Hispanic or Latino							Hispanic or Latino of Any Race	Total Minority Pop. (%)
		White	Black/ African American	AIAN*	Asian	NHPI*	Other Race	Two or More Races		
Blocks Within Census Tract 19.01										
Block 1001	0	0	0	0	0	0	0	0	0	0
Block 1002	0	0	0	0	0	0	0	0	0	0
Block 1003	0	0	0	0	0	0	0	0	0	0
Block 1012	691	646	17	2	11	0	4	7	15	6.5
Block 1016	0	0	0	0	0	0	0	0	0	0
Block 2000	6	6	0	0	0	0	0	0	0	0
Block 2001	0	0	0	0	0	0	0	0	0	0
Block 2006	0	0	0	0	0	0	0	0	0	0
Block 2007	0	0	0	0	0	0	0	0	0	0
Block 2008	0	0	0	0	0	0	0	0	0	0
Block 2009	0	0	0	0	0	0	0	0	0	0
Block 2010	0	0	0	0	0	0	0	0	0	0
Block 2011	22	18	0	1	3	0	0	0	0	18.1
Block 2012	22	22	0	0	0	0	0	0	0	0
Block 2013	0	0	0	0	0	0	0	0	0	0
Block 2014	0	0	0	0	0	0	0	0	0	0
Block 2015	0	0	0	0	0	0	0	0	0	0
Block 2016	36	25	1	0	4	0	6	0	1	30.5
Block 2018	0	0	0	0	0	0	0	0	0	0
Block 2020	139	133	0	0	6	0	0	0	4	0
Block 2022	232	218	0	0	6	1	5	2	2	6.0
Block 2023	229	200	12	0	7	0	2	6	5	12.7
Block 2025	46	46	0	0	0	0	0	0	1	0
Block 2029	32	28	4	0	0	0	0	0	0	12.5
Block 2030	1	0	1	0	0	0	0	0	0	100.0
Block 2031	7	7	0	0	0	0	0	0	0	0
Block 2032	27	27	0	0	0	0	0	0	0	0
Block 2033	6	6	0	0	0	0	0	0	0	0
All Block Groups TOTAL	**1,490**	**1,382**	**35**	**3**	**37**	**1**	**17**	**15**	**28**	**7.2**

Geographic Area	Total Pop.	Not Hispanic or Latino							Hispanic or Latino of Any Race	Total Minority Pop. (%)
		White	Black/ African American	AIAN*	Asian	NHPI*	Other Race	Two or More Races		
TOTAL Percent	**100.0**	**92.8**	**2.3**	**0.2**	**2.5**	**0.1**	**1.1**	**1.0**		**7.2**
Census Tract 19.01 TOTAL	**3,140**	**2,922**	**76**	**3**	**87**	**1**	**19**	**32**	**74**	**7.0**
TOTAL Percent	**100.0**	**93.0**	**2.4**	**0.1**	**2.8**	**0.1**	**0.6**	**1.0**		**7.0**

Source: Source: U.S. Census Bureau, Census 2010: QT-P3, Census Summary File 1 (www.census.gov).
Note: Geographic Area was determined to be the Census Blocks within Census Tract 19.01 that intersect the Study Area.
* AIAN - American Indian and Alaska Native, NHPI - Native Hawaiian and Other Pacific Islander.

3.1.3 Low-Income Populations

Census Tract 19.01 represents the demographic area evaluated for low-income populations. The median household income and persons of poverty status were examined in order to identify the presence or absence of low-income populations within the project Study Area.

Table 6 shows the estimated number of households, median household income, and households below the poverty level within Census Tract 19.01. According to the 2006 - 2010 American Community Survey, the median household income for Census Tract 19.01 is $74,167. The poverty level was determined based on the 2012 U.S. Department of Health and Human Services poverty threshold of $23,050 for a family of four. Three percent of households within the project Study Area are below the poverty level.

Neither the **Selected Alternative** nor the **No Build Alternative** would have a disproportionate impact on low-income populations.

Table 6. Median Household Income and Poverty Status (2010)

Geographic Area	2010 Households[(1)]	Median Household Income	Households Below Poverty Level[(2)]	
			Number	Percent
Census Tract 19.01	1,286	$74,167	38	3.0
Census Tract(s) Total	**1,286**	**$74,167**	**38**	**3.0**
Project Area Total	**1,286**	**$74,167**	**38**	**3.0**

Source: U.S. Census Bureau, Census 2010: Summary Tape File 1, 2006-2012 American Community Survey (www.census.gov).
Note: Geographic Area was determined to be the Census Blocks within Census Tract 19.01 that intersect the Study Area.
(1) Total Households within Census Tract 19.01.
(2) Households below the poverty level were determined based on the 2010 Census and 2012 U.S. Department of Health and Human Services poverty threshold of $23,050 for a family of four.

3.1.4 Limited English-Speaking Proficiency

Executive Order 13166, *Improving Access to Services for Persons with Limited English Proficiency* (LEP) (2001), requires federal agencies to work to provide meaningful access to LEP applicants and beneficiaries. Evaluation of 2010 Census data for "Ability to Speak English" was completed for the population 5 years of age and above within the Study Area. The LEP population within the Study Area speaks a variety of languages including Spanish, Creole, French, German, and other Indo-European languages. Of the total population within Census Tract 19.01, 3.3 percent of the people speak English less than "Very Well". The population data for persons that speak English less than "Very Well" are depicted on **Figure 13** and presented in **Table 7**.

Neither the **Selected Alternative** nor the **No Build Alternative** would have a disproportionate impact on LEP populations.

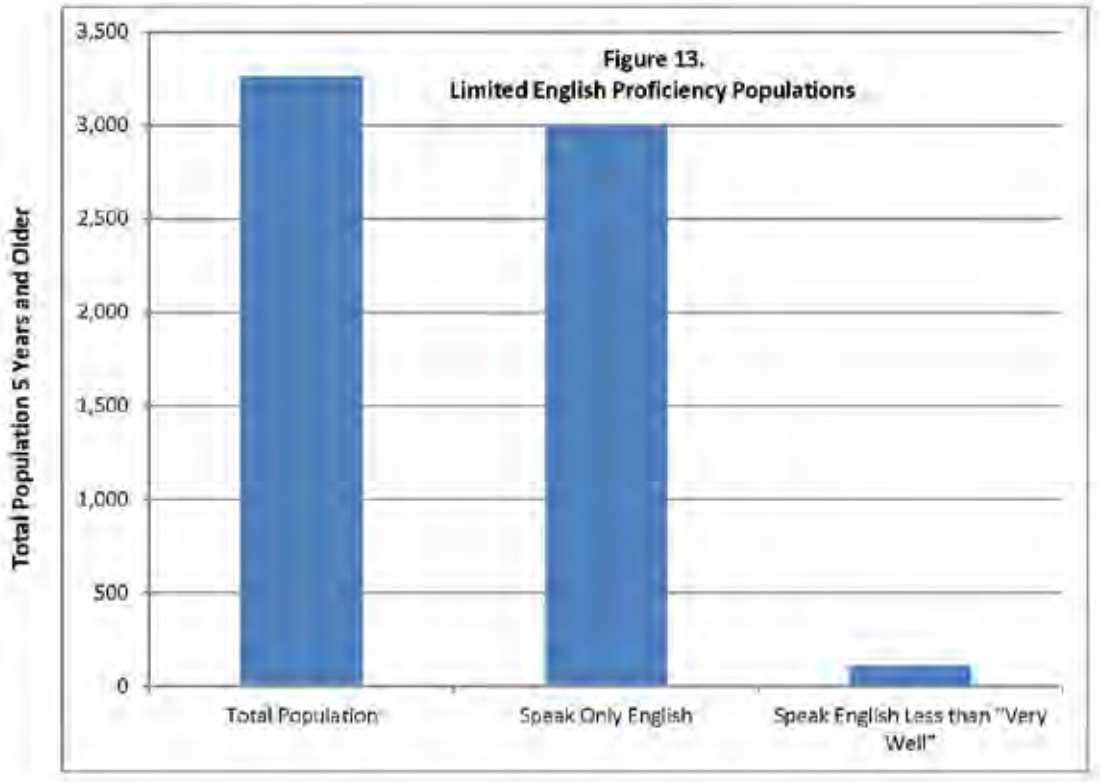

Table 7. Limited English Proficiency (2006 - 2010)

Geographic Area Census Tract	Total Population 5 Years of Age and Above	Speak Only English	Speak English Less than "Very Well"	Percent
Census Tract 19.01	3,303	3,003	110	3.3

Source: U.S. Census Bureau, Census 2010, 2006-2012 American Community Survey B16001 (www.censusgov).
Note: Geographic Area was determined to be the Census Blocks within Census Tract 19.01 that intersect the Study Area.

3.1.5 Environmental Justice

According to data collected from the 2010 Census and a windshield survey of the project Study Area performed in August 2012, no disproportionate effects on minority, low-income, or elderly population groups would be expected as a result from the **Selected Alternative** or **No Build Alternative**. Therefore, no adverse effect to any minority or disadvantaged group would result from the proposed project, and the requirements of Executive Order 12898 are satisfied.

3.2 Natural and Physical Environment

3.2.1 Geology

The **Selected Alternative** and the project Study Area are located within the Gulf Coastal Plain Physiographic Province of Louisiana. Most of the state of Louisiana is underlain by geologically young sedimentary sequences consisting of Quaternary sediments (Louisiana Geological Survey 2012). Approximately 55 percent of Louisiana's surface is occupied by Holocene deposits that include alluvium of the Mississippi, Red, Ouachita, and other rivers and coastal marsh deposits. Approximately 20 percent of the state's surface is occupied by Pleistocene terraces consisting of sand, gravel, and mud. Most of the balance of the state's surface is comprised of Tertiary age strata on the Sabine uplift.

3.2.2 Soils

The project Study Area is located in an area characterized as the Gulf Coast Prairies. Soils range from silt to clay loams with wetness being a limitation for most soils in this physiographic area. The soil types identified along the **Selected Alternative** are characterized by soils located on low ridges and depressional areas and are poorly drained. The soils are categorized within Hydrologic Group D which has very slow infiltration rates, a permanent high water table, and a clay layer near the surface.

Aquents are clay loams that are associated with deposited dredge spoils from construction and maintenance of navigable waterways, are poorly drained, and are subject to frequent flooding. Udifluvents are sandy to clayey soil material that has been excavated from other locations during construction and maintenance of navigable waterways. These soils have no identifiable layers and are moderately to poorly drained.

Table 8 lists and **Figure 14** displays the soil series, or groups, mapped within the project Study Area based on information provided by the Natural Resources Conservation Service (NRCS).

Table 8. Soils within the Study Area

Soils	Symbol	Type	Hydric Soils
Acadia silt loam, 1 to 3 percent slopes	Ac	silt loam	Yes
Aquents, frequently flooded	AN	clay loam	Deposited dredge spoils within marsh areas
Basile and Guyton silt loams, frequently flooded	BB	silty clay loam	Yes
Crowley-Vidrine silt loams	Cr	acid silt loam	Crowley component
Mowate-Vidrine silt loams	Mt	acid silt loam	No
Udifluvents, 1 to 20 percent slopes	UA	sandy clay	Yes
Urban Land	Up	--	No

Source: USDA, NRCS WebSoil Survey (2012).

Farmland Protection Policy Act

The U. S. Department of Agriculture (USDA), through the NRCS, administers the Farmland Protection Policy Act (FPPA 1983). The purpose of the FFPA is "to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses." The NRCS defines prime farmland as soils that have the best combination of physical and chemical characteristics to economically produce high yields of agricultural crops when treated and managed according to acceptable farming practices.

To ensure compliance with the FFPA, agency coordination with the NRCS, Alexandria, Louisiana, was initiated August 22, 2012 (**Appendix A**). The NRCS has determined that the **Selected Alternative** will not impact soils that are classified as prime, unique, or of statewide or local importance. In a letter dated September 13, 2012, the NRCS stated that the proposed project is exempt from FPPA rules and regulations due to its location within an urban area. This correspondence also stated that no identified cultural resources would be impacted.

The **Selected Alternative** would result in minimal disturbance to soils and geologic resources and is primarily located within existing roadway ROW. As such, these areas have been previously disturbed and no impacts are anticipated.

The **No Build Alternative** will have no impacts to the geology, soils, or farmlands.

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UA

AN

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Ac

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BB

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Mt

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B BB

Legend

Study Area

Soil ID	Description
Ac	Acadia silt loam
AN	Aquents
BB	Basile and Guyton silt loams
Cr	Crowley-Vidrine silt loams
Mt	Malbis fine sandy loam
UA	Udifluvents
Up	Urban land
W	Water

FHWA

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CALCASIEU PARISH, LOUISIANA

USDA NRCS SOILS, CALCASIEU PARISH, LA
Data Range 2004-2012

FIGURE
14

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3.2.3 Water Resources and Wetlands

Surface Waters

Surface water resources within the Study Area include Prien Lake and Indian Bay to the west, Cline Canal to the north of I-210, and an unnamed tributary to Cline Canal between Cove Lane and Nelson Road as identified on the U.S. Geological Survey National Hydrography Dataset (Oct 2012) (**Figure 15**). The **Selected Alternative** proposes a bridge crossing of Cline Canal for the Cove Lane interchange improvements included in Phase I of construction. The **Selected Alternative** would result in minimal disturbance to surface waters due to the proposed timber pile construction method, which allows for a reduced footprint and therefore minimizes impacts.

Natural and Scenic Rivers

The Louisiana Department of Wildlife and Fisheries (LDWF) is responsible for managing Louisiana's natural resources including the Louisiana Natural and Scenic River System. There are no national Wild and Scenic Rivers crossed by the **Selected Alternative**.

Neither the **Selected Alternative** nor the **No Build Alternative** would impact natural and scenic rivers.

Floodplains

A floodplain evaluation was conducted in accordance with Executive Order 11988, *Floodplain Management (1977)*, 23 Code of Federal Regulations (CFR) 650, Subpart A "Location and Hydraulic Design of Encroachments on Floodplains" and U.S. Department of Transportation (DOT) 5650.2 "Floodplain Management and Protection". The location of the 100-year floodplain for the project Study Area was identified from Federal Emergency Management Agency (FEMA) Digital Flood Insurance Rate Maps and are shown on **Figure 15**. Special Flood Hazard Area designations are indicated as Zone AE, which has a base flood elevation determined for those areas subject to inundation by the 100-year flood recurrence interval (1 percent chance flood) and areas designated as the 500-year flood recurrence interval (2 percent chance flood) (**Figure 15**).

The **Selected Alternative** passes through floodplain areas associated with Prien Lake, Indian Bay, and Cline Canal as mapped by FEMA and impacts approximately 3 acres of floodplain area (**Table 9**). There is no practicable alternative to the proposed location of the **Selected Alternative** that does not cross floodplains and includes all practicable measures to minimize floodplain impacts.

Table 9. 100-Year Floodplain Impacts by Alternative

Alternative	Floodplain Acres
Alternative 2	2
Alternative 4	1
Alternative 7	4

Alternative	Floodplain Acres
Alternative 7a	4
Alternative 16a	3
Alternative 21b	3

Source: FEMA Map 22019C0459F (2012).

Detailed hydraulic studies will be completed during final design to determine any changes to flood elevation as a result of construction of the **Selected Alternative**. These studies will be reviewed by LADOTD and FHWA to confirm that measures have been taken to ensure that floodplain encroachment does not increase flooding to adjacent properties.

The **No Build Alternative** would have no impact on floodplains within the project Study Area.

Groundwater Resources

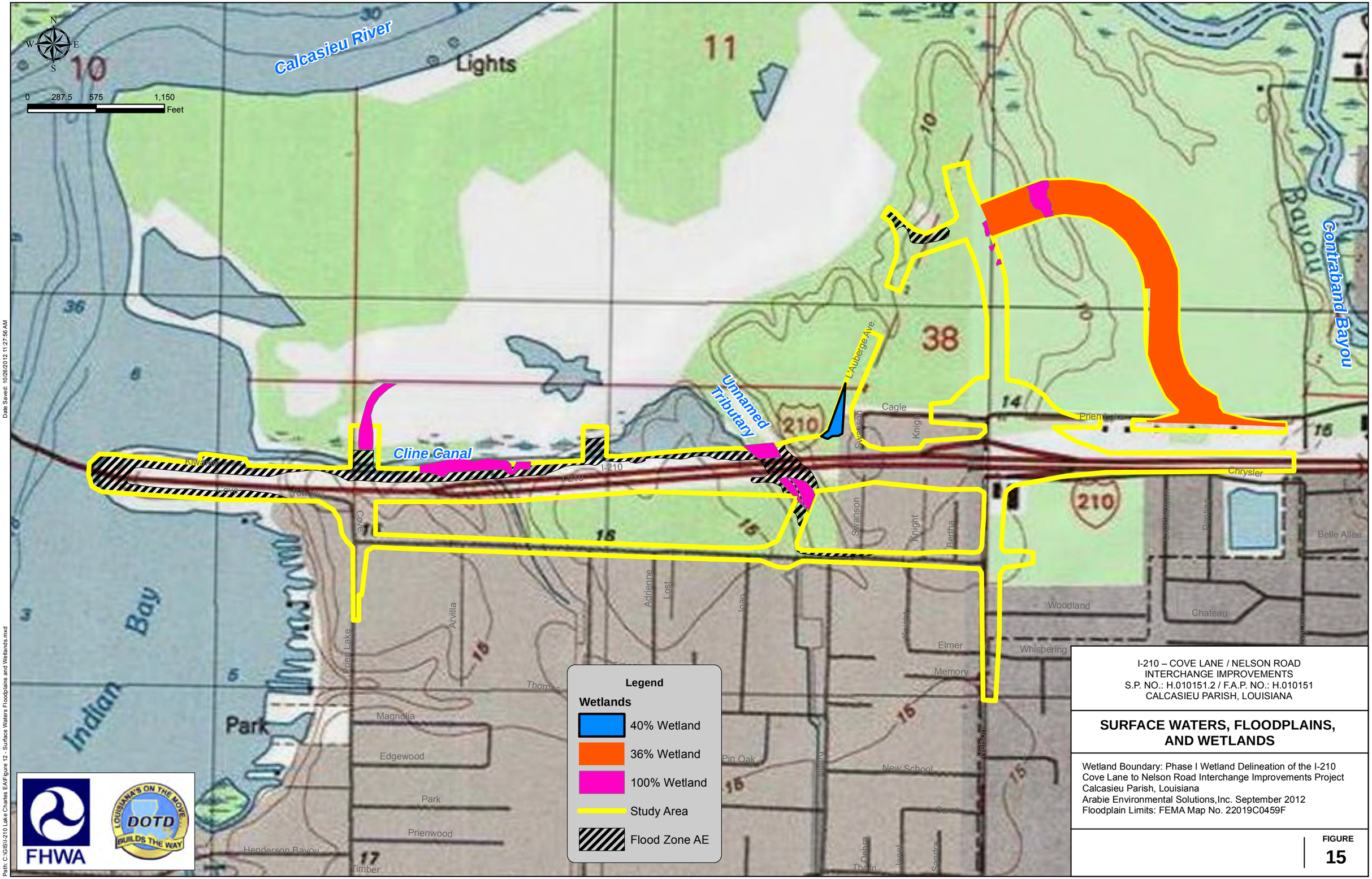
Calcasieu Parish is located on the westward side of the Gulfward-plunging Mississippi River basin (Howe et al. 1935). The **Selected Alternative** is located on the Chicot Aquifer System, which is the primary source of groundwater in Calcasieu Parish and has been designated a Sole Source Aquifer by the U.S. Environmental Protection Agency (USEPA). The top of the Chicot aquifer is encountered at a depth of approximately 50 feet below land surface and greater in areas with the overlying sediments consisting of unconsolidated clay to silty clay sediments and local sand lenses. The general groundwater flow direction is southerly with various cones of depression centered on major pumping centers.

Agency coordination with the USEPA, Region 6, was initiated August 22, 2012 (**Appendix A**). The USEPA has determined that the **Selected Alternative**, as located on the Chicot aquifer, should not have an adverse effect on the quality of groundwater underlying the **Selected Alternative**.

Water Quality

The Louisiana Department of Environmental Quality (LDEQ) is responsible for monitoring, protecting, and enhancing the water quality of Louisiana's surface waters. Results from Louisiana's monitoring and sampling is compiled in the *2010 Louisiana Water Quality Inventory Integrated Report* (Integrated Report). This report is prepared, in part, to meet the requirements of the federal Clean Water Act, Sections 303(d) and 305(b). Section 303(d) requires the state to list impaired water bodies and develop total maximum daily loads for those water bodies.

Results from LDEQ's 303(d) list were used to identify the water quality of surface waters within the Study Area. The Upper Calcasieu Estuary is broadly connected with Prien Lake in the south. Prien Lake, subsegment 030303, is classified as primary contact recreation, secondary contact recreation, and fish and wildlife propagation in Appendix A of Louisiana's 2010 Integrated Report. Louisiana's 2010 303(d) list indicates that the designated uses are fully supported and no sources of impairment were listed.



I-210 – COVE LANE / NELSON ROAD
INTERCHANGE IMPROVEMENTS
S.P. NO.: H.010151.2 / F.A.P. NO.: H.010151
CALCASIEU PARISH, LOUISIANA

SURFACE WATERS, FLOODPLAINS, AND WETLANDS

Wetland Boundary: Phase I Wetland Delineation of the I-210 Cove Lane to Nelson Road Interchange Improvements Project
Calcasieu Parish, Louisiana
Arabie Environmental Solutions,Inc. September 2012
Floodplain Limits: FEMA Map No. 22019C0459F

FIGURE
15

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Path: C:\GIS\I-210 Lake Charles EA\Figure 12 - Surface Waters Floodplains and Wetlands.mxd

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LDEQ regulates nonpoint source pollution from construction activities through the Louisiana Pollutant Discharge Elimination System (LPDES), Title 33:IX Subpart 2. Measures to reduce sediment transport, properly store materials and equipment, properly store and dispose of waste materials, maintain equipment, and avoid accidental discharges of fuels or other chemicals will be outlined in a project-specific Storm Water Pollution Prevention Plan and Erosion and Sedimentation Control Plan.

Adverse impacts to water quality will be reduced by the implementation of Best Management Practices (BMPs). Temporary erosion and sediment control elements shall be placed to prevent potential degradation of the downstream resources with additional control devices implemented to intercept flows and eliminate the introduction of silt-laden runoff from entering the rivers, creeks, wetlands, and tributaries. Erosion and sediment problems are not likely due to the small area of ground disturbance caused by the project. However, essential components of the erosion and sediment control system must be fully operational before beginning a construction phase.

All measures designed for the project will be completed in accordance with Louisiana Administrative Code 33:IX, Subpart 2, LPDES (February 2011), and LADOTD guidelines outlined in Louisiana Standard Specifications for Roads and Bridges Sections 717 and 720.

Any water quality degradation that may occur during construction activities would be localized and temporary for the **Selected Alternative** or other build alternatives.

It is anticipated that the **No Build Alternative** would have no impact on water quality within the project Study Area.

Wetlands

All wetlands identified within the Study Area were evaluated in accordance with Executive Order 11990, *Protection of Wetlands* (1977), and the technical guidelines and methods for wetland delineations as set forth in the U.S. Army Corps of Engineers (USACE) *Wetland Delineation Manual* (1987). Wetlands are defined by the USEPA and USACE as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (40 CFR Subpart 230.3 and 33 CFR Subpart 328.3). Any action that proposes to place fill materials into wetlands and other waters of the U.S. requires a jurisdictional determination from the USACE.

Current federal authority for activities impacting wetlands and navigable waters is with the USACE through Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. The USACE is responsible for enforcement, implementation, and permitting of the CWA provisions.

Agency coordination with the Louisiana Department of Natural Resources (LDNR), Office of Coastal Management (OCM), was initiated August 22, 2012 (**Appendix A**). The OCM has determined that the proposed project, including the **Selected Alternative**, is outside the Louisiana Coastal Zone and a Coastal Use Permit is not required.

Waters of the U.S. Including Wetlands

Potential wetland areas within the Study Area and along all alternatives were initially identified using USGS topographic maps, National Wetland Information maps, and parish soil survey maps. Utilizing this information, wetlands within the Study Area were field verified by Arabie Environmental Solutions, Inc., on August 21, 22, and 27, 2012.

Table 10 lists the amount of wetland area that would be impacted by each Alternative. **Figure 15** illustrates the extent of wetlands delineated within the project Study Area. Each wetland area identified on **Figure 15** is detailed in the technical report provided in **Appendix C**.

Most alternatives would impact similar wetland resources including palustrine forested wetlands (PFO), palustrine scrub-shrub (PSS), and estuarine intertidal (EIUB). Construction activities associated with each alternative would impact wetlands to varying degrees. The wetland areas shown in **Table 10** reflect the wetland area impacted based on the typical LADOTD Section for a two-lane roadway with median and are less than the wetland areas evaluated and identified in the Wetland Report (**Appendix C**).

Alternatives 7 and **7a** would have the greatest impact to wetland resources while **Alternative 4** would have the least impact. **Alternative 21b** has 1.5 acres of impact to wetland resources for implementation of Phase I construction with an additional 4 acres of impact to wetlands with implementation of Phase II. Although the **Selected Alternative** does not have the least wetland impact, the overall least human and environmental impacts occur with implementation of the **Selected Alternative**. It is determined that there is no practicable alternative to the proposed construction in wetlands and the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.

Table 10. Wetland Impacts by Alternative

Natural Resource (acres)	Alternative 2	Alternative 4	Alternative 7	Alternative 7a	Alternative 16a	Alternative 21b
Wetlands and Waters	4	0	5	5	3 [1]	1.5 – 5.5[2]

1. Includes 1.2 acres of fill in open waters.
2. Wetland impact and dependent upon implementation of Phase I and Phase II of Selected Alternative. Wetland Impact: Phase I: 1.5 acres; Phase II: 5.5 acres.

Wetland Mitigation

Wetland mitigation includes measures which avoid, minimize, and/or compensate for unavoidable losses to resources that cannot be further minimized. In order to comply with the federal policy of ensuring that there is no net loss of wetlands acres, unavoidable wetlands impacts for the **Selected Alternative** would be compensated according to an approved mitigation plan.

Wetland areas impacted would be replaced at a compensatory mitigation ratio and requirements determined during evaluation of the project pursuant to the Section 404 permitting process.

To mitigate impacts from erosion and nonpoint source pollution from runoff into surface waters from the construction activities for the proposed project, it would be required that BMPs be implemented. LDEQ monitors these practices through its Water Quality Certification program, which is integrated into the Section 404 wetlands permit.

The **No Build Alternative** would have no impact on wetlands or waters of the United States.

3.3 Biological Resources

Section 7 of the Endangered Species Act of 1973 (amended) requires that federal agencies ensure any action authorized, funded, or carried out by that agency is not likely to adversely impact threatened or endangered species or result in destruction of critical habitat.

The U.S. Fish and Wildlife Service (USFWS) and the LDWF Natural Heritage Program (LNHP) were contacted to determine the potential presence of threatened or endangered species or critical habitat that may exist within the Study Area. In a September 2012 response to a request for federal trust resources review for the proposed project (**Appendix A**), the USFWS stated that the project, as proposed, "is not likely to adversely affect those resources. This finding fulfills the requirements under Section 7(a)(2) of the Act".

The LNHP maintains a database with known locations of federally listed threatened and endangered species as well as state species of special concern. In a September 25, 2012, response to a request for review of the LNHP database, the LNHP stated that *no impacts to rare, threatened, or endangered species or critical habitats are anticipated for the proposed project* (**Appendix A**).

The **No Build Alternative** would have no impact to threatened and endangered species or critical habitat.

3.4 Historic and Cultural Resources

Section 106 of the National Historic Preservation Act of 1966 (as amended) (NHPA), protects those properties that are listed in or eligible for listing in the National Register of Historic Places (NRHP). In accordance with the requirements of Section 106 and NEPA, an assessment was made of the cultural resources within the Study Area.

Methods used in this review and assessment were consistent with the applicable federal and Louisiana guidelines for conducting this type of study. Project-specific cultural resources data, as well as recorded archaeological sites and historic standing structures, were obtained from a review of archaeological site forms and reports on previous cultural resources surveys on file at the Louisiana Department of Culture, Recreation & Tourism (LDCRT), the State Historic Preservation Office (SHPO).

In August 2012, Coastal Environments, Inc. (CEI) conducted a Phase I cultural resources survey of the proposed project area. The archaeological survey examined the direct Area of Potential Effects (APE), which included the existing and required ROW for all of the alternatives and comprised approximately 25 acres (**Figure 16**). The standing structure survey examined the indirect APE, which included the

existing and required ROW and any structures visible from it. This area comprised of approximately 425 acres.

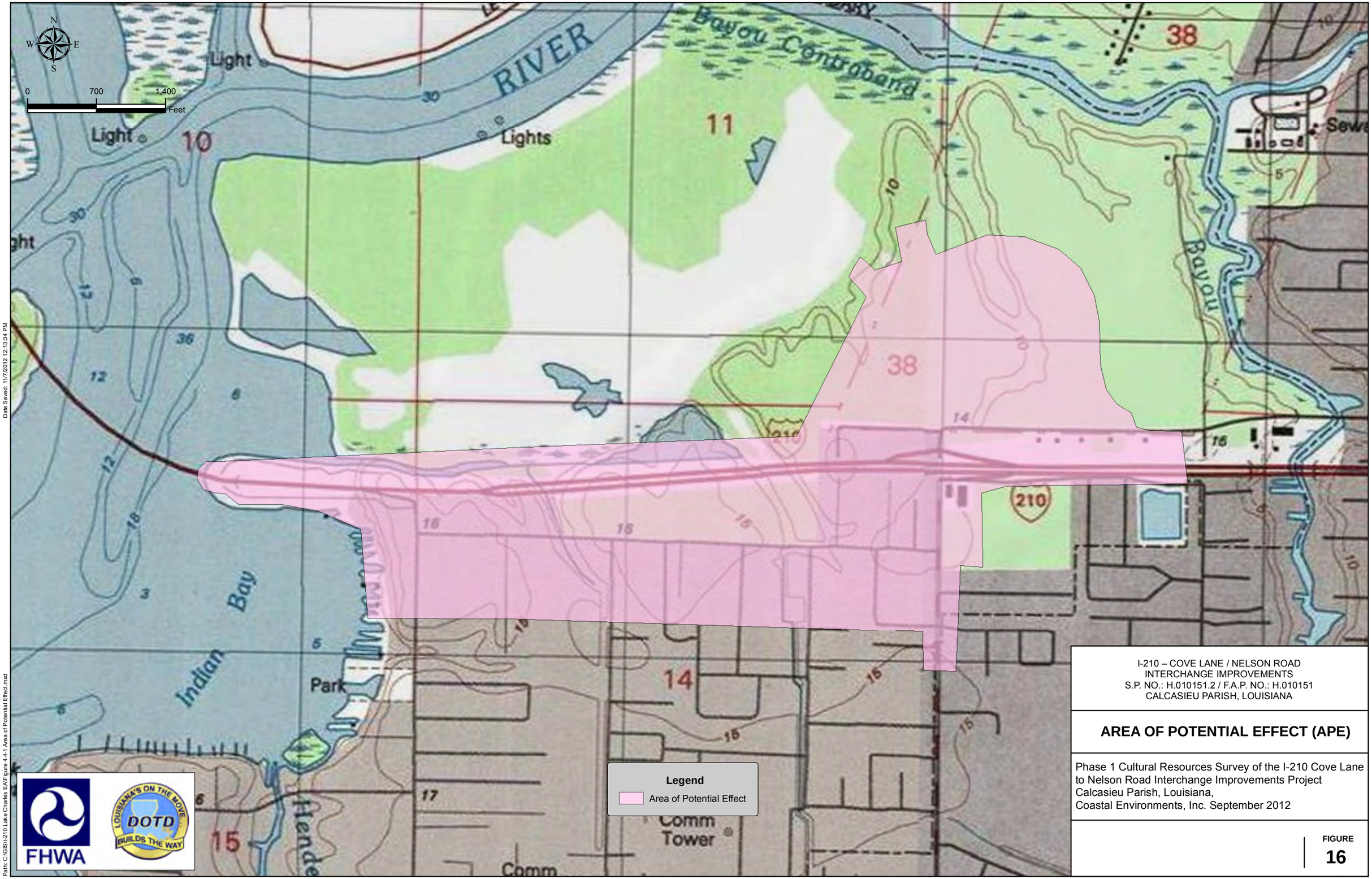
3.4.1 Archaeological Resources

Identification and assessment of potential cultural resources was conducted for the APE and included all areas that could include cultural resources and be directly or indirectly impacted by the proposed project. A geomorphological assessment of the APE was completed in order to determine the potential for the area to have fostered human development or to have been preserved. An overview of the region's prehistory is provided in the *Phase I Cultural Resources Survey of the I-210 Cove Lane to Nelson Road Interchange Improvements Project, Calcasieu Parish, Louisian*a (CEI 2012) which has been submitted to the LDCRT as required under Section 106 of the NHPA.

A cultural resource investigation was completed in order to locate all archaeological remains within the APE and to assess their significance. A records search was conducted at the Division of Archaeology (DOA), LDCRT. The DOA maintains archaeological site information for the State of Louisiana. The DOA also maintains USGS 7.5-minute quadrangle maps depicting the locations of all recorded archaeological sites, site forms, and corresponding reports. Examination of these records indicates that there are no previously recorded archaeological sites within the proposed project area.

A field survey of the **Selected Alternative** and project Study Area was conducted after associated background archival data were collected. Research on landforms and settlement patterns of the project Study Area indicate that only two portions would be considered to have high archaeological potential. One of these areas is located in the northeastern portion of the project Study Area at the proposed location for the relocation of West Prien Lake Road. The other lies south of I-210 where the relocated L'Auberge Avenue extends south of I-210 intersecting with West Prien Lake Road. An unnamed tributary to Cline Canal would be crossed at this location. The remainder of the project area is considered to have a low archaeological potential.

The archaeological survey of the I-210 Cove Lane to Nelson Road project area failed to locate archaeological remains within the direct APE. Much of the project area consists of poorly drained Pleistocene terrace that are not close to a year-round water source. These areas would not have been the preferred location for Native American settlement, nor would they have been attractive to early Euro-American settlers. The pimple mounds located in the proposed ROW of relocated West Prien Lake Road were all examined with shovel tests, but none of them yielded artifacts or other evidence of occupation (CEI 2012) (**Figure 17**).



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Path: C:\GIS\I-210 Lake Charles EA\Figure 4.4-1 Area of Potential Effect.mxd

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AREA OF POTENTIAL EFFECT (APE)

Phase 1 Cultural Resources Survey of the I-210 Cove Lane to Nelson Road Interchange Improvements Project
Calcasieu Parish, Louisiana,
Coastal Environments, Inc. September 2012

FIGURE
16

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Feet

Legend
Study Area
Shovel Test Location
High Probability Area

FHWA

LOUISIANA'S ON THE MOVE
DOTD
BUILDS THE WAY

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HIGH PROBABILITY AREAS AND SHOVEL TEST LOCATIONS

Phase 1 Cultural Resources Survey of the I-210 Cove Lane to Nelson Road Interchange Improvements Project
Calcasieu Parish, Louisiana,
Coastal Environments, Inc. September 2012

FIGURE
17

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Path: C:\GIS\I-210 Lake Charles EA\Figure 4.4-2 High Probability Areas and Shovel Test Locations.mxd

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No previously recorded archaeological sites were identified within the project APE and the archaeological survey did not locate any new site; therefore, the **Selected Alternative** and **No Build Alternative** would have no effect on cultural resources.

3.4.2 Architectural Resources

The identification and assessment of potential historic resources were conducted for the APE and included all areas that could include historic resources and be directly or indirectly impacted by the proposed project.

Prior to the field survey, CEI conducted a records search at the Division of Historic Preservation (DHP), LDCRT. The DHP maintains Louisiana Historic Resource Inventory (LHRI) and NRHP files for the State of Louisiana. Review of the NRHP files indicated that there are no NRHP properties within the vicinity of the project APE. Previous surveys within Calcasieu Parish have been limited to the city of Lake Charles. None of the previously recorded standing structures are located within the APE for the project Study Area.

A field survey was conducted and all properties 50 years of age or older within the APE were identified. A 5-year buffer was added to the 50-year cutoff date of 1962 to account for the time between survey and construction. All structures that predate 1967 were recorded on LHRI forms and photo documented. The field reconnaissance identified 44 previously unrecorded structures located on 41 properties within the APE.

Most of the structures recorded consist of ranch houses built in the late 1950s and early 1960s. Several bungalows and minimal traditional cottages built during the first half of the twentieth century, as well as one garage apartment, were also recorded. Although most (34) of the structures retain their integrity, they are not considered distinctive enough to be eligible for listing on the NRHP (CEI 2012).

The methodology and results of the standing structures survey is provided in the *Phase I Cultural Resources Survey of the I-210 Cove Lane to Nelson Road Interchange Improvements Project, Calcasieu Parish, Louisian*a (CEI 2012). This survey has been submitted to the LDCRT as required under Section 106 of the NHPA.

No previously recorded standing structures or NRHP properties were located within the project APE. The standing structure survey recorded a total of 44 structures within the APE, none of which are considered eligible for listing on the NRHP (**Figure 18**). Therefore, the **Selected Alternative** and **No Build Alternative** would have no effect on historic resources.

To ensure compliance with Section 106 of the NHPA, agency consultation with the LLDCRT SHPO was initiated. On September 19, 2012, submission of the *Phase I Cultural Resources Survey of the I-210 Cove Lane to Nelson Road Interchange* Improvements *Project* (CEI 2012) was completed. In correspondence dated September 26, 2012, the SHPO states, “Our office concurs that no historic properties will be impacted by this project, and our office would have no further concerns for this project” (**Appendix A**). This concludes the Section 106 consultation process.

The **Selected Alternative** and **No Build Alternative** would have no impact on cultural and historic resources.

3.5 Aesthetic and Visual Resources

Louisiana's aesthetic and visual resources are an important component of the state's tourism industry and contribute significantly to the quality of life in Louisiana. These resources include a broad range of natural and developed areas from the coastal marshlands and swamps along the Gulf Coast to the rich cotton fields of North Louisiana, from its historic cities and towns to its forestlands and wildlife.

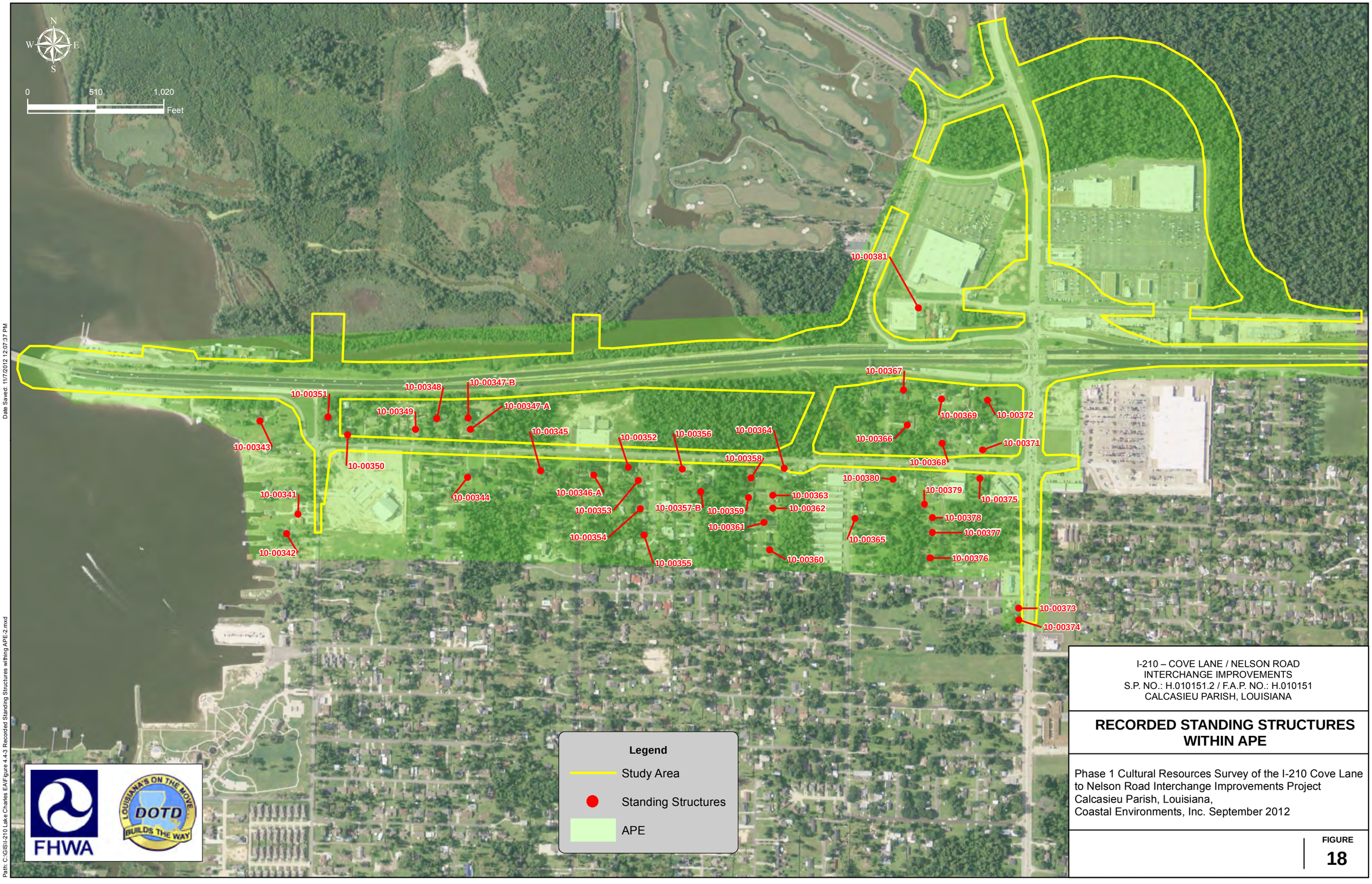
The visual experience and aesthetic quality of an area depends upon the pattern of land or topography, the pattern of waterbodies, vegetation, and human development (FHWA 1990). More specifically, factors used to assess a person's visual experience and the aesthetic quality of an area may include:

- Uniqueness of the landscape in relation to the region as a whole;
- Whether the scenic area is a foreground, middle ground, or background view;
- Focus of the view;
- Scale of the elements in the scene;
- Number of potential viewers;
- Duration of the view; and
- Amount of disturbance to the landscape.

The project Study Area includes part of an interstate system adjacent to an area that is suburban residential and commercial in character. Human development is visually prominent along the I-210 corridor, where the architecture is typical late 20th century shopping center, hotel and restaurant chains, big-box retail, interchange design, and 1950s and early 1960s style ranch houses.

The viewshed also includes a bridge, pylon signs, utility poles, concrete driveways, and parking lots. The interstate plays a prominent role in the visual character of the Study Area as the main vantage point for most viewers. The interstate overpass and Nelson Road interchange ramps are central features of the viewshed from the ground.

There would be no change to the nightscape, which is currently filled with artificial light from the shopping centers, hotels/restaurants, entertainment facilities, and interstate operations.



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Path: C:\GIS\I-210 Lake Charles EA\Figure 4-4-3 Recorded Standing Structures wIthing APE-2.mxd

I-210 – COVE LANE / NELSON ROAD
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RECORDED STANDING STRUCTURES WITHIN APE

Phase 1 Cultural Resources Survey of the I-210 Cove Lane to Nelson Road Interchange Improvements Project
Calcasieu Parish, Louisiana,
Coastal Environments, Inc. September 2012

FIGURE
18

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The **Selected Alternative** would not significantly add to the obscured view of the landscape from ground level. Currently, a concrete retaining wall extends from west of Cove Lane near the Prien Lake bridge east passed Cove Lane and is visible from ground level. Proposed Cove Lane improvements will be at-grade south of I-210. The I-210 overpass will utilize mechanically stabilized earth (MSE) retaining walls providing a clear opening under the interstate. An approximate 60-foot length of MSE wall will be utilized at the eastbound ramp terminal to accommodate the grade change as Cove Lane crosses Cline Canal. Proposed improvements at Nelson Road are incorporated into the existing interchange and the relocation of West Prien Lake Road will be integrated into the existing commercial retail area. The Nelson Road and West Prien Lake improvements are part of Phase II construction for the **Selected Alternative**. The **Selected Alternative** is anticipated to have minimal adverse impacts to the aesthetic and visual resources in the project Study Area.

The **No Build Alternative** would have no impact to aesthetic and visual resources.

3.6 Parks and Public Lands

Section 4(f) of the DOT Act of 1966 stipulates that FHWA cannot approve the use of land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites, unless there is no feasible and prudent avoidance alternative following all possible planning to minimize harm to the property; or if the use of the land would have only a *de minimis* impact, or no adverse effect, to key features of the property. No Section 4(f) lands would be impacted by the proposed project.

Section 6(f) of the Land and Water Conservation Act requires that unavoidable conversion of lands or facilities acquired or developed with Land and Water Conservation Act funds be replaced in kind or coordinated with the Department of Interior. No Section 6(f) lands would be impacted by the proposed project.

LaFleur Park (Park) is located at the west end of the project Study Area. The Park is bisected by the I-210 bridge approaches which continue over Prien Lake. The Park is located wholly within LADOTD ROW and is maintained by Calcasieu Parish for use by the community as provided for in an agreement between LADOTD and the Calcasieu Parish Police Jury (May 24, 1978). Park amenities include a beach front, pavilion, and picnic tables on the south side of I-210 and a boat launch on the north side of I-210.

Because its location is fully within existing LADOTD ROW, whose primary use is for transportation, this park is not an applicable resource protected by Section 4(f) of the DOT Act of 1966. While **Alternative 16a** would require use of some of this ROW, the facility would not be closed. None of the other build alternatives nor the **No Build Alternative** would affect this Park.

3.7 Noise

Noise, by definition, is unwanted sound that interferes with normal activities and would not be considered a resource, but rather a condition that potentially affects both the human and natural environment. Noise is described in terms of loudness, frequency, and duration and is emitted from many sources, including

airplanes, factories, railroads, power generating plants, and highway vehicles. Highway noise, or traffic noise, is usually a composite of noises from engine exhausts, drive trains, and tire-roadway interaction.

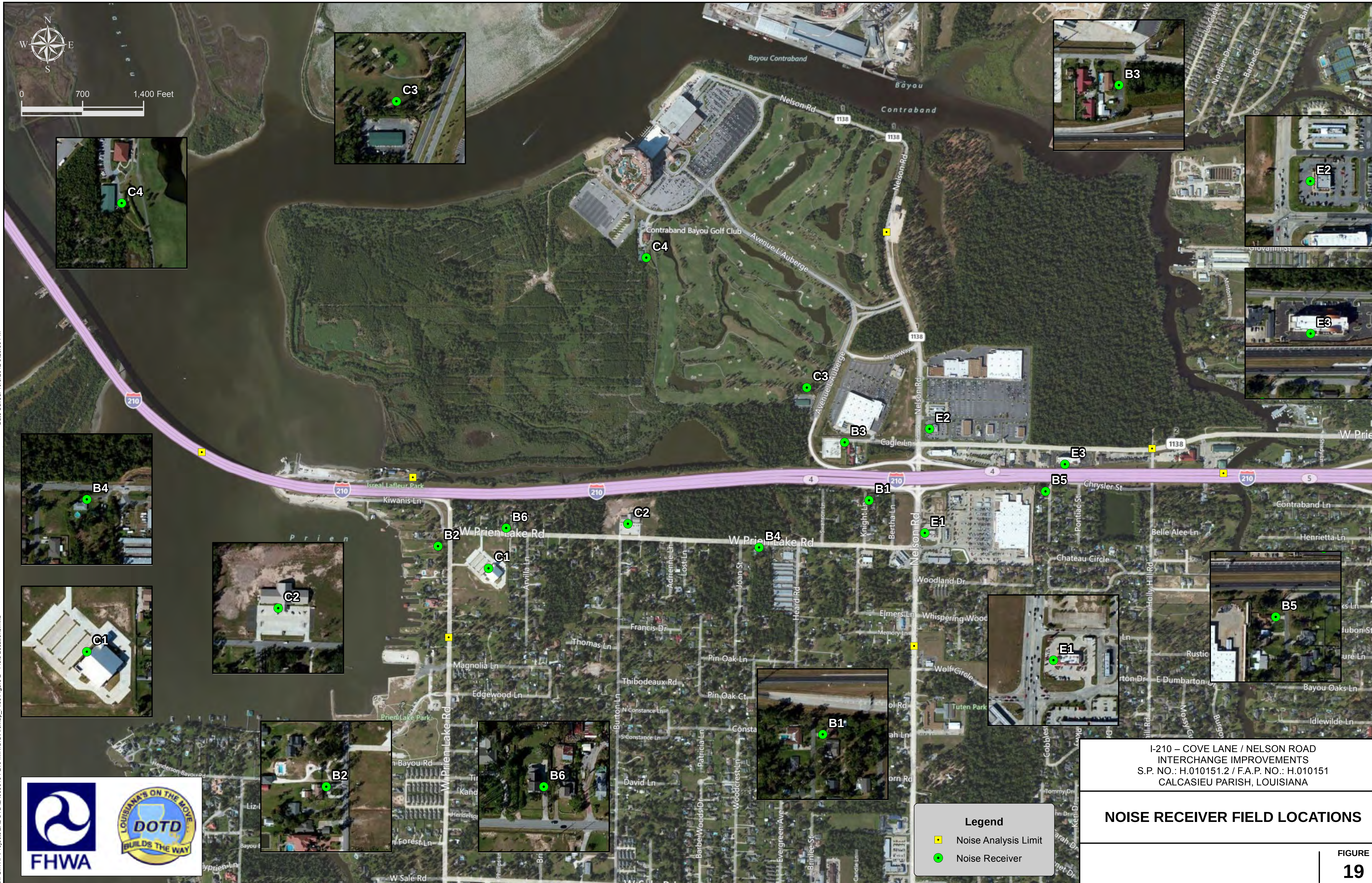
The magnitude of noise is usually described by its sound pressure. Because the range of sound pressure varies greatly, a logarithmic scale is used to relate sound pressures to some common reference level, particularly the decibel. Sound pressures described in decibels are called sound pressure levels and are often defined in terms of frequency-weighted scales (A, B, C, or D).

For community noise impact assessment, the A-weighted scale is used almost exclusively in vehicle noise measurements because it places most emphasis on the frequency characteristics that correspond to a human's subjective response to noise (1,000 to 6,000 Hertz). Sound levels measured using A-weighting are often expressed as A-weighted decibels (dBA).

A noise monitoring program was conducted within the Study Area **(Appendix D**) to establish existing sound levels in accordance with the LADOTD Highway Traffic Noise Policy (2011). Sixteen field-measured noise location were identified for the collection of existing sound levels along roadways within the project Study Area. These noise measurement locations are shown on **Figure 19** and described in **Table 11**. Existing noise levels ranged from 52.2 to 67 dBA. Traffic noise Site ID E1 (collected during traffic off-peak) resulted in the highest noise level measured north of the West Prien Lake and Nelson Roads intersection. The lowest noise level measured was at traffic noise Site ID C3 near L'Auberge Avenue and Sam's Way.

The dominant noise source at each receiver site is existing traffic including automobiles, heavy trucks, and medium trucks and is usually a composite of noises from engine exhausts, drive trains, and tire-roadway interaction.

Traffic noise calculations were performed using the FHWA Traffic Noise Model 2.5 (TNM 2.5). As illustrated in **Table 11**, the difference between the field-measured sound levels and TNM-calculated sound levels are within the acceptable range of ±3 dBA (the amount of sound that is barely perceptible by the human ear) at all locations where existing measurements were taken.



I-210 – COVE LANE / NELSON ROAD
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NOISE RECEIVER FIELD LOCATIONS

FIGURE
19

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Table 11. Field-Measured Noise Measurements

Traffic Noise Site ID	Receiver No.	Description of Traffic Noise Site	Activity Category	Field-Measured Sound Level (dBA)	TNM-Calculated Sound Level (dBA)	Calculated Difference
B1	R32	520 Feet North of Intersection of West Prien Lake Road and Knight Lane	B	64.7	62.4	-2.3
B2	R11	500 Feet South of Intersection of West Prien Lake Road and Cove Lane	B	57.0	60.0	+3.0
B3	R136	600 Feet West of Intersection of Nelson Road and Cagle Lane	B	58.0	61.0	+3.0
B4	R80	1,800 Feet West of Intersection of West Prien Lake Road and Nelson Road	B	58.9	60.8	+1.9
B5 Peak	R154	1,200 Feet West of Intersection of Holly Hill Road and Chrysler Street	B	65.6	66.9	+1.3
B5 Off Peak	R154	1,200 Feet West of Intersection of Holly Hill Road and Chrysler Street	B	65.6	66.7	+1.1
B6	R22	600 Feet East of Intersection of West Prien Lake Road and Cove Lane	B	61.2	63.5	+2.2
C1	R18	450 Feet East of Intersection of West Prien Lake Road and Cove Lane	C	54.4	53.1	-1.3
C2 Peak	R26	2,000 Feet East of Intersection of West Prien Lake Road and Cove Lane	C	58.4	60.2	+1.8
C2 Off Peak	R26	2,000 Feet East of Intersection of West Prien Lake Road and Cove Lane	C	58.7	59.5	+0.8
C3	R132	700 Feet South of Intersection of L'Auberge Avenue and Sam's Way (On Golf Course)	C	52.2	For Background Noise Level	For Background Noise Level
C4	--	1,200 Feet West of Intersection of L'Auberge Avenue and Frontage Road for Recreation Resort	C	53.2	For Background Noise Level	For Background Noise Level
E1 Peak	R131	150 Feet North of Intersection of West Prien Lake Road and Nelson Road	E	65.9	68.7	+2.8
E1 Off Peak	R131	150 Feet North of Intersection of West Prien Lake Road and Nelson Road	E	67.0	67.9	+0.9
E2	R142	150 Feet North of Intersection of Nelson Road and Cagle Lane	E	60.7	63.6	+2.9
E3	R150	1,700 Feet East of Intersection of Nelson Road and Cagle Lane	E	64.8	67.8	+3.0

dBA A-weighted decibels.
Source: ARCADIS U.S., Inc., Noise Analysis Technical Report (October 2012).

A total of 170 noise receivers (representing a total of 182 dwelling units) were modeled within the project Study Area, of which 126 receivers (representing 129 dwelling units) are classified as Activity Category B, 10 receivers (representing 10 dwelling unit) are classified as Activity Category C, 15 receivers (representing 19 dwelling unit) are classified as Activity Category E, and 19 receivers (representing 24 dwelling units) are classified as Activity Category F. The receiver locations were determined after examining the boundaries of the proposed alternatives (**Figure 20**). As shown in **Table 12**, the 2011

existing conditions exterior sound levels at 27 receiver locations (representing 27 dwelling units) approach or exceed the NAC.

Table 12. Traffic Noise Impact Summary by Alternative

		Total Number		Approaching or Exceeding LADOTD NAC		Impacted under Substantial Increase Criteria		Total Impacted	
		Receivers	Dwelling Units	Receivers	Dwelling Units	Receivers	Dwelling Units	Receivers	Dwelling Units
2011 Existing Conditions		170	182	27	27	N/A	N/A	27	27
2041 No Build Conditions		170	182	48	50	0	0	48	50
2041 Build Conditions	**Alt 2**	162	174	41	42	0	0	41	42
	Alt 4	164	176	43	44	0	0	43	44
	Alt 7	163	175	38	39	0	0	38	39
	Alt 7a	163	175	38	39	0	0	38	39
	Alt 16a	166	178	29	30	0	0	29	30
	Alt 21b	166	178	34	35	0	0	34	35

N/A Not applicable for the listed alternative.
Alt Alternative.
NAC Noise Abatement Criteria.
Source: ARCADIS U.S., Inc., Noise Analysis Technical Report (October 2012).

Traffic noise impacts occur when the predicted traffic sound levels equal or exceed the Noise Abatement Criteria (NAC), or when the predicted traffic sound levels exceed existing levels by 10 dBA. Where traffic noise impacts are predicted, the traffic noise analysis includes an evaluation of alternate noise abatement measures for reducing or eliminating the noise impacts.

Table 13 describes the LADOTD NAC threshold values. These values are consistent with FHWA requirements for the consideration of traffic noise impacts 1 dBA below the NAC. These values represent the noise level at which abatement measures, like noise walls, must be evaluated.

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R1 R2 R3 R4 R5 R6 R7 R8 R9 R10 R11 R12 R13 R14 R15 R16 R17 R18 R19 R20 R21 R22 R23 R24 R25 R26 R27 R28 R29 R30 R31 R32 R33 R34 R35 R36 R37 R38 R39 R40 R41 R42 R43 R44 R45 R46 R47 R48 R49 R50 R51 R52 R53 R54 R55 R56 R57 R58 R59 R60 R61 R62 R63 R64 R65 R66 R67 R68 R69 R70 R71 R72 R73 R74 R75 R76 R77 R78 R79 R80 R81 R82 R83 R84 R85 R86 R87 R88 R89 R90 R91 R92 R93 R94 R95 R96 R97 R98 R99 R100 R101 R102 R103 R104 R105 R106 R107 R108 R109 R110 R111 R112 R113 R114 R115 R116 R117 R118 R119 R120 R121 R122 R123 R124 R125 R126 R127 R128 R129 R130 R131 R132 R133 R134 R135 R136 R137 R138 R139 R140 R141 R142 R143 R144 R145 R146 R147 R148 R149 R150 R151 R152 R153 R154 R155 R156 R157 R158 R159 R160 R161 R162 R163 R164 R165 R166 R167 R168 R169 R170

Ramp Kiwanis Ln W Prien Lake Rd Adella Ln Francis Dr Thomas Ln Magnolia Ln Edgewood Ln Park Dr Prienwood Dr Henderson Bayou Rd Lock Point Dr. Timber Ln Kandy Ln Henderson Bayou Pl Indian Bay Dr Briarwood Rd Burton Ln Thibodeaux Ln N Constance Ln S Constance Ln Constance Ln David Ln Aryn Ln Pin Oak Ct Joan St Pin Oak Ln Patricia Ln Barbe Woods Dr Woodcrest Ln Evergreen Av Debra Ln Janet Ln Thorn Rd Adrienne Ln Heard Rd Knight Ln Elmers Ln Cagle Ln Ramp Ramp Ramp Ramp 210 210 W Prien Lake Rd New School Rd Chrysler Dr S Chateau Cir N Chateau Cir Belle Allee Ln Covey Ln Covey Ln Rustic Ln W Dumbarton Dr Dumbarton Dr Moss Loop

FHWA

LOUISIANA'S ON THE MOVE DOTD BUILDS THE WAY

Legend

- Noise Analysis Limit

NAC Activity Category

- B
- C
- E
- F

I-210 – COVE LANE / NELSON ROAD
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S.P. NO.: H.010151.2 / F.A.P. NO.: H.010151
CALCASIEU PARISH, LOUISIANA

NOISE RECEIVER LOCATIONS

FIGURE
20

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Table 13. Noise Abatement Criteria

Activity Category	Hourly A-weighted Decibels [1]	Activity Category Description
A	56 (exterior)	Land on which serenity and quiet are of extraordinary significance and serve an important public need, and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	66 (exterior)	Residential.
C	66 (exterior)	Active sports areas, amphitheaters, auditoriums, campgrounds, cemeteries, daycare centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	51 (interior)	Auditoriums, daycare centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	71 (exterior)	Hotels, motels, offices, restaurants/bars, and other developed land, properties or activities not included in A through D or F.
F	–	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	–	Undeveloped land that is not permitted.

[1]Hourly A-weighted equivalent noise level in dBA - L_{eq} (hour).
Source: LADOTD 2011.

Several types of noise reduction measures were considered to mitigate noise impacts including traffic management, alignment alterations, noise insulation of certain structures, and vegetative and structural barriers. **Figure 21** indicates potential barrier locations.

Noise abatement consideration evaluates both feasibility and reasonableness. For feasibility, a 5-dBA reduction in noise is considered to be a benefited receptor and at least one benefited receptor must receive an 8-dBA reduction in noise and the average cost per benefited receptor must not exceed $35,000 to be considered reasonable.

All impacted receivers were reviewed in detail for noise abatement except for two impacted receivers (R37 and R40) that could not be mitigated because they have direct driveway access to West Prien Lake Road. Construction of a barrier along this road would prevent access to the properties that resulted in none of the measures being feasible. Seven potential barriers were designed along I-210 and evaluated as noise abatement strategies for each of the build alternatives; however, none of the seven barriers were found to be reasonable under any build alternative. Results of the noise abatement analyses are included in **Appendix D** (Noise Analysis Technical Report).

3.8 Air Quality

National and state ambient air quality standards, developed for specific (criteria) pollutants to protect public health, safety, and welfare, are established in the Clean Air Act Amendments of 1990 (CAAA). The CAAA requires that a proposed project not cause any new violation of National Ambient Air Quality Standards (NAAQS), or increase the severity of existing violations, or delay attainment of NAAQS. The USEPA and LDEQ are responsible for the protection of air quality within Louisiana. The USEPA established NAAQS for six air pollutants: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), ozone (O_3), and particulate matter of 10 microns or less in size (PM-10 and PM-2.5). Air quality is defined by two standards, primary and secondary. Primary standards refer to air quality levels required to protect public health within an adequate margin of safety. Secondary standards refer to air quality levels required to safeguard visibility, comfort, animals, and property from poor air quality.

Transportation conformity is a process required of MPOs, pursuant to the CAAA, to ensure that federal funding and approval are given to those transportation activities that are consistent with air quality goals. CAAA requires that transportation plans, programs, and projects funded or approved by the FHWA be in conformity with the State Implementation Plan which represents the state's plan to either achieve or maintain the NAAQS for a particular pollutant. The project Study Area is located within the IMCAL planning boundaries and is designated as in attainment with maintenance by the USEPA for all criteria pollutants.

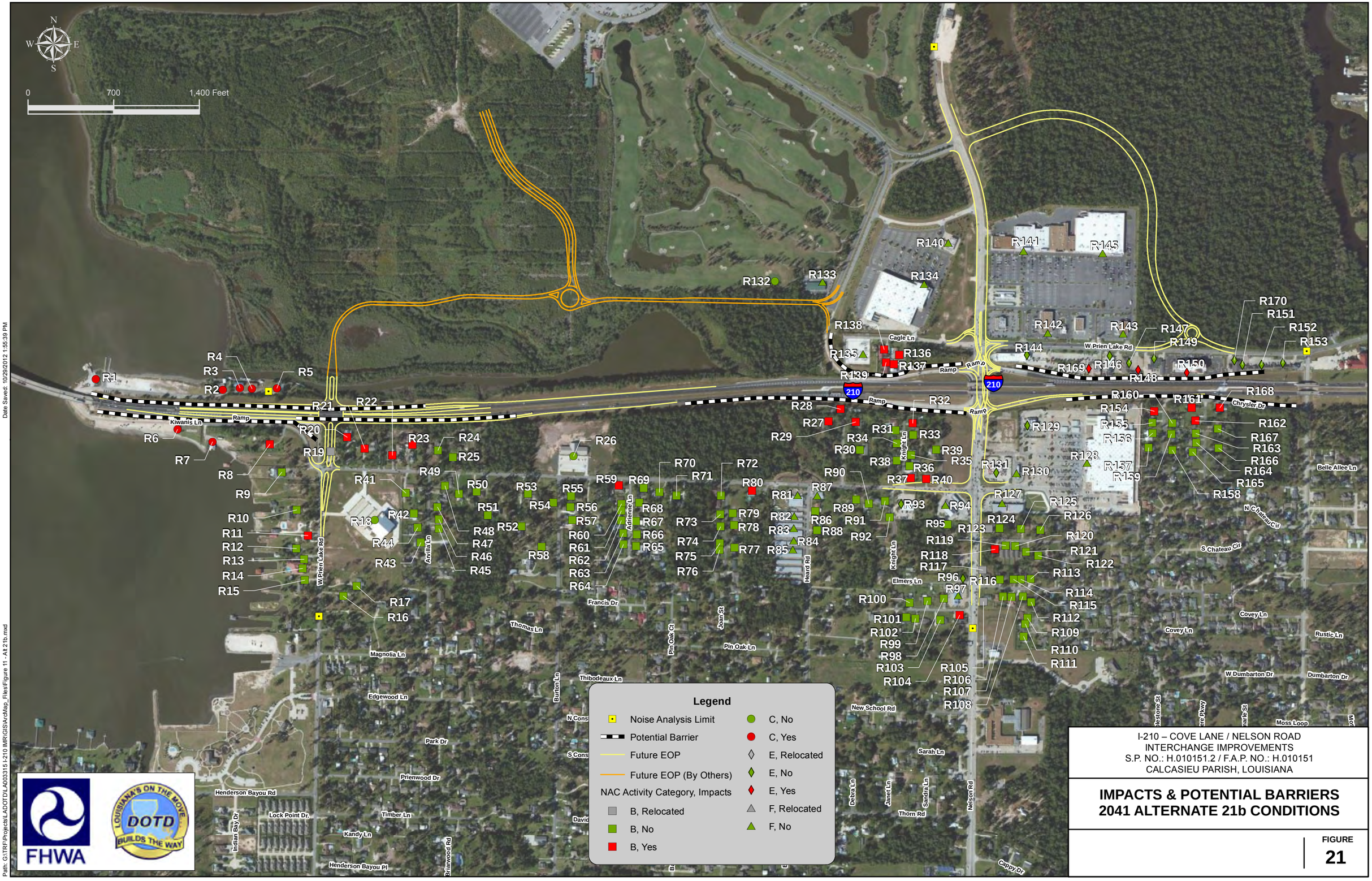
Calcasieu Parish is in attainment for all criteria pollutants. The attainment status indicates the current pollutant levels are below the NAAQS and consequently the conformity requirements do not apply to this project.

There are no air quality impacts for the **Selected Alternative** or **No Build Alternative**.

3.9 Hazardous Materials Sites and Underground Storage Tanks

A standard environmental records review and site reconnaissance was conducted to locate sites of potential concern for hazardous materials or previously identified recognized environmental conditions (RECs) on properties within the project Study Area. This environmental site assessment focused on the locations for **Alternatives 2, 4, 7, 7a, 16a,** and **21b** and was completed utilizing the standard practices outlined in *ASTM E1527-05: Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Processes in conjunction with 40 CFR Part 312.*

Contamination of soils, groundwater, or surface waters can result from former use, storage, or disposal of hazardous materials on subject properties, or from migration of contaminants from adjacent properties. The purpose of conducting an environmental site assessment is to determine a property's potential for containing soil, groundwater, or surface water contamination with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation and Liability Act and petroleum products.



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FHWA

LOUISIANA'S ON THE MOVE DOTD BUILDS THE WAY

I-210 – COVE LANE / NELSON ROAD
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S.P. NO.: H.010151.2 / F.A.P. NO.: H.010151
CALCASIEU PARISH, LOUISIANA

IMPACTS & POTENTIAL BARRIERS 2041 ALTERNATE 21b CONDITIONS

FIGURE
21

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A REC is defined as the presence or likely presence of hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or an observable or obvious threat of a release of hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property, excluding de minimis conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action.

A historical recognized environmental condition (HREC) is defined as an environmental condition that would have been considered a REC in the past, but may or may not be considered a REC currently

A records search was conducted by Environmental Data Resources (EDR), Inc. (**Appendix E**) for the Study Area and immediate surrounding area. In addition, historical aerial photographs and historical topographic maps of the Study Area and adjoining properties were reviewed for evidence of environmental concerns. Photographs range in date from 1952 to 2004 and the historical topographic maps from 1932 to 1966. Sanborn® Map Report coverage was not available for the Study Area.

Results of the EDR search were supplemented with a review of LDEQ Electronic Document Management System (EDMS) records. EDMS is the LDEQ's electronic repository of official records that have been created or received by LDEQ. Accordingly, the locations of some sites were found to differ slightly from their placements on the EDR map.

Database searches were followed by a field reconnaissance of the Study Area. Field reconnaissance also identified sites not documented in the environmental databases. Interviews with individuals knowledgeable about the general Study Area and the identified sites were not conducted due to the extent of the Study Area.

Certain sites listed in the EDR report are considered to represent *de minimis* conditions that generally do not present a material risk of harm to public health or the environment. Eleven sites or properties with known environmental conditions were identified to be present within the boundaries of the Study Area as a result of the EDR records search and three additional sites were identified from the EDMS search and site reconnaissance.

The EDR report provides a list of unmapped sites with inadequate location information. ARCADIS has reviewed the list of unmapped sites to determine if any are near the site. One of the unmapped sites is associated with the Study Area, located adjacent to the Study Area, or within the associated search radii. These conditions are not identified as RECs or HRECs.

Table 14 provides a list of and **Figure 22** shows potential hazardous materials sites identified from the EDR report that are within or near the Study Area or in proximity to the six proposed alternatives.

Table 14. Identified Hazardous Materials Sites & UST Sites

Site Number	Site Name / Address	Site Type / Database
1	Apostolic Temple of the 2711 West Prien Lake Road, Lake Charles, LA	NPDES
2	Pinnacle Entertainment Resort & Casino	FINDS, SPILLS
3	Nelson Road at Cagle Lane Lake Charles, LA	SPILLS
5	Target #1399 1720 West Prien Lake Road, Lake Charles, LA	RCRA-LQG, FINDS
7	1768 West Prien Road, Lake Charles, LA	SPILLS
8	Murphy USA #6689 3441 Nelson Road, Lake Charles, LA	UST, SPILLS
9	Wal-Mart Supercenter 3451 Nelson Road, LA	RCRA-SQG, FINDS, NPDES, SPILLS
11	Lake Area Chiropractic Clinic 3550 Nelson Road, Lake Charles, LA	RCRA-CESQG, FINDS
12	Town & Country Auto Service (now Eubank's Auto) 2017 West Prien Lake Road, Lake Charles, LA	RCRA-NonGen, FINDS (De-listed Dec 1993)
13	2100 West Prien Road, Lake Charles, LA	SPILLS
14	2631 West Prien Lake Road, Lake Charles, LA	SPILLS

LEGEND:

Potentially impacted sites as a result of proposed required right-of-way.

UST Underground Storage Tank.

Source: *EDR DataMap™ Area Study, I-210 Cove Lane/ Nelson, Lake Charles, LA 70605.*

Table 15 provides a list of and **Figure 22** shows potential hazardous materials sites identified from the EDMS review and field reconnaissance that are within or near the Study Area or in proximity to the proposed alternatives.

Table 15. EDMS/Site Reconnaissance Identified Hazardous Materials & UST Sites

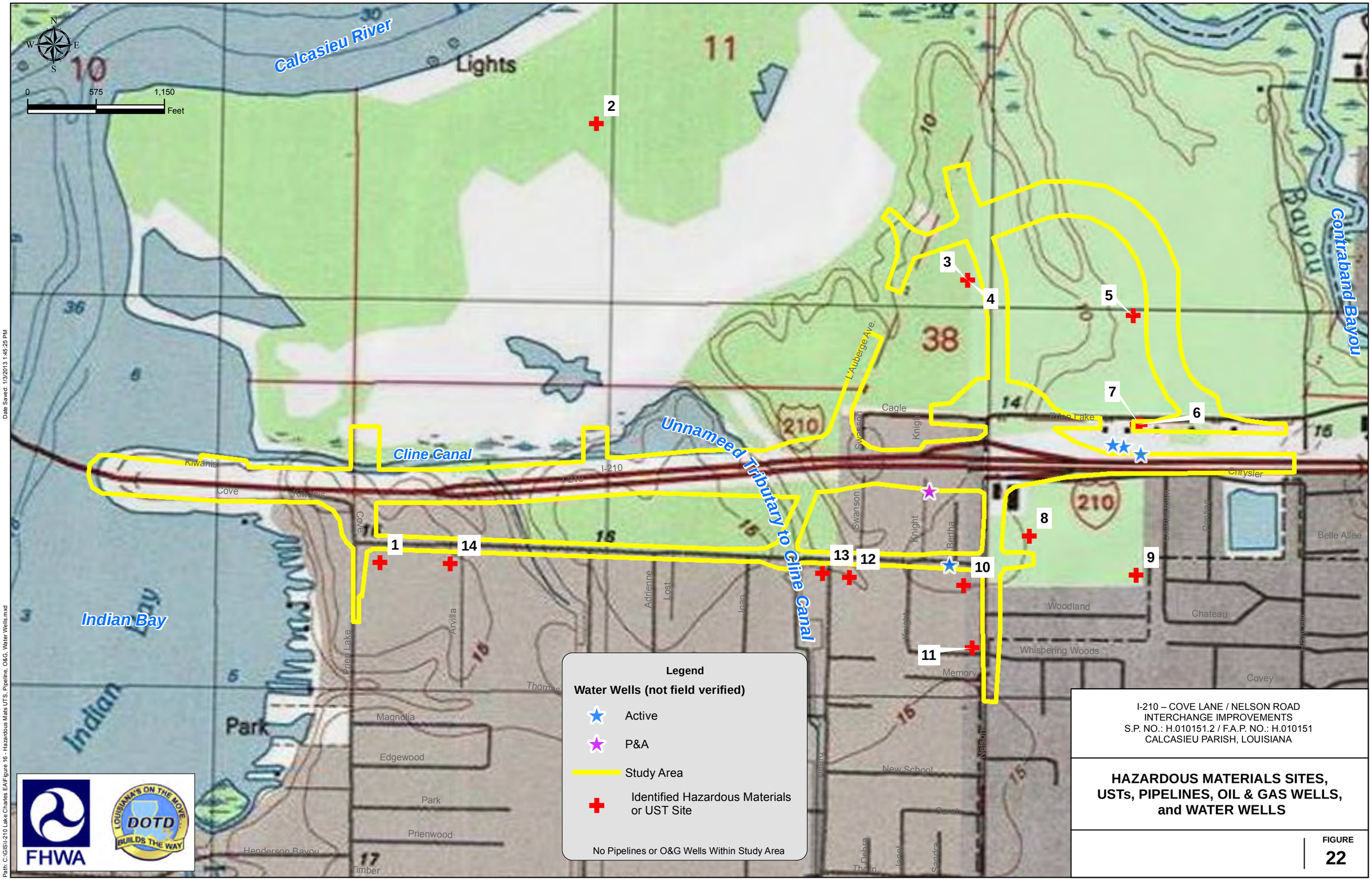
Site Number	Site Name / Address	Site Type / Database
4	Sam's Club Service Station 2025 Sam's Way, Lake Charles, LA	UST
6	Southside Animal Hospital 1701 West Prien Lake Road, Lake Charles, LA	Radiation Source (X-Ray)
10	Tobacco Plus 1801 West Prien Lake Road, Lake Charles, LA	UST

LEGEND:

Potentially impacted sites as a result of proposed required right-of-way.

UST Underground Storage Tank.

Source: *EDMS Review, Field Reconnaissance.*



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HAZARDOUS MATERIALS SITES, USTs, PIPELINES, OIL & GAS WELLS, and WATER WELLS

FIGURE
22

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Based on the results of the environmental records review and site reconnaissance, no evidence of RECs or HRECs have been identified in the Study Area or are within existing project ROW. The identified SPILLS sites were a result of construction activities, vehicle spills, or container storage within or near the Study Area. None of the identified SPILLS sites impact the proposed alternatives.

Observations of adjacent properties identified an Entergy substation located at the west end of Cagle Lane and is not impacted by the proposed alternatives. A temporary construction staging area for the I-210 Bridge Pier Replacement project is located at Kiwanis Lane on the north side of I-210 near the bridge approach. This location is utilized by the contractor conducting pier replacement activities. Several solid waste/recycling dumpsters and an approximate 250-gallon skid-mounted aboveground storage tank used to fuel marine equipment are located within the temporary construction staging area. This site will not impact the proposed alternatives.

Required ROW for lane widening along, and intersection improvements associated with, the **Selected Alternative** at West Prien Lake Road and Nelson Road, south of I-210, may impact Tobacco Plus and Murphy USA for improvements included in Phase II construction activities for the **Selected Alternative.** The UST facilities at both sites will not be impacted by required ROW. No identified sites will be impacted by construction activities associated with Phase I for the **Selected Alternative**.

The **No Build Alternative** would have no impact on sites identified to have known potential environmental conditions that may have the presence or likely presence of hazardous substances or petroleum products or that pose a material threat of release.

A 50-year chain-of-title review for properties within the Study Area was not completed and interviews with individuals knowledgeable about the general Study Area and the identified sites were not conducted. These limiting factors represent data gaps.

3.10 Pipelines; Oil & Gas Wells and Water Wells

Oil and gas and water well information was obtained from the LDNR Strategic Online Natural Resource Information System (SONRIS) database and a response from the LDNR Office of Conservation (**Appendix A**). Information collected indicates five water wells are located within or in proximity to the Study Area (**Table 16; Figure 22**).

Four recorded active water wells and one recorded plugged and abandoned water well were identified within or in proximity to the Study Area. No recorded oil and gas wells are located within the Study Area.

Table 16. Water Wells Located Within the Study Area

Water Well ID	Well Name	Use/Description	Status
019-10712Z	LADOTD	Plugged and Abandoned	Plugged and Abandoned
019-83366Z	Herbert, Sherman	Domestic	Active

Water Well ID	Well Name	Use/Description	Status
019-1351	Clyde-Woodward	Commercial Public Supply	Active
019-1350	J&J Exterminating	Commercial Public Supply	Active
019-564	Carey Baptist Association	Institution Public Supply	Active

Source: LDNR SONRIS database. Accessed September 2012

The **Selected Alternative** and **No Build Alternative** would have no impact on water wells identified within the project Study Area.

3.11 Temporary Construction Impacts

Short-term impacts associated with construction of the **Selected Alternative** are anticipated including erosion of areas cleared for construction, temporary increases in noise levels, and fugitive dust from use of heavy construction equipment.

Temporary impacts to traffic flow and travel patterns are anticipated with construction of the **Selected Alternative** and are expected to be minimal. These impacts and would occur along existing roads and at intersections during construction activities. The **Selected Alternative** would impact traffic flow along I-210, West Prien Lake Road, Cove Lane, and Kiwanis Lane associated with implementation of the Cove Lane interchange construction identified as Phase I of the **Selected Alternative**. Traffic flow along I-210, Nelson Road, and West Prien Lake Road north and south of I-210 would be impacted with construction of Phase II of the **Selected Alternative**.

Local and through traffic would be maintained during construction in accordance with LADOTD's Standard Specifications for Roads and Bridges. Utilization of maintenance of traffic flow practices including phasing and timing of construction activities, and signing would be implemented.

Because much of the proposed work will take place adjacent to high-speed traffic, worker and motorist safety is paramount. Traffic control standards will be used to establish and maintain a safe work zone. Workers are required to meet LADOTD standards for worker visibility and equipment driven on roadways must meet proper signage and licensing requirements. The contractor will take appropriate measures to prevent, minimize, and control the spill of hazardous materials in the construction area. The use of construction equipment within sensitive areas should be minimized and all construction materials used for this project should be removed as soon as the work schedule permits. Any unanticipated hazardous materials and/or petroleum contamination encountered during construction would be handled according to applicable federal and state regulations for handling emergency discovery of hazardous materials. By adopting the safety and coordination efforts described above, it is anticipated that the **Selected Alternative** could be constructed with no adverse impacts to human health and safety or the environment.

3.12 Indirect and Cumulative Impacts

The Council on Environmental Quality regulations (40 CFR Subsections 1500 through 1508) define three types of impacts routinely assessed for proposed federal actions. Direct impacts, which are effects caused by the action and occur at the same time; indirect impacts which are caused by an action and are later in time or farther removed in distance, but reasonably foreseeable; and cumulative impacts. Cumulative impacts include the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. NEPA requires that the effects of the proposed project be considered in combination with effects from unrelated past, present, and reasonably foreseeable future actions as part of the decision-making process. Cumulative impacts can result from minor impacts that become significant in the aggregate as time passes.

The **Selected Alternative** would convert a small amount of undeveloped land into transportation use. This will improve accessibility to land and would likely induce further residential and commercial development within or near the project Study Area. Future development could cause additional loss of natural resources from development, and it is reasonable to predict that land values adjacent to improvements may increase.

Additional planned developments are reasonably expected to occur within or adjacent to the Study Area and would be considered a foreseeable action. Predominant cumulative effects from construction of the **Selected Alternative** include change in land use and growth in traffic through the project Study Area.

Future planned development is reasonably expected to occur under either the **Selected Alternative** or **No Build Alternative**. However, the rate of development is anticipated to be faster for the **Selected Alternative** than for the **No Build Alternative** and will have corresponding development effects to the social, natural, and cultural environments within the project Study Area.

4. Coordination and Public Involvement

Solicitation of Views

The Solicitation of Views (SOV) process is designed to inform interested agencies and persons of the proposed project and request early comments regarding potential adverse economic, social, or environmental effects or other related concerns. Federal, state, and local agencies were invited to participate in the SOV process. An SOV packet including a project overview, project study area map, and figures of alternatives was mailed to various federal, state, and local agencies requesting their views. In addition to identifying any concerns or issues as mentioned above, consultation to address cultural and historic resource issues pursuant to Section 106 of the NHPA (36 CFR Part 800) was also requested. The SOV packet and distribution list are included in **Appendix A**.

Agency, Local Officials, and Native American Tribal Outreach

In preparation for the public meeting and utilizing a mailing list of interested parties developed in coordination with the LADOTD, elected officials were invited to a Key Stakeholders and Officials meeting

on September 18, 2012, at the Springhill Suites Marriott, Lake Charles, Louisiana, from 1:30 p.m. to 2:30 p.m. A letter of invitation reminded the addressees that the public meeting would be held at the same location on the same day from 5:00 p.m. to 7:30 p.m. The key stakeholder and officials meeting preceded the public meeting and provided local officials an opportunity to preview the materials and displays related to the EA process for the proposed project.

Federal and state agencies, local officials, and key stakeholders were invited to participate in a December 3, 2012, key stakeholders/officials meeting. The key stakeholders and officials meeting was attended by 35 persons registering their attendance on the sign-in sheets, 17 public officials, and 20 members of the project consultant team which included FHWA and LADOTD personnel.

Public Outreach

The public was invited to participate in a Public Meeting on September 18, 2012, held at the Springhill Suites Marriott, Lake Charles, Louisiana, from 5:00 p.m. to 7:30 p.m. The purpose of the public meeting was to present an overview of the project and the preliminary alternates from the IJR and give the public an opportunity to provide comments that will help the study team in the evaluation of the alternatives. In addition, the meeting was an opportunity for any interested parties to request participation in Section 106 of the NHPA consultation to address cultural and historical resource issues related to the project. The meeting handout included the six alternatives and a comment form. The public meeting notice was published in the American Press on September 4, 2012, and September 11, 2012. In addition to the published public meeting notice, a public service announcement was made on KPLC TV on Monday, September 18, 2012.

The public meeting was attended by 46 persons registering their attendance on the sign-in sheets along with 13 public officials. One verbal comment was recorded by the transcriber at the public meeting and 155 written comments were received through the close of the comment period on September 28, 2012. In addition, a petition containing 177 signatures was received which was strongly against the closing of LaFleur Park. Written comments were primarily in favor of the project with most comments identifying an alternate preference. Of the total comments received, 3 preferred **Alternative 2**, 3 preferred **Alternative 4**, 9 preferred **Alternative 7**, 6 preferred **Alternative 7a**, 2 preferred **Alternative 16a**, and 133 preferred **Alternative 21b**, the Preferred Alternative.

Most commenters indicated they travel within the project area on a daily basis and that traffic congestion is the primary transportation/traffic problem experienced followed by unexpected or long delays and lack of alternate routes. Additional concerns included the potential closing of or diminished access to boat clubs, boat launches, and LaFleur Park located along Kiwanis Lane near Cove Lane.

Public Hearing

The public was invited to participate in a public hearing held on December 13, 2012. The purpose of the public hearing was to summarize the overall project and present the alternatives studied, including **Alternative 21b** (Preferred Alternative), for review and comment. Potential impacts to human, natural and cultural resources, relocation, and ROW assistance and costs were presented.

The public hearing notice was published in the American Press on November 13, 2012, and December 3, 2012. In addition to the published public hearing notice, the advertisement was posted on LADOTD's Environmental Section website and a public service announcement was made on KPLC TV on Wednesday, December 12, 2012. A public hearing notice was mailed or emailed to landowners within the Study Area, federal and state agencies, local officials, tribes, key stakeholders, and those attending the September 18, 2012, public meeting. The mailing list of interested parties was developed in coordination with LADOTD.

Fifty-eight persons registered their attendance at the public hearing held on December 13, 2012, along with 3 public officials and 20 members of the project consultant team which included FHWA and LADOTD personnel. The full record of this public hearing is available at LADOTD Headquarters in Baton Rouge, Louisiana, and is incorporated into this EA by reference. Twenty-seven written comments were received and 11 verbal comments were recorded by the transcriber at the public hearing. Four of the written comments were repeated to the transcriber during the public meeting. **Table 17** presents a summary of each comment received and a response.

Public concern was expressed by 20 commenters for bicycle and pedestrian facilities within the project area. The *City of Lake Charles Bicycle and Pedestrian Master Plan* (May 16, 2012) proposes sidewalk improvements along West Prien Lake Road and bicycle lane improvements along Nelson Road. Currently, the Master Plan does not include bicycle and pedestrian improvements along Cove Lane.

Initial design and implementation of **Alternative 21b** Phase I may not include construction of bicycle and pedestrian improvements. However, understanding that future planning may include bicycle and pedestrian improvements at Cove Lane, Phase I will allow for incorporation of bicycle and pedestrian facilities at West Prien Lake Road and Cove Lane continuing north along Cove Lane across Cline Canal. Nelson Road pedestrian and bicycle improvements will be evaluated and facilities incorporated during Phase II. Because Phase II may be modified after being re-evaluated, the extent of bicycle and pedestrian improvements for Phase II is uncertain. Bicycle and pedestrian improvements for both phases will be evaluated in accordance with LADOTD's Complete Street Policy and in coordination with the City of Lake Charles.

Two commenters expressed concern regarding ingress/egress from their driveways onto West Prien Lake Road south of Cove Lane. Inclusion of the roundabout at the West Prien Lake Road - Cove Lane intersection is intended to improve intersection operation and traffic flow.

Two individuals expressed a need for a frontage road along the south side of I-210 between Cove Lane and Nelson Road. Frontage roads are intended to function as a complete roadway system, providing full access to and from the interstate. Including a frontage road on the south side of I-210 only, as a part of **Alternative 21b**, does not meet FHWA interstate access policy. It was determined that including a new partial frontage road at this location was not viable.

No other alternative revisions to improve service or constructability or to further minimize impacts to sensitive environmental areas were identified.

Other Outreach

Subsequent to the public meeting, the public meeting presentation boards displaying the preliminary alternatives, typical roadway sections, and impact matrix, along with the public meeting PowerPoint presentation, were provided to and made available for viewing at the IMCAL office in Lake Charles, Louisiana. A movie version of the PowerPoint presentation was made available to the Calcasieu Parish Police Jury for broadcast on the Calcasieu Parish Government Channel. Both outreach activities were made available through the close of the public comment period, September 28, 2012

Subsequent to the public hearing, the public hearing presentation board displaying the Preferred **Alternative 21b** and impact matrix, along with the public hearing PowerPoint presentation, were provided to and made available for viewing at the IMCAL office in Lake Charles, Louisiana. A movie version of the PowerPoint presentation was made available to the Calcasieu Parish Police Jury for broadcast on the Calcasieu Parish Government Channel. Both outreach activities were made available through the close of the public comment period, December 28, 2012.

Public Meeting Summary

A public meeting summary and transcript or verbal comments received was prepared for the September 18, 2012, public meeting. The summary includes a discussion of the public meeting events, attendance, comments and outreach following the public meeting. A description of the meeting format, copies of handouts, meeting sign-in sheets, and written comments received by the close of the comment period, September 28, 2012, are appended to the summary. The public meeting summary was distributed to federal and state agencies and local governments.

Public Hearing Transcript

A public hearing transcript was prepared for the December 13, 2012, public hearing. The transcript includes a discussion of the public meeting events, attendance, comments, and outreach following the public hearing. A description of the meeting format, copies of handouts, meeting sign-in sheets, and written comments received by the close of the comment period, December 28, 2012, are appended to the transcript. The public hearing summary was distributed to federal and state agencies and local governments.

Table 17. Summary of Draft EA Comments and Responses

AGENCY WRITTEN COMMENTS		**If applicable, Section(s) in this document where comment is addressed.**
AGENCY: Louisiana Department of Transportation and Development		
Comment:	The analyses year on Figure 2, Summary of Detailed Traffic Analyses for Six Build Alternatives, needs to be indicated. Please also change the wording in the second paragraph on Page 9 accordingly.	Paragraph 2, Page 9
Response:	The Analysis Year, 2041, has been added to the title block for Figure 2.	
Comment:	On Figure 2, Summary of Detailed Traffic Analyses for Six Build Alternatives, change the Table Name from "Summary Results of Two-Way Segment Analyses" to '·Summary Results of Two-Lane Segment Analyses ".	Figure 2
Response:	The table name "Two-Way" has been deleted and replaced with "Two-Lane"	
Comment:	I recommend changing the Row Heading in Table 2. Summary of Detailed Analyses for Design Year 2041 from '"Traffic LOS" to "Traffic" because LOS has its own criteria ranged from A to F and LOS A is different than the 'A" represented in the Table. This may cause confusion that all alternatives can provide LOS A in the study area.	Table 2
Response:	Deleted LOS from row heading.	
Comment:	There is no Configuration Layout for Alternative 21 b Option 2. Please add the Configuration Layout for this alternative.	Figure 8
Response:	The W. Prien Lake Road relocation is identified on Figure 8 as "Relocated W. Prien Lake Road". Option 2 is identified as Optional W. Prien Lake Road Relocation". Added Option 1 and Option 2.	
Comment:	The name of Figure 8 needs to be changed from "Alternate 21 b" to "Alternate 21b Option l", please also change the wording in the second paragraph on page 23 accordingly.	Figure 8
Response:	Figure 8 represents Alternate 21b including any options. Suggest leaving the figure title as Alternate 21b. The titles Option 1 and Option 2 have been added to Figure 8.	
Comment:	On Figure 2, Summary of Detailed Traffic Analyses for Six Build Alternatives, there is no analysis result listed in '"Summary Results of Roundabout Analyses" for Alternative 21 b Option 2. Is this indicating that there is no roundabout proposed at this intersection for this alternative? If so, then this intersection analysis should be included in the Summary Results of Unsignalized Analyses. Please verify and add the analysis result for this intersection.	Figure 2
Response:	The reason there is analysis included for Option 1 but not Option 2 is because of the different relocation options. Option 1 included a roundabout because the existing W. Prien Lake Road alignment would be allowed to remain and would maintain all of the access south of the Target development. Because Option 2 requires a much shorter relocation, the existing W. Prien Lake Road alignment would become another access driveway for the hotel and maybe some other businesses in the southwest corner. Further analysis was not completed for Option 2 because it was dismissed for the traffic and operational reasons discussed. This driveway and all other points of access affected by the realignment would need to be evaluated further if this alternative were chosen.	

LOCAL GOVERNMENT WRITTEN COMMENTS		**If applicable, Section(s) in this document where comment is addressed.**
Government: City of Lake Charles.		
Comment:	The City of Lake Charles is responding to a growing national trend and a local demand for a network of complete streets that cater to motorists, pedestrians and cyclists. In accordance with the Louisiana Statewide Bicycle and Pedestrian Master Plan, the Lake Charles Bicycle and Pedestrian Master Plan has been developed. It is meant to serve as a guide for local decision-makers and the public in how best to plan for alternative modes of transportation in the future. In reference to the 210/Cove Lane/Nelson Road reconstruction, the City of Lake Charles requests consideration of bicycle and pedestrian facilities where appropriate, such as the Cove Lane underpass and connecting bridge, as well as bicycle and pedestrian facilities for the relocation of West Prien Lake Road behind the Target Shopping Center. Many residents in the local area have expressed concerns about the lack of pedestrian and bicycle infrastructure in all of the alternatives presented. Currently, the *City of Lake Charles Bicycle and Pedestrian Master Plan* does not include any plans for the Cove Lane underpass since this is a very recent project. However, knowing the future connectivity between Cove Lane, the casinos, Nelson Road, and the future Nelson Road Extension Bridge, long-term plans have been discussed to connect southwest Lake Charles with the downtown area. The Planning Department would be interested in assisting with any design discussions as we add these plans to our Master Plan. We appreciate your consideration and appreciate the thorough public input process	Sections 2.3.5, 2.3.6, and 4.
Response:	Public concern was expressed by 20 commenters for bicycle and pedestrian facilities within the project area. The *City of Lake Charles Bicycle and Pedestrian Master Plan* (May 16, 2012) proposes sidewalk improvements along West Prien Lake Road and bicycle lane improvements along Nelson Road. Currently, the Master Plan does not include bicycle and pedestrian improvements along Cove Lane. Initial design and implementation of Alternative 21b Phase I may not include construction of bicycle and pedestrian improvements. However, understanding that future planning may include bicycle and pedestrian improvements at Cove Lane, Phase I will allow for incorporation of bicycle and pedestrian facilities at West Prien Lake Road and Cove Lane continuing north along Cove Lane across Cline Canal. Nelson Road pedestrian and bicycle improvements will be evaluated and facilities incorporated during Phase II. Because Phase II may be modified after being re-evaluated, the extent of bicycle and pedestrian improvements for Phase II is uncertain. Bicycle and pedestrian improvements for both phases will be evaluated in accordance with LADOTD's Complete Street Policy and in coordination with the City of Lake Charles.	
INDIVIDUAL WRITTEN COMMENTS		**If applicable, Section(s) in this document where comments is addressed.**
S. Newman Lake Charles, LA		
Comment:	I would like to see all routes take into consideration cyclists and pedestrians. This is a very important aspect of the lives of many of our residence. Cyclists all need to have access to all routes in the city and as cyclists have the rights and responsibilities of vehicles, the cyclists should have the right to have access to all such routes.	Sections 2.3.5, 2.3.6, and 4.
Response:	Please see response on page 88 regarding bicycle and pedestrian facilities.	
B. Reams Sulphur, LA		
Comment:	Given that the basis for this roadwork is to accommodate local business & port growth, it is unclear how the alternatives are being developed to accommodate pedestrian & cycling traffic, both for commuting employees to the 2 resorts and for local pedestrian & cycling traffic that will be using the nearby roads. Also, how does the Preferred Alternative support the local Lake Charles pedestrian & cycling plan. Accommodating the increased road traffic is necessary but we should incorporate measures for pedestrians and cyclists	Sections 2.3.5, 2.3.6, and 4.
Response:	Please see response on page 88 regarding bicycle and pedestrian facilities.	

A. Newman Lake Charles, LA		
Comment:	Would like to see bicycle lanes available and considered in all plans. This would help tie our city together and offer access to south Lake Charles area that is used consistently for more than 30 years as an area for cycling.	Sections 2.3.5, 2.3.6, and 4.
Response:	Please see response on page 88 regarding bicycle and pedestrian facilities.	
D. Charlson Lake Charles, LA		
Comment:	21b is the only proposal that would solve our current & future traffic problems without causing problems @ the boat launch area.	
Response:	Comment noted	
R. McClain Lake Charles, LA		
Comment:	I strongly dislike the plan because of the: Traffic circles & diamond exchange Traffic circles will not be able to handle the volume of traffic & the diamond exchange is confusing, leading to accidents.	Sections 2.3.5, 2.3.6, and 4.
Response:	Inclusion of the roundabout at the W. Prien Lake Road - Cove Lane intersection is intended to improve intersection operation and traffic flow. This innovative design of the diverging diamond interchange eliminates conflicts with left turns onto Interstate 210 by shifting traffic to the left-hand travel lane.	
C. & C. Dyle Lake Charles, LA		
Comment:	We recommend a Frontage Road addition eastbound from Cove Lane entrance to the Nelson Road exit. A sketch is attached.	Section 2.
Response:	Including a frontage road on the south side of I-210 only as a part of Alternative 21b does not meet FHWA interstate access policy. Frontage roads are intended to function as a complete roadway system, providing full access to and from interstate. FHWA will not allow a new partial frontage road to be constructed, which means that Alternative 21b would be required to feature frontage roads on both the north and south sides of I-210, similar to Alternative 16b. Based on input provided by the public to date, Alternative 16b is not a locally preferred option.	
C. Cole Lake Charles, LA		
Comment:	I agree with the main proposal. The 4 point interchange at Cove Lane is most important. The Cove Lane access across 210 need bike/pedestrian lanes.	
Response:	Comment noted. Please see response on page 88 regarding bicycle and pedestrian facilities.	
J. & D. David Lake Charles, LA		
Comment:	This 21 plan is excellent. It does not require too much property loss and is very efficient. We have been in need of this traffic re-routing for at least 15 years; since southwest Lake Charles has really started to expand. Please notify us of any further discussions or meetings.	
Response:	Comment noted	
B. Verret Lake Charles, LA		
Comment:	Will the new interstate structures be aesthetically pleasing? Will the people who live near the new structure be protected from crime and noise? Who will maintain the road structures and at what cost? Who is paying for this besides the casino? What is going to be done to protect people from noise and crime? Will the environment be affected or effected from the construction. I have many woodpeckers, owls and birds that winter on the property and call it home. Who will replace the lost habitat? How will emergencies be dealt with when there are wrecks, will traffic backup and cause danger to citizens? What are the future plans for the area? Will the roads be safe for drivers? Please respect privacy and noise concerns.	Sections 2.3.5, 2.3.6, 3, 3.7, and 4.

Response:	Property values typically rise when improved access like a full interchange is constructed, which is also anticipated to occur with this project. The state or city will maintain their portion of the constructed roadways. Elements of the project will be designed and constructed to meet acceptable state and federal highway/interstate design criteria. The interchange is the first of two potential construction phases. The decision has been made to re-investigate the traffic needs after the interchange is built to determine if the Phase II elements are needed as currently proposed or if other improvements would better meet the traffic needs. Sufficient funding will be in place to complete both phases of the project including state, local, and private monies. Traffic projections expect no significant rise in traffic volumes south of the interchange along W. Prien Lake Road. Traffic volumes will be lower along the portion of W. Prien between Kiwanis and Nelson with the selected alternative than if the project is not built. The improvements proposed in the selected alternative are not expected to materially change. The project will benefit the entire region around the interchange, not just one development. Evaluation of wetland resources and habitat for the proposed project has been coordinated with the U.S. Army Corps of Engineers, the U.S. Fish & Wildlife Service, and the Louisiana Department of Natural Resources.	
B. & G. Toothman Lake Charles, LA		
Comment:	Please consider safety for pedestrians and cyclists; include bicycle lanes and safe walking areas. It would be nice to see a bike route all the way around both resorts when complete.	Sections 2.3.5, 2.3.6, and 4.
Response:	Please see response on page 88 regarding bicycle and pedestrian facilities. The planned resort developments are independent of the proposed project in that they are privately developed. However, they are required to comply with local and parish regulations and incorporation of bicycle and pedestrian facilities would be addressed during the local approval process.	
B. Lumpkin Lake Charles, LA		
Comment:	I suggest a bike and pedestrian lane at least dedicated along the Cove Lane over/underpass and waterway bridge with hopes that Ameristar and L'Auberge will support a continuation along their driveways and/or a bike/pedestrian trail along the outskirts of the golf course/resorts. This would connect bicyclists and pedestrians to Nelson Road from West Prien Lake. In the future there is potential for a bicycle/pedestrian lane on the Nelson Road Contraband Bayou Bridge which would provide further connection for bicyclists and pedestrians to the downtown area. In addition, bike lanes should be considered on the proposed roadway behind Target connecting Prien Lake to Nelson. These considerations can GREATLY improve the quality of life for residents as well provide increased tourism.	Sections 2.1, 2.3.5, 2.3.6, 3.4 and 4.
Response:	Please see response on page 88 regarding bicycle and pedestrian facilities. The planned resort developments are independent of the proposed project in that they are privately developed. However, they are required to comply with local and parish regulations and incorporation of bicycle and pedestrian facilities would be addressed during the local approval process.	
D. Cronan Lake Charles, LA		
Comment:	Concerning the new bike lane on "Ameristar Drive", proposed spaces as well as more of an interesting ride could be used. Maybe scaled detail drawings involving bicycle amenities such as parking, resting areas, information kiosks, outdoor art galleries, and other program amenities could contribute to the success of the proposed bike lane. Really good work for the preferred plan. For the overpass on Klein Canal, possible wayfinding amenities such as historic reliefs or sculpture can be used to make the the transition interesting for cyclists, pedestrians, drivers and boats alike. For ARCADIS, historic precedents and analysis should be considered within construction to improve the overall concept of the project. For STANTEC, road alignment for a more interesting ride should be taken into account.	Sections 2.3.5, 2.3.6, and 4.
Response:	Please see response on page 88 regarding bicycle and pedestrian facilities. The planned resort developments are independent of the proposed project in that they are privately developed. However, they are required to comply with local and parish regulations and incorporation of bicycle and pedestrian facilities would be addressed during the local approval process. Evaluation, identification, and assessment of potential cultural resources for the proposed project have been conducted in accordance with and coordinated with the State Historic Preservation Office. Roadway alignment is designed in accordance with LADOTD and FHWA policies and standards.	

R. Whelan Lake Charles, LA		
Comment:	Lake Charles really needs biking lanes. I'm hoping you consider installing bike lanes on this new road. I'm with the Jolly Rogers Bike club and have been riding for +20 years. I'm 63 years of age & ride at least once a week. Please consider this request to improve our way of a healthy life in Lake Charles.	Sections 2.3.5, 2.3.6, and 4.
Response:	Please see response on page 88 regarding bicycle and pedestrian facilities.	
S. Smith Lake Charles, LA		
Comment:	I would like to see a means of alternative transportation addressed with the new construction. It is possible for cyclists and runners to co-exist with automobiles safely. Bike lanes and sidewalks need to be implemented for this to be possible. Available bike lanes and sidewalks would encourage people to walk/bike to work which would result in less traffic on the roads.	Sections 2.3.5, 2.3.6, and 4.
Response:	Please see response on page 88 regarding bicycle and pedestrian facilities.	
K. Moss, Jr. Lake Charles, LA		
Comment:	If preferred alternative for project is selected, the speed limit on Prien Lake Rd. near Cove Lane needs to be decreased from 45 mph to 35 or 40 mph. As it is now, it is very difficult to get out of your driveway onto Prien Lake Rd. south of Cove Lane, especially at peak morning and evening commutes. Recreational boaters accessing LaFleur Park boat ramp & Prien Lake Park boat ramp already have trouble getting onto and off Prien Lake Rd. due to traffic load and present speed limit of 45 mph. Decreasing speed limits in this residential/recreational area will make it safer for all.	
Response:	A change in speed limit on existing W. Prien Lake Road would be determined and set by the LADOTD District Traffic Engineer after construction is completed and a speed study is conducted. A request can be made to the District to study this issue at any time.	
D. Sockrider Lake Charles, LA		
Comment:	The Alternate 21b that you are proposing is not a good plan. I live south of the turnaround you are proposing. Sometime I sit 15+ minutes waiting to get out of my driveway with the current stop sign. I can only imagine what the turnaround is going to do to the traffic. How do you propose the residents on Prien Lake Road ingress and egress out of their driveways?	Sections 2.3.5, 2.3.6, and 4.0
Response:	Inclusion of the roundabout at the W. Prien Lake Road - Cove Lane intersection is intended to improve intersection operation and traffic flow.	
P. Ford Ragley, LA		
Comment:	Would like to see bike lanes to tie north & south LC. Want to see Lake Charles become a more bike friendly community like the bigger cities like Austin, TX. For this to happen, we need to start now. This plan doesn't take this into account. Although I don't live in Lake Charles, this is where I work and spend most of my week, and cycle in the area 3 days per week.	Sections 2.3.5, 2.3.6, and 4.0
Response:	Please see response on page 88 regarding bicycle and pedestrian facilities.	
C. Comeaux Sulphur, LA		
Comment:	To become known as a progressive community, it is imperative that this construction, and all future construction, be designed to include bike lanes. If we provide the routes for people to ride/walk safely for commute & exercise then not only will we help the economy, local merchants, and image, we will be doing our part to contribute to the health of the community.	Sections 2.3.5, 2.3.6, and 4.0
Response:	Please see response on page 88 regarding bicycle and pedestrian facilities.	

D. Ouellette Lake Charles, LA		
Comment:	The Preferred Alternate seem most logical from a traffic flow/accessibility standpoint. The 2 biggest issues for me (a recent transplant from Chicago) are environmental soundness (i.e. impact on wetlands & habitats) and that facilities are made available for pedestrians & cyclists. A bike lane or path constructed along with the improvements would make for greater use by the public.	Sections 2.3.5, 2.3.6, 3.3 and 4.0
Response:	Please see response on page 88 regarding bicycle and pedestrian facilities. Evaluation of wetland resources and habitat for the proposed project has been coordinated with the U.S. Army Corps of Engineers, the U.S. Fish & Wildlife Service, and the Louisiana Department of Natural Resources.	
D. Derbonne Pacheco Lake Charles, LA		
Comment:	Don't ruin lake. Push exit down south. Save us money. Quit being bullies.	
Response:	Comment noted	
V. Woodson Lake Charles, LA		
Comment:	This St. project #H 010151.2 is a very bad idea. The state is broke and DOTD can't fix roads it is in charge of to fix. All construction projects should be put on hold because of the state deficit. Especially those which would benefit only a few. People act like I'm selfish wanting to save my home of 50 years. But I say how selfish is the casino wanting the taxpayers to pay $50 to $100 million to service the casino with a new entrance to benefit them. There's selfish – then there is SELFISH!!! The state has a BIG $2 Billion deficit – DON'T SPEND THE MONEY ON THIS PROJECT! CANCELL IT!!! It also appears dangerous – to close to the I-210 Bridge!!!	Section 2.
Response:	Elements of the project will be designed and constructed to meet acceptable criteria. Funding sources currently available include state, local, and private monies. The project will benefit the entire region around the interchange, not just one development.	
D. Husers Lake Charles, LA		
Comment:	My wife and I are opposed to the Cove Lane Interchange project in Lake Charles, LA. We live at 3606 W. Prien Lake Rd which is within a mile of this project. We already have too much traffic in front of our house. We have so much traffic that it is difficult to get on the road at times. I would prefer one of the options that would take traffic off of 210 near Nelson Road. There are at least 3 alternatives that would have less of an impact on residential areas.	Sections 2.3.5, 2.3.6, and 4.0
Response:	Inclusion of the roundabout at the W. Prien Lake Road - Cove Lane intersection is intended to improve intersection operation and traffic flow.	
J. Taylor Lake Charles, LA		
Comment:	On the liability issue. Would the state be liable or the casino, or the engineer firm be liable for a severe accident due to a poor design? The problem with Cove Lane will be as it always has been, it's close location to the bottom of I-210 bridge. Moving the exit "100' or 200'" east will do nothing on the safety issue. Turning Cove Lane into an entrance instead of an exit would change this. The present design has a section that was approved in 2004 and built at that time. Could this be "grandfathered in". Cove Lane becoming an entrance would greatly reduce traffic on Nelson Rd. The problem with the casino entrance is the crossing from the Texas turnaround through entering I-210 west from Nelson Road. Changing the present casino entrance into an exit going west on I-210 west would change all that. It would allow west bound traffic to flow more easily. Since L'Auberge has purchased Ameristar a new casino entrance on I-210 west bound lane could be built 1000' to 2000' west of the present casino entrance. This would allow an easier merger of traffic from the Texas turnaround. All of these steps would cost less and create a better traffic flow. They would take far less time to build. They would keep casino and residential traffic separated. They would save Prien Lake park area from casino overflow. They would save the state enough money to take care of other state roads. This as a substitute for St. Proj # H010151.2 could save the state from as big a deficit as it has. There's another reason not to do this St. Proj #H010151.2. It would nullify every bit of property tax money the local governments have collected from L'Auberge from 2006 to 2012	

Comment:	There is an alternative to spending $50 million to $100 million on this project H.010151.2. Cove Lane was rebuilt in 2004 with an extension going east. An acceleration lane connecting this section to I-210 going east could be built. Cove Lane could be closed as an exit and opened as an entrance. Traffic could enter going east and using the Texas turnaround co. west. This would take much traffic off of Nelson Road. This plan was obviously approved in 2003 because it was built in 2004. It is probably "grandfathered in". DOTD owns the right of way and wouldn't have to displace anyone. Now that the casino has merged with L'Auberge. There is no need at all for this new project. They can use the same entrance. The state is broke. They should not spend this money at all!!!!! All gaming revenue received by local public bodies would be completely nullified by this project. L'Auberge paid $18.7 million in property taxes on it's hotel from 2006 to 2012. Even if doubled to allow for inventory, at $37.4 million, it doesn't even touch the entire amount of this project at $100 million. Don't spend the money!!! The state is broke. Note American Press headlines on Dec. 14, 2012 front page "LA budget picture grows bleaker" Second headline "Plan in works to ease traffic flow" Hmm!! State broke – wants to spend $50 to $100 million on new interchange.	
Comment:	On this design al 21-B on St. Proj. #H.010151.2 who will be liable for flaws in the design? The state or the engineering firm hired by a casino, if there is a bad accident due to its close location to I-210 Bridge. The state is broke!!! This design is design year 2041 with a build date of 2021, why was it moved up to 2014? Is this an attempt to get something done that will not conform to changing standards, again who would be liable, the state or the casino's design firm. The state can't afford to repair roads for which it is responsible. Don't do further construction projects when you can't take care of what you have and the state is in a deficit budget!!!!!	
Response:	Elements of the project will be designed and constructed to meet acceptable state and federal highway/interstate design criteria. According to FHWA policy, the Cove Lane interchange would require all four entrance and exit ramps. Providing only one or two more ramps would not be allowed. An additional entrance to I-210 westbound just west of Nelson Road is not allowed by FHWA policy. Funding sources currently available include state, local and private monies. The project will benefit the entire region around the interchange, not just one development.	
VERBAL COMMENTS		**If applicable, Section(s) in this document where comments is addressed.**
M. Adams Lake Charles, LA		
Comment:	I am president of the Lake Charles Triathlete Club. I live over by the port area of Lake Charles, and my concern is in getting a way for us to safely go on bikes or on foot across the new proposed bridge that's supposed to cross Contraband Bayou to tie in with the 21-B proposal that's here so that we can essentially get from the downtown civic center area all the way out to Graywood safely on roads that have pedestrian lanes and bicycle lanes. Those are my concerns. That kind of sums it up. Right now the interchange at Nelson and Prien Lake Road is entirely too dangerous. We've all ruled it out. We lost a good friend riding on Nelson Road this year to a vehicular accident with a bike, so we want our voice to be heard, of which, you know, I've got forty-five, fifty members. A bicycle club here in town has well over a hundred members. And there's a lot of community support to develop a more pedestrian friendly community. I know, you know, streets that were built years ago in this town didn't necessarily have 2 that in mind. There's not even sidewalks on probably who knows what percentage of the roads around here, so as a result we run in streets with cars, dangerous, in the middle of the -- you know early in the morning 4:00 a.m., and this would provide us a safe alternative for us, for our kids, for the whole community. Thank you.	Sections 2.3.5, 2.3.6, 3.3 and 4.0
Response:	Please see response on page 88 regarding bicycle and pedestrian facilities. Currently, the project study area and vicinity have minimal sidewalks and no bike lanes that meet the City of Lake Charles plan goal for connectivity. Alternative 21b can accommodate sidewalks within the designated sidewalk corridor along W. Prien Lake Road west of Nelson Road. The proposed roundabout at W. Prien Lake Road and Cove Lane can easily be adapted to accommodate future sidewalks. If a new sidewalk corridor is contemplated north of W. Prien Lake Road along Cove Lane, the I-210 bridge underpass provides sufficient width for future sidewalks. However, safety improvements would be necessary at the Cove Lane interchange ramp terminals which are not signalized and additional width would be required for the bridge over Cline Canal.	

R. Biggs Lake Charles, LA		
Comment:	I understand that they are supposed to be taking into consideration community bicycle and walking and running when they build the new construction roads. I would like them to consider a bike lane or what's designated for bikers or runners that helps connect the downtown area to the South Lake Charles area so you can safely get from one area to the other. That's all.	Sections 2.3.5, 2.3.6, 3.3 and 4.0
Response:	Please see response on page 88 regarding bicycle and pedestrian facilities.	
K. Noreuil Sulphur, LA		
Comment:	I'm with the Jolly Roger Cycling Club, do a lot of riding. I live in Sulphur but I ride over here and all over Calcasieu Parish. And in looking at this proposal, the one thing that is required by the state as well as the city plan for pedestrian and bicycle safety is to look at how pedestrians and cyclists will be included in this so there will be biking lanes and sidewalks, etcetera. So at least considering that -- any time they're putting in new roads, they're supposed to consider that up front. It's required by the state and the city, and I don't see anything in here, there was no mention in the video, and so I would like to ask that they do that and start looking at this before everything is finalized at least to see if there are some routes that could be incorporated for cyclists to get from south of town down towards the civic center area. We have a large biking event every year during Contraband Days, the Tour LaFitte, and that goes south of town and comes back. We usually come down this way and hit Nelson, go over to Lake Street. Finally had to give that up because it's just too dangerous to ride even for experienced cyclists, and you have a lot of inexperienced cyclists riding in that type of event because it's a fun ride. Not all of them are the six-mile rides. There's some five-, ten-, twenty-five-, thirty-mile rides, so a lot of different people are riding and trying to support good causes, charitable causes, and so we get more and more people participating in those types of events. Also as a former officer with the cycling club, I've talked to a lot of people that are just buying bikes or getting ready to buy new bikes and trying to encourage them to ride with us, and they're extremely hesitant. They said, no, I'm just going to stay in my neighborhood because I really don't feel safe getting out on the roads. And since this is, again, a state and a city thing to start looking at that to make it safer, we will get more people riding the bicycles, going to stores, doing it for exercise, staying in better health if we had safe places to ride. One of the comments that I take issue with in the city plan was the comment about the biking lane they have on Gauthier. They said we have -- the only bike lane we have in the whole city is a 2.74 mile bike lane on Gauthier. They said this is great, but that's the only one we have. My comment would be this is pathetic for a city this size. 2.7 miles is no distance at all, even for a casual rider, so that's -- it's just not really usable other than for a short section, you know, that all of us cyclists are riding several times a week. It doesn't help us out that much. 2.7 miles out of thirty or sixty miles isn't very much. So, anyway, I would like for that to be considered before they finalize all these things to look specifically at a path that would get us from the Prien Lake area over here by the lake and further out and then down to the civic center area, at least that start. That will do it for now.	Sections 2.3.5, 2.3.6, 3.3 and 4.0
Response:	Please see response on page 88 regarding bicycle and pedestrian facilities.	
M. Groton Lake Charles, LA		
Comment:	My concerns with the project mainly involve bike lanes and pedestrian lanes and how to, on the front end in the planning, make the road and intersection such that it causes the least amount of interaction with cyclers, joggers and vehicles and try to plan where everybody can peacefully co-exist going forward as compared to fighting about it and sorting it out as it goes. That's why I came, to see what it was and how that could be addressed for, I guess, the maximum number of people to use it in a peaceful manner.	Sections 2.3.5, 2.3.6, 3.3 and 4.0
Response:	Please see response on page 88 regarding bicycle and pedestrian facilities.	
D. Park Lake Charles, LA		
Comment:	I'd just like to see if we can incorporate bike lanes as part of the project which would potentially allow people to go from the civic center along this new construction road all the way out to Graywood if possible.	Sections 2.3.5, 2.3.6, 3.3 and 4.0
Response:	Please see response on page 88 regarding bicycle and pedestrian facilities.	

C. Myers Lake Charles, LA		
Comment:	I'd like to hope that the city will add bicycle and pedestrian lanes in the new project, because there are a lot of cyclists in the local area. We don't have any way to traverse the city, and if lanes are implemented into the project to allow travel safely, say, by bicycle or by foot through the city, then this will generate a lot more traffic by that interface, so I'm hoping the city will do that because I'm tired of getting run over. I've seen the ER one too many times, and hopefully the city will take steps to make it a safer city for us, for cyclists. And every time I've been run over, it's been in broad daylight, and I've never been found at fault by a ticket, but it didn't matter. I hope they'll take steps to try to save life. That's about it.	
Response:	Please see response on page 88 regarding bicycle and pedestrian facilities.	
G. Landry Lake Charles, LA		
Comment:	I'm an avid runner. I'm a runner in the area. Been here all my life. I cycle. And right now to get from different areas of town, from the south part of town to the north part of town where the civic center and downtown area is, it's just very difficult, and having this ability to be able to connect the south part of town through these new roadways will eventually make it safer. Right now we're just very limited in Lake Charles with safe places to actually run that are adequate. We can't cycle anywhere in Lake Charles. There's no safe lanes for us to cycle. Everything is way south of town out where you can't get anywhere from one side to the other, and having this interchange right here with Ameristar and this Cove Lane project is going to make it a lot safer and offer more opportunity for people that do want to run and walk and cycle to get from Point A to Point B, and it will connect it to the areas -- to the downtown area, to the historic district, Shell Beach Drive, civic center. Let's see. I think there's more people out there than what people realize that are runners, walkers and cyclists that would utilize these amenities if they're put in, and we know as a sporting community, as a running community, cycling community, if we don't do this now, we may never get it done. And the way that I understand it, any new projects like this, when you do this, it's the law that they allocate funds for biking and running and walking paths for the community. I just think it would be a shame if Lake Charles missed this opportunity to ask for these facilities. Especially in the entertainment area here with both casinos, it gives the patrons places to walk and run and ride bikes. We want people coming here for entertainment. We've got to have some places for these people other than going gambling or whatever. They can exercise. I've run state to state, and most of the places I go, their towns have cycle -- I just got back from Dallas this past weekend. There are bicycle paths, there are running paths. I've been to Alabama. There's cycling paths and running paths for people to exercise. If they want to draw tourists -- a lot of people like myself, I'll get information on what facilities are out there when I travel so I have a safe place to go run. It could be a place where I can bring my bike and go for a ride, and a lot of times that determines whether I'm going to go to a particular area. So I encourage our local officials, the mayor, city council, police jury, to support this and back this as a community.	Sections 2.3.5, 2.3.6, 3.3 and 4.0
Response:	Please see response on page 88 regarding bicycle and pedestrian facilities.	
B. Verret Lake Charles, LA		
Comment:	I'm worried about drainage quite a bit. How will emergencies be dealt with at the bottom of the bridge, car accidents and things within this weird intersection? Is the safety of the public going to be affected because they're adding this thing that's supposed to help us? Is this just the first and second phase of ten phases of stuff that they won't tell us about yet? Will construction of a bridge toward the port relieve the pressure this is trying to fix? I'm just worried I'm going to have to move…where do I go?	Section 2.1, 2.2, 3, 3.1, 3.23, and LADOTD Acquisition of Right of Way and Relocation

Response:	Detailed hydraulic studies will be completed during the final design to determine any changes to flood elevation as a result of construction of the project. A safety analysis was completed for the Interchange Justification Report and was based on data supplied by LADOTD for the time period between 2007 and 2010. The decision has been made to re-investigate the traffic needs after the interchange is built to determine if the Phase II elements are needed as currently proposed or if other improvements would better meet the traffic needs. The Interchange Justification Report considered the completion of the Nelson Road Extension and Bridge project across Contraband Bayou north to Sallier Street. The Nelson Road extension is independent of and located northeast of the project Study Area. Any individual, family, business, or farm displaced by a federal or federally assisted program shall be offered relocation assistance services for the purpose of locating a suitable replacement property. Relocation services are provided by qualified personnel employed by the Agency. It is their goal and desire to be of service to you and assist in any way possible to help you successfully relocate. A relocation counselor from the Agency will contact and interview you to find out your needs. Relocation services and payments will be explained in accordance with your eligibility. During the initial interview your housing needs and desires will be determined as well as your need for assistance.	

5. References

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Appendix A

Agency Coordination

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Appendix A-1

Solicitation of Views and Responses

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Appendix A-2

Solicitation of Views – Tribes

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Appendix A-3

Section 106

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Appendix A-4

LADOTD Access Review Board
Correspondence

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Appendix B

Interchange Justification Report
(See CD at Back of Report)

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Appendix C

Wetland Report

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Appendix D

Noise Analysis Technical Report
(See CD at Back of Report)

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Appendix E

Sections 3.9 – Hazardous Materials Sites and Underground Storage Tanks and
Section 3.10 – Pipelines; Oil & Gas Wells and Water Wells
(See CD at Back of Report)

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