NEW ORLEANS
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New Orleans Rail Gateway Program

Jefferson and Orleans Parishes

SPN H.005168

Avondale Planning and Environmental Linkages Stage 0 Report

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in association with

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LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Michael Baker INTERNATIONAL

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INTRODUCTION

The United States Department of Transportation's (USDOT) Federal Railroad Administration (FRA) and the Louisiana Department of Transportation and Development (DOTD), in coordination with the USDOT Federal Highway Administration (FHWA), the New Orleans Regional Planning Commission (RPC) and the railroads operating in the New Orleans metropolitan area (Norfolk Southern (NS), Canadian Pacific Kansas City (CPKC) [formerly Kansas City Southern (KCS)], Union Pacific (UPRR), Burlington Northern Santa Fe (BNSF), Canadian National (CN), and CSX) represented by the Association of American Railroads (AAR), New Orleans Public Belt Railroad (NOPB), and Amtrak are evaluating the possible at-grade crossing consolidation, road-over-rail grade separation and/or closure of Live Oak Boulevard, Willswood Lane, George Street and Avondale Garden Road, which are all roadways owned and maintained by Jefferson Parish. These improvements are part of the New Orleans Rail Gateway (NORG) Program (Program) and were identified as Projects W10 through W13 respectively in a 2007 NORG Infrastructure Feasibility Analysis (RPC, 2007). The goal of the Program is to improve the existing and future flow of rail traffic through the NORG while reducing vehicle congestion at crossings, improve emergency evacuation procedures, improve the reliability of marine traffic passing through the Industrial Canal under the Almonaster Bridge, and improve environmental quality.

Jefferson Parish passed an August 25, 2021 Resolution supporting the study (see Appendix A).

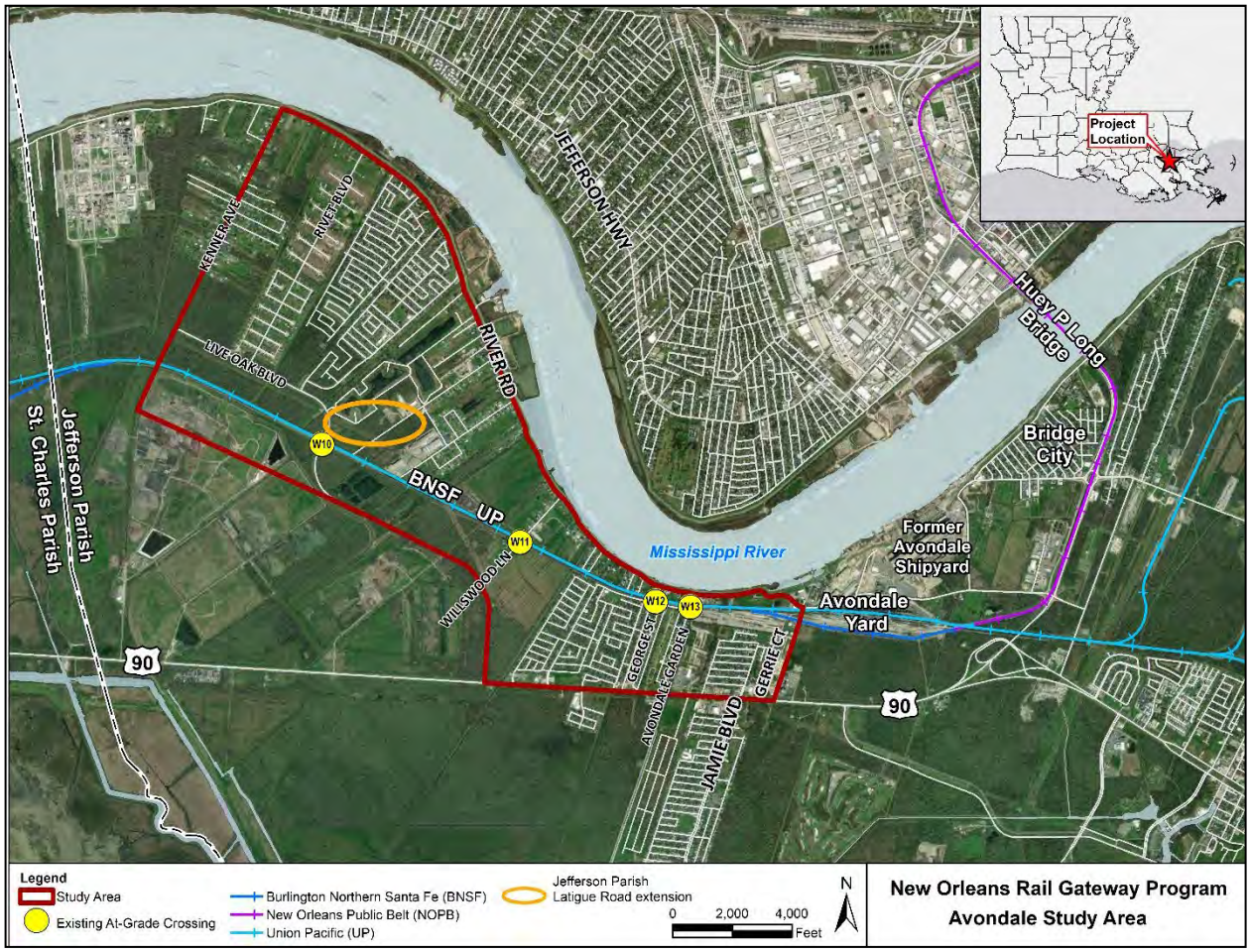
The Study Area is approximately 5.82 square miles in size within Jefferson Parish (see Exhibit IN-1). The Study Area encompasses the potential Alternatives and is roughly bounded on the west by Kenner Avenue; on the north by River Road (LA 18); on the east through Avondale Yard parallel to Gerrie Court to US 90; and on the south by US 90 and Live Oak Boulevard.

This document details the development of preliminary alternatives through alternatives evaluation against the Purpose and Need, environmental resources, and other criteria, Federal funding opportunities and the identification of alternatives that could be further advanced into DOTD's Project Delivery Process. Supporting documentation is provided in the appendices and supporting technical studies.

This document, including its appendices and supporting technical studies, was developed as a planning product. DOTD intends to adopt or incorporate by reference all or any portion of the planning products (e.g., decisions, analyses, studies, other documents) which are sufficient to meet the requirements of the National Environmental Policy Act of 1969 (NEPA, 42 U.S. Code [USC] 4321 et seq.) and Section 1502.21 of title 40, Code of Federal Regulations (as in effect on the date of enactment of the FAST Act), from this planning review into the environmental review process in accordance with 23 USC Chapter 1 §168 (b)(1).

To ensure that this document can be adopted or incorporated into the NEPA process, the FHWA Planning and Environmental Linkages (PEL) Questionnaire is included in Section 5. DOTD's Stage 0 Scope and Budget Checklist and Stage 0 Environmental Checklist are included in Appendix M.

Exhibit IN-1: Study Area



1. PURPOSE AND NEED

1.1 Project Purpose

The purpose of the Avondale PEL Study is to evaluate possible improvements to four at-grade highway-rail crossings to enhance safety, mobility, and multi-modal connectivity, support regional economic development, and improve/encourage a multi-use/shared use environment within the Waggaman/Avondale area.

1.2 Project Need

1.2.1 Improve Safety

Crash data obtained from DOTDs Crash 1 database for a three-year period from 2017 to 2019 shows that 151 crashes occurred within the Study Area. Of those 151 crashes, only four (4) crashes took place at the railroad crossings. The Avondale Garden Road railroad crossing had two (2) crashes, and the Willswood Lane and Live Oak Boulevard railroad crossings each had one (1) crash. The George Street railroad crossing had no crashes in the three-year period. The crashes at these four railroad crossings are described below.

The Federal Railroad Administration (FRA) database was also searched for crashes at the railroad crossings. No additional crashes occurred at any on the four railroad crossings after 2007.

Avondale Garden Road Railroad Crossing

One crash occurred on the northbound approach, south of the railroad tracks. The crash was classified as Other and was caused by driver error when the driver reversed into the vehicle behind them.

One crash occurred on the southbound approach, in between the two sets of railroad tracks. The crash was classified as Other and was caused by driver error when the driver reversed into the vehicle behind them.

George Street Railroad Crossing

No crashes occurred at this location.

Willswood Lane Railroad Crossing

One crash occurred on the northbound approach in between the two sets of railroad tracks. The crash was classified as a Non-Collision and was caused by driver error when the driver misjudged the slope of the tracks on the road resulting in the vehicle undercarriage becoming stuck on the tracks.

Live Oak Boulevard Railroad Crossing

One crash occurred on the southbound approach, north of both sets of railroad tracks. The crash was a Rear End collision caused by driver inattention when the driver failed to stop behind vehicles stopped for the passing train.

Pedestrian- and bicyclist-related crashes were reviewed during the five (5) year period from 2015 to 2019. Three (3) pedestrian and one (1) bicyclist crashes occurred within the Study Area, buy there were no crashes observed for these crash types at any of the four railroad crossings.

1.2.2 Improve Mobility

Mobility describes the ease in which vehicles and other users of the roadway travel to and from their destination. A common measure of mobility is travel time, which is impacted by delays.

Roadway Rail Conflict

Live Oak Boulevard, Willswood Lane, George Street and Avondale Garden Road are all two-lane roadways owned and maintained by Jefferson Parish. The traffic characteristic for these roadways follows. George Street and Avondale Garden Road are both posted "No Truck Route" with a 5 Ton weight limit.

Table 1-1: At-Grade Crossing Characteristics

	Avondale Garden Rd	George St	Willswood Ln	Live Oak Blvd
Functional Classification*	Minor Urban Collector	Local Road	Local Road	Minor Urban Collector
Speed Limit (mph)**	20	20	40	40
Thru Trains*	20	16	15	14
Switching Moves*	24	16	16	0
2021 AADT**	1,070	1,910	1,210	3,610
Trucks (%)*	2	2	10	6
School Buses***	9	14	12	17

Sources: * - 2010 New Orleans Highway Functional Classification Urbanized Area Map[1]
** - Traffic Engineering Process and Report (TEPR) – Chapter 2: Existing/No-Build Analysis (DOTD, 2024)
*** - Jefferson Parish Schools, April 13, 2022

UPRR and BNSF currently operate trains in the Region between 10,000 and 12,000 feet in length and expect lengths to approach 14,000 feet in the future. Each day, multiple thru freight trains operate across the four crossings and switching operations occur across the Avondale Garden Road, George Street and Willswood Lane crossings.

A rail operations analysis was performed to determine thru train and switching operations crossing occupancy times. Occupancy time represents the time when vehicles (personal vehicles, trucks, buses, and emergency vehicles) cannot physically travel across the rail crossing. Occupancy times at each crossing differ depending on whether the train is accelerating from or decelerating into Avondale Yard. Eastbound trains decelerating as they approach Avondale Yard resulted in the longest occupancy times. The 2021 Existing and 2048 No-Action thru train occupancy times for each crossing follow.

Table 1-2: 2021 Existing and 2048 No-Action Thru Train Occupancy Times

	2021 Existing		2048 No-Action	
Roadway-Rail Crossing	Westbound Thru Trains (minutes:seconds)	Eastbound Thru Trains (minutes:seconds)	Westbound Thru Trains (minutes:seconds)	Eastbound Thru Trains (minutes:seconds)
Avondale Garden Road	7:21	9:00	9:03	12:25
George Street	7:02	13:11	8:44	16:36
Willswood Lane	7:01	13:23	8:43	16:48
Live Oak Boulevard	6:35	13:23	8:42	16:48

Source: NORG Avondale PEL Study – Rail Operations Analysis (DOTD, 2021)

[1] 2010 New Orleans Highway Functional Classification Urbanized Area Map, Louisiana Department of Transportation and Development. Accessed March 19, 2025.
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Multimodal/Data_Collection/Mapping/Proposed%20Urbanized%20Maps/New_Orleans.pdf

Switching generally consists of making up and breaking up trains, storing and classifying cars, serving industries within yard limits, and other related purposes.

The USDOT Crossing Inventory Forms indicate that switching moves occur either only across the Avondale Garden Road crossing or across three crossings (Avondale Garden Road, George Street and Willswood Lane). No switching moves occur at the Live Oak Boulevard crossing. Switching moves occupancy times are as follows.

Table 1-3: Switching Occupancy Times

Roadway-Rail Crossing	Switching Moves @ Avondale (minutes:seconds)	Switching Moves @ Avondale, George and Willswood (minutes:seconds)
Avondale Garden Road	3:00	5:53
George Street	-	4:06
Willswood Lane	-	3:00
Live Oak Boulevard	-	-

Source: NORG Avondale PEL Study – Rail Operations Analysis (DOTD, 2021)

The 2021 Existing and 2048 No-Action daily cumulative occupancy times considering both the number of daily thru trains and switching moves follow. The Avondale Garden Road crossing occupancy time is forecast to increase from an existing 7.80 hours daily to 11.27 hours daily in 2048.

Table 1-4: 2021 Existing Daily Cumulative Occupancy Times

Roadway-Rail Crossing	Westbound Thru Trains (hours)	Eastbound Thru Trains (hours)	Switching Moves (hours)	Total (hours)
Avondale Garden Road	1.23	2.23	4.34	7.80
George Street	0.94	1.78	2.99	5.71
Willswood Lane	0.94	1.54	0.80	3.28
Live Oak Boulevard	0.77	1.05	-	1.82

Source: NORG Avondale PEL Study – Rail Operations Analysis (DOTD, 2021)

Table 1-5: 2048 No-Action Daily Cumulative Occupancy Times

Roadway-Rail Crossing	Westbound Thru Trains (hours)	Eastbound Thru Trains (hours)	Switching Moves (hours)	Total (hours)
Avondale Garden Road	1.96	3.64	5.67	11.27
George Street	1.60	2.80	3.92	8.32
Willswood Lane	1.45	2.77	1.05	5.27
Live Oak Boulevard	1.31	1.86	-	3.17

Source: NORG Avondale PEL Study – Rail Operations Analysis (DOTD, 2021)

Roadway Operational Analysis

Roadway traffic at these railroad crossings is greatly affected when a train is present. The occupancy time represents the time when vehicles (personal vehicles, trucks, school buses, and emergency vehicles) cannot physically travel across each rail crossing. This restricted movement leads to a complete stoppage of vehicle travel and vehicle turning movements at nearby roadway intersections. The queueing of vehicle traffic extends varying distances depending on the length and speed of the train and the vehicle traffic at that specific time of day. The busier the time of day, the more congested the roadway network will be when a train is crossing.

Level of Service (LOS) analysis is widely accepted for evaluating traffic conditions, generally in terms of such service measures of effectiveness as delay, speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. The Transportation Research Board Highway Capacity Manual (HCM) defines six LOS, ranging from A to F, to represent the quality of service from a traveler's perspective. LOS A represents free flow conditions (motorists experience little or no delay and traffic levels are well below roadway capacity) while LOS F represents force-flow conditions (motorists experience very long delays and traffic levels exceed roadway capacity). While LOS C or better is preferred, LOS D may be considered acceptable. All intersections near each of the crossings operate at acceptable LOS D or better when a train event is not occurring. With crossing closure times of at least 9 minutes during an event, vehicle traffic at the crossings would experience long delays consistent with LOS F during a train event.

The HCM methodology has limited application for highway-rail crossing analyses because the occupancy times at the crossings are greater than five minutes, which is beyond the acceptable range for HCM intersection analysis. A manual calculation was instead performed to analyze vehicle delay and queueing during rail events at each of the crossings.

Tables 1-6 through 1-9 summarize the queue analysis at the Avondale Garden Road, George Street, Willswood Lane, and Live Oak Boulevard railroad crossing locations during the AM and PM peak hours for the 2021 Existing and 2048 No-Action conditions, respectively.

Table 1-6: Avondale Garden Road Closure Queue Analysis

	2021 Existing				2048 No-Action			
	AM		PM		AM		PM	
	NB	SB	NB	SB	NB	SB	NB	SB
Crossing Closure Time (seconds)	803				803			
Max queue per lane (vehicles)	12	15	20	20	14	17	23	23
Max queue per lane (feet)	300	375	500	500	350	425	575	575
Total Queue Clearance Time (seconds)	24	33	42	40	27	38	49	46
Total Impact Time (seconds)*	836		845		841		852	
Total Impact Time (minutes)*	13.9		14.1		14.0		14.2	
Average Delay for Approach per vehicle (seconds)	430.1	340.7	310.9	235.8	432.0	342.7	313.3	237.5
Average Delay for Roadway (seconds)	375.2		268.8		377.1		270.8	
Queue extends to River Road (LA 18)	-	Yes	-	Yes	-	Yes	-	Yes

Source: NORG Avondale PEL Study Traffic Engineering Process and Report (TEPR) – Chapter 2: Existing/No-Build Analysis (DOTD, 2024)

Notes: * - highest values at each crossing; NB – Northbound; SB - Southbound

This railroad crossing is 355 feet south of the intersection of LA 18 (River Road) at Avondale Garden Road. The queue analysis indicates that when a train occupies the Avondale Garden Road railroad crossing, the PM Peak Hour vehicle queues on Avondale Garden Road southbound would extend onto River Road (LA 18). However, these queues do not necessarily represent the queues observed in the field. It was noted during field observations that due to the visibility of the blocked crossing from LA 18 (River Road), many drivers elected to take an alternate route.

Exhibits 1-1 and 1-2 illustrate the 2021 Existing and 2048 No-Action queue lengths at the Avondale Garden Road railroad crossing.

Table 1-7: George Street Closure Queue Analysis

	2021 Existing				2048 No-Action			
	AM		PM		AM		PM	
	NB	SB	NB	SB	NB	SB	NB	SB
Crossing Closure Time (seconds)	803				803			
Max queue per lane (vehicles)	17	21	18	30	19	25	20	34
Max queue per lane (feet)	425	525	450	750	475	625	500	850
Total Queue Clearance Time (seconds)	34	43	35	63	39	50	40	72
Total Impact Time (seconds)*	846		866		853		875	
Total Impact Time (minutes)*	14.1		14.4		14.2		14.6	
Average Delay for Approach per vehicle (seconds)	204.3	230.5	203.7	248.2	205.6	232.3	205.0	251.0
Average Delay for Roadway (seconds)	218.2		230.0		219.7		232.2	
Queue extends to River Road (LA 18)	-	Yes	-	Yes	-	Yes	-	Yes

Source: NORG Avondale PEL Study Traffic Engineering Process and Report (TEPR) – Chapter 2: Existing/No-Build Analysis (DOTD, 2024)

Notes: * - highest values at each crossing; NB – Northbound; SB - Southbound

This railroad crossing is 360 feet south of the intersection of LA 18 (River Road) at George Street. The queue analysis indicates that when a train occupies the George Street railroad crossing, the AM Peak Hour, and PM Peak Hour vehicle queues on George Street southbound would extend onto River Road (LA 18). However, these queues may not necessarily represent the queues observed in the field. It was noted during field observations that due to the visibility of the blocked crossing from LA 18 (River Road), many drivers elected to take an alternate route.

The queue analysis also indicates that the in both the AM and PM Peak Hours, the queue for the northbound approach would extend onto Gambino Road due to minimal space for vehicle storage on George Street. These queues may not necessarily represent the queues observed in the field. When a train occupied the crossing, it was noted during field observations that northbound vehicles elected to take alternate routes.

Exhibits 1-3 and 1-4 illustrate the 2021 Existing and 2048 No-Action queue lengths at the George Street railroad crossing.

Table 1-8: Willswood Lane Closure Queue Analysis

	2021 Existing				2048 No-Action			
	AM		PM		AM		PM	
	NB	SB	NB	SB	NB	SB	NB	SB
Crossing Closure Time (seconds)	791				791			
Max queue per lane (vehicles)	13	14	16	21	15	16	18	24
Max queue per lane (feet)	325	350	400	525	375	400	450	600
Total Queue Clearance Time (seconds)	26	29	33	43	30	33	38	50
Total Impact Time (seconds)*	820		834		824		841	
Total Impact Time (minutes)*	13.7		13.9		13.7		14.0	
Average Delay for Approach per vehicle (seconds)	250.6	285.6	226.9	254.7	251.7	287.0	228.2	256.7
Average Delay for Roadway (seconds)	267.6		242.0		268.9		243.7	

Source: NORG Avondale PEL Study Traffic Engineering Process and Report (TEPR) – Chapter 2: Existing/No-Build Analysis (DOTD, 2024)

Notes: * - highest values at each crossing; NB – Northbound; SB - Southbound

The queue analysis indicates that when a train occupies the Willswood Lane railroad crossing, the vehicle queues northbound and southbound extend up to 450 and 600 feet, respectively.

Exhibits 1-5 and 1-6 illustrate the 2021 Existing and 2048 No-Action queue lengths at the Willswood Lane railroad crossing.

Table 1-9: Live Oak Boulevard Closure Queue Analysis

	2021 Existing				2048 No-Action			
	AM		PM		AM		PM	
	NB	SB	NB	SB	NB	SB	NB	SB
Crossing Closure Time (seconds)	540				540			
Max queue per lane (vehicles)	23	30	36	14	27	34	41	16
Max queue per lane (feet)	575	750	900	350	675	850	1025	400
Total Queue Clearance Time (seconds)	50	66	79	30	58	77	92	34
Total Impact Time (seconds)*	606		619		617		632	
Total Impact Time (minutes)*	10.1		10.3		10.3		10.5	
Average Delay for Approach per vehicle (seconds)	57.6	57.2	59.5	52.3	58.4	58.3	60.8	52.7
Average Delay for Roadway (seconds)	57.4		57.4		58.3		58.4	

Source: NORG Avondale PEL Study Traffic Engineering Process and Report (TEPR) – Chapter 2: Existing/No-Build Analysis (DOTD, 2024)

Notes: * - highest values at each crossing; NB – Northbound; SB - Southbound

The queue analysis indicates that when a train occupies the Live Oak Boulevard railroad crossing, the vehicle queues northbound and southbound extend up to 1,025 and 850 feet, respectively.

Exhibits 1-7 and 1-8 illustrate the 2021 Existing and 2048 No-Action queue lengths at the Live Oak Boulevard railroad crossing.

1.2.3 Improve Multimodal Connectivity

The Avondale Intermodal Terminal and Avondale Container Yard truck traffic can only access the roadway network via Avondale Garden Road. Avondale Garden Road and Gambino Road are both posted “No Truck Route” with a 5 Ton weight limit. Trucks entering/exiting the Terminal and Yard will experience train occupancy delays at the Avondale Garden Road crossing. Truck access between River Road (LA 18) and US 90 is either to the west at Willswood Lane, or to the east at the intersection of River Road and US 90 in Bridge City.

1.2.4 Support Economic Development

Train crossings contribute to long delays at the existing highway-rail grade crossings and increase congestion on neighboring intersections and streets. The 2021 Existing and 2048 No-Action daily vehicle delay at Avondale Garden Road, George Street, Willswood Lane and Live Oak Boulevard are shown in Table 1-10 through Table 1-13, respectively. Drivers can sometimes avoid the long queues and delays during train events at Avondale Garden Road, George Street, and Willswood Lane by diverting from their intended trip path given the roadway network. However, drivers at the Live Oak Boulevard railroad crossing are unable to divert during a train event given a lack of sight distance relative to other roadway options. The additional fuel consumed and longer travel times due to these rail crossing delays are borne by local businesses and residents and adversely influences area development and economic growth.

Table 1-10: Avondale Garden Road Vehicle Delay

	Avondale Garden Road Crossing									
	2021 Existing					2048 No Build				
	Peak Hours				Other 22 Hours	Peak Hours				Other 22 Hours
	AM Peak Hour		PM Peak Hour		NB &SB	AM Peak Hour		PM Peak Hour		22 Hours
	NB	SB	NB	SB		NB	SB	NB	SB	NB &SB
Average Vehicle Delay Per Vehicle (seconds)	430.1	340.7	310.9	235.8	--	432.0	342.7	313.3	237.5	--
Number of Vehicles	20	35	54	69	1070	23	40	62	79	1220
Total Trains Per Day	--	--	--	--	44	--	--	--	--	57
Trains Per AM Peak Hour + PM Peak Hour	--	--	--	--	4	--	--	--	--	4
Estimated Trains Per 22-Hour Period	--	--	--	--	40	--	--	--	--	53
Train Event Time (per event, minutes:seconds)	--	--	--	--	13:23	--	--	--	--	16:48
Train Event Time (per event, seconds)	--	--	--	--	803.0	--	--	--	--	1008
Percentage of daily train event in 22-Hour period	--	--	--	--	41%	--	--	--	--	67%
22-Hour Number of Vehicles	--	--	--	--	892	--	--	--	--	1016
Number of Vehicles Impacted by Train Event During 22 Hours	--	--	--	--	362	--	--	--	--	685
Average Vehicle Delay Per Vehicle (seconds)	--	--	--	--	329.4	--	--	--	--	331.4
Total Delay (seconds)	8602	11924.5	16788.6	16270.2	119153.2	9936	13708	19424.6	18762.5	227103.9
Total Delay (hours, by time period)	2.39	3.31	4.66	4.52	33.10	2.76	3.81	5.40	5.21	63.08
Total Delay (hours)	**47.98**					**80.26**				

Source: Michael Baker International, Inc.
Notes: NB – Northbound; SB - Southbound

Table 1-11: George Street Vehicle Delay

	George Street Crossing									
	2021 Existing					2048 No Build				
	Peak Hours				Other 22 Hours	Peak Hours				Other 22 Hours
	AM Peak Hour		PM Peak Hour		NB &SB	AM Peak Hour		PM Peak Hour		22 Hours
	NB	SB	NB	SB		NB	SB	NB	SB	NB &SB
Average Vehicle Delay Per Vehicle (seconds)	204.3	230.5	203.7	248.2	--	205.6	232.3	205.0	251.0	--
Number of Vehicles	68	77	71	103	1910	78	88	81	118	2190
Total Trains Per Day	--	--	--	--	32	--	--	--	--	42
Trains Per AM Peak Hour + PM Peak Hour	--	--	--	--	4	--	--	--	--	4
Estimated Trains Per 22-Hour Period	--	--	--	--	28	--	--	--	--	38
Train Event Time (per event, minutes:seconds)	--	--	--	--	13:23	--	--	--	--	16:48
Train Event Time (per event, seconds)	--	--	--	--	803	--	--	--	--	1008
Percentage of daily train event in 22-Hour period	--	--	--	--	28%	--	--	--	--	48%
22-Hour Number of Vehicles	--	--	--	--	1591	--	--	--	--	1825
Number of Vehicles Impacted by Train Event During 22 Hours	--	--	--	--	452	--	--	--	--	883
Average Vehicle Delay Per Vehicle (seconds)	--	--	--	--	221.7	--	--	--	--	223.5
Total Delay (seconds)	13892.4	17748.5	14462.7	25564.6	100123.3	16036.8	20442.4	16605	29618	197247.2
Total Delay (hours, by time period)	3.86	4.93	4.02	7.10	27.81	4.45	5.68	4.61	8.23	54.79
Total Delay (hours)	**47.72**					**77.76**				

Source: Michael Baker International, Inc.
Notes: NB – Northbound; SB - Southbound

Table 1-12: Willswood Lane Vehicle Delay

	Willswood Lane Crossing									
	2021 Existing					2048 No Build				
	Peak Hours				Other 22 Hours	Peak Hours				Other 22 Hours
	AM Peak Hour		PM Peak Hour		NB &SB	AM Peak Hour		PM Peak Hour		22 Hours
	NB	SB	NB	SB		NB	SB	NB	SB	NB &SB
Average Vehicle Delay Per Vehicle (seconds)	250.6	285.6	226.9	254.7	--	251.7	287.0	228.2	256.7	--
Number of Vehicles	41	34	58	69	1210	47	39	66	79	1380
Total Trains Per Day	--	--	--	--	31	--	--	--	--	41
Trains Per AM Peak Hour + PM Peak Hour	--	--	--	--	4	--	--	--	--	4
Estimated Trains Per 22-Hour Period	--	--	--	--	27	--	--	--	--	37
Train Event Time (per event, minutes:seconds)	--	--	--	--	13:11	--	--	--	--	16:36
Train Event Time (per event, seconds)	--	--	--	--	791	--	--	--	--	996
Percentage of daily train event in 22-Hour period	--	--	--	--	27%	--	--	--	--	47%
22-Hour Number of Vehicles	--	--	--	--	1008	--	--	--	--	1149
Number of Vehicles Impacted by Train Event During 22 Hours	--	--	--	--	272	--	--	--	--	535
Average Vehicle Delay Per Vehicle (seconds)	--	--	--	--	254.5	--	--	--	--	255.9
Total Delay (seconds)	10274.6	9710.4	13160.2	17574.3	69163.7	11829.9	11193	15061.2	20279.3	136812.6
Total Delay (hours, by time period)	2.85	2.70	3.66	4.88	19.21	3.29	3.11	4.18	5.63	38.00
Total Delay (hours)	**33.30**					**54.22**				

Source: Michael Baker International, Inc.
Notes: NB – Northbound; SB - Southbound

Table 1-13: Live Oak Boulevard Vehicle Delay

	Live Oak Boulevard Crossing									
	2021 Existing					2048 No Build				
	Peak Hours				Other 22 Hours	Peak Hours				Other 22 Hours
	AM Peak Hour		PM Peak Hour		NB &SB	AM Peak Hour		PM Peak Hour		22 Hours
	NB	SB	NB	SB		NB	SB	NB	SB	NB &SB
Average Vehicle Delay Per Vehicle (seconds)	57.6	57.2	59.5	52.3	--	58.4	58.3	60.8	52.7	--
Number of Vehicles	112	198	176	117	3610	128	227	201	133	4130
Total Trains Per Day	--	--	--	--	14	--	--	--	--	18
Trains Per AM Peak Hour + PM Peak Hour	--	--	--	--	2	--	--	--	--	2
Estimated Trains Per 22-Hour Period	--	--	--	--	12	--	--	--	--	16
Train Event Time (per event, minutes:seconds)	--	--	--	--	9:00	--	--	--	--	12:25
Train Event Time (per event, seconds)	--	--	--	--	540.0	--	--	--	--	745.0
Percentage of daily train event in 22-Hour period	--	--	--	--	8%	--	--	--	--	15%
22-Hour Number of Vehicles	--	--	--	--	3007	--	--	--	--	3441
Number of Vehicles Impacted by Train Event During 22 Hours	--	--	--	--	246	--	--	--	--	518
Average Vehicle Delay Per Vehicle (seconds)	--	--	--	--	56.7	--	--	--	--	57.6
Total Delay (seconds)	6451.2	11325.6	10472	6119.1	13937.4	7475.2	13234.1	12220.8	7009.1	29804.4
Total Delay (hours, by time period)	1.79	3.15	2.91	1.70	3.87	2.08	3.68	3.39	1.95	8.28
Total Delay (hours)	**13.42**					**19.37**				

Source: Michael Baker International, Inc.
Notes: NB – Northbound; SB - Southbound

Jefferson Parish's Envision Jefferson 2040 Comprehensive Plan (JP, 2040) states that Jefferson Parish has the most employment opportunities in the Region. In 2019, the Jefferson Parish Council approved the Avondale Industrial Marine (AIM) zoning overlay district for the 254-acre site of the former Avondale Shipyards, northeast of the Study Area. The new zoning district promotes the privately-owned site as a global, multi-modal, value-added logistics hub, connecting port commerce with the onshore manufacturing, fabrication, and distribution facilities.

Envision 2040 also states that redevelopment of the former Avondale Shipyard site helped to inspire the Port of New Orleans (Port NOLA) to expand its planning efforts beyond port-owned properties to other sites within its jurisdiction, and to broaden its thinking about freight-based possibilities. It also positions Jefferson Parish for economic growth and active participation in Port NOLA's mission to "drive regional economic prosperity by maximizing the flow of international trade and commerce."

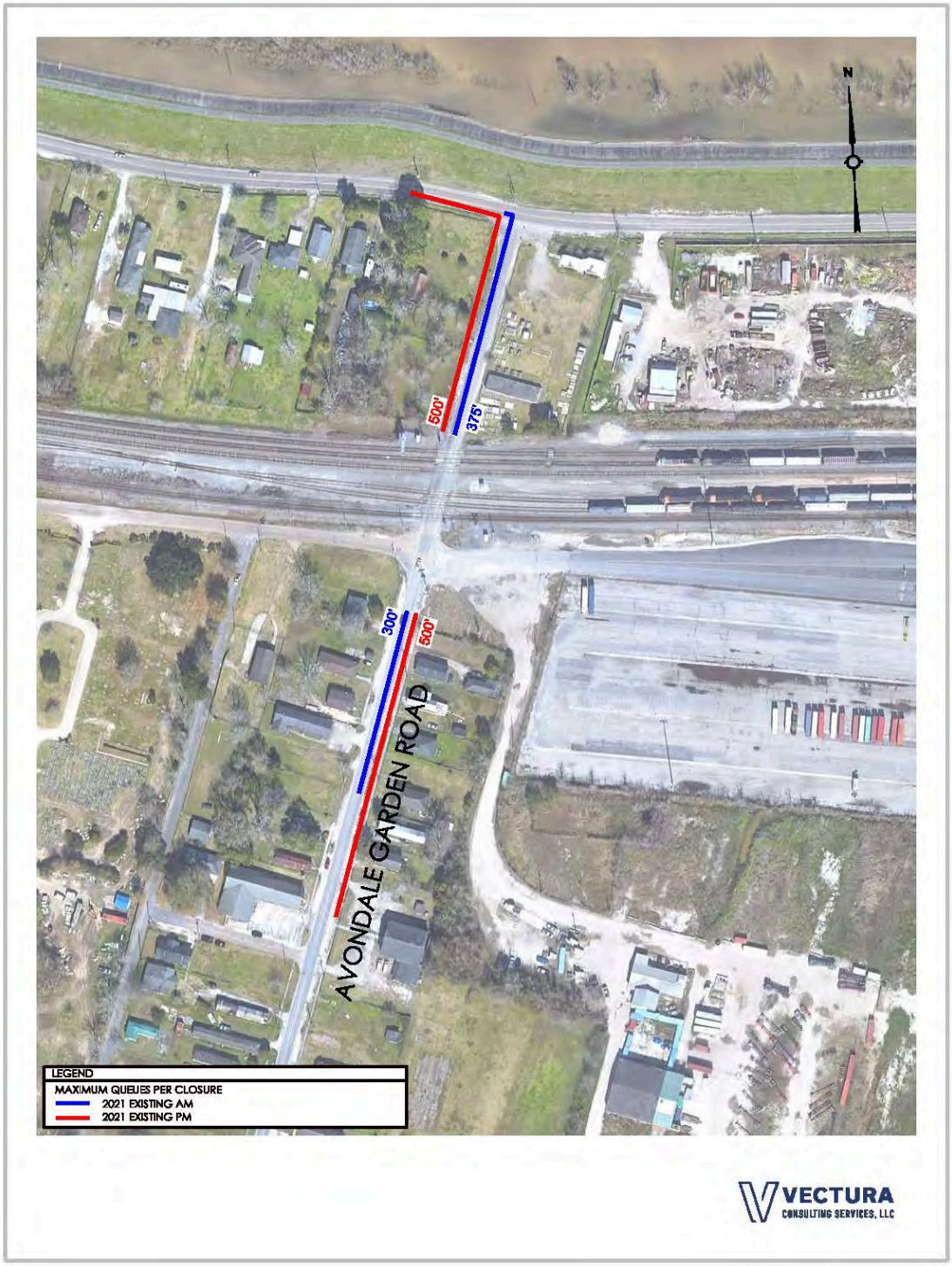
A Westbank Transportation Road & Rail Subarea Analysis Stage 0 Feasibility Study (RPC, 2022) evaluated the relative feasibility of a series of improvements to improve road and rail access in the Avondale-Nine Mile Point-Westwego area. The study area is to the east of and overlaps a portion of the Avondale PEL Study. The purpose of this Stage 0 Study was to analyze proposed and forecast industrial development in support of a larger planning effort that includes the evaluation of multi-modal transportation, land use, utilities, and other infrastructure, and to identify strategic transportation investments that will complement and enhance planned area development.

Jefferson Parish is also extending Latigue Road to Live Oak Boulevard to accommodate large trucks accessing area businesses, primarily Metals USA. The Latigue Road extension and Foundry Road will become designated truck routes and the truck route designation will be removed from the residential streets of Latigue Road and Modern Farms Road.

1.2.5 Improve/Encourage a Shared-Use Environment

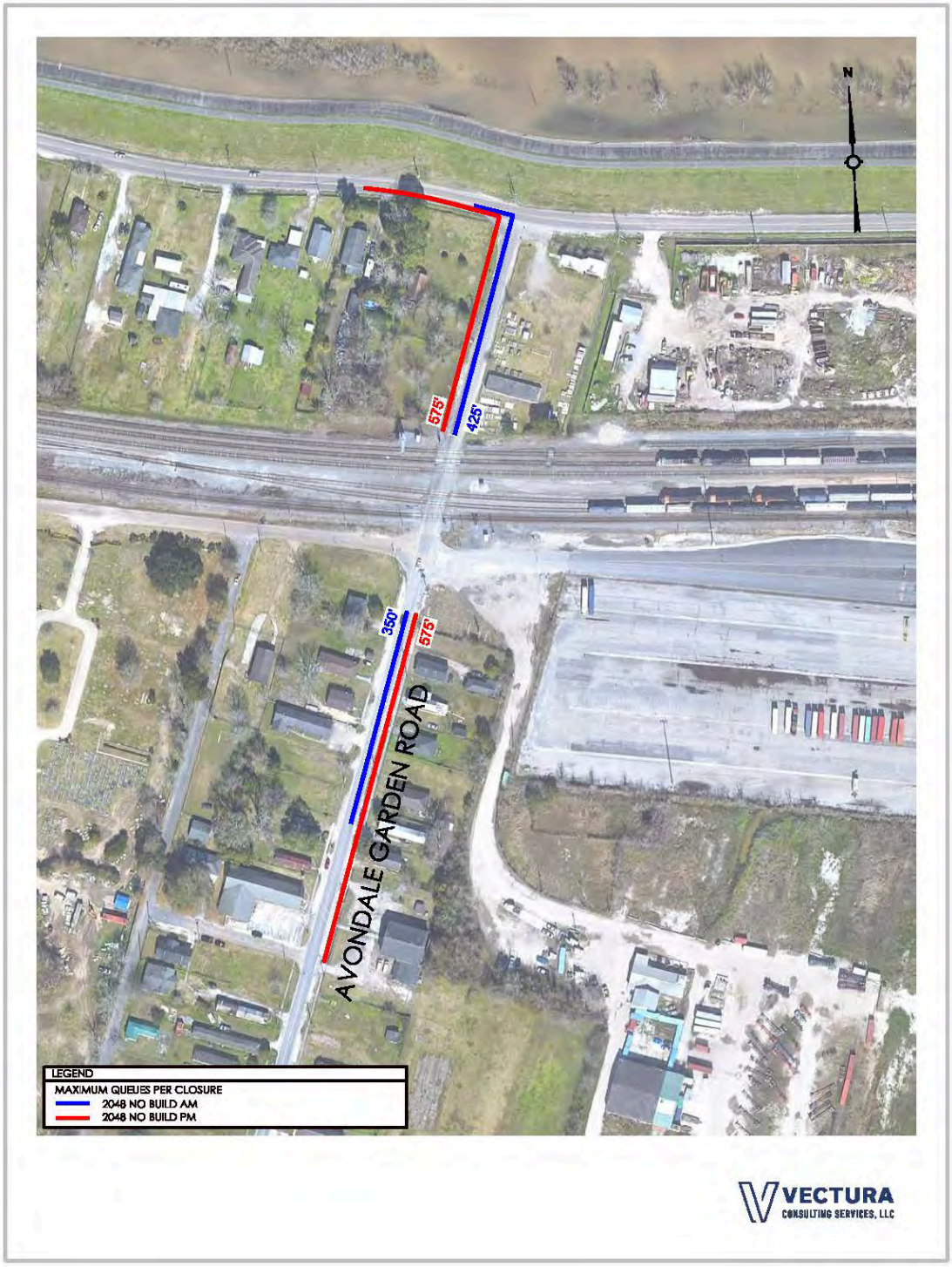
The Jefferson Parish Bicycle Master Plan (JP, 2013) establishes the overarching vision of a "bicycle friendly" Jefferson Parish. The League of American Bicyclists defines a “bicycle friendly” community as "welcomes cyclists by providing safe accommodation for cycling and encouraging people to bike for transportation and recreation". Research has demonstrated that communities with high rates of cycling for recreation or transportation tend to be healthier, safer, more prosperous, and more environmentally sound. The Bicycle Master Plan identifies a paved shoulder along Live Oak Boulevard and Willswood Lane, and a bicycle boulevard within the Kennedy Heights neighborhood between US 90 and across George Street to River Road (LA 18) through the Study Area (see Exhibit 1-9) as part of the recommended bicycle network. The Parish indicated that alternatives developed should accommodate bicycle access to the Mississippi River Bike Path.

Exhibit 1-1: 2021 Existing Maximum Queues
Avondale Garden Road Railroad Crossing



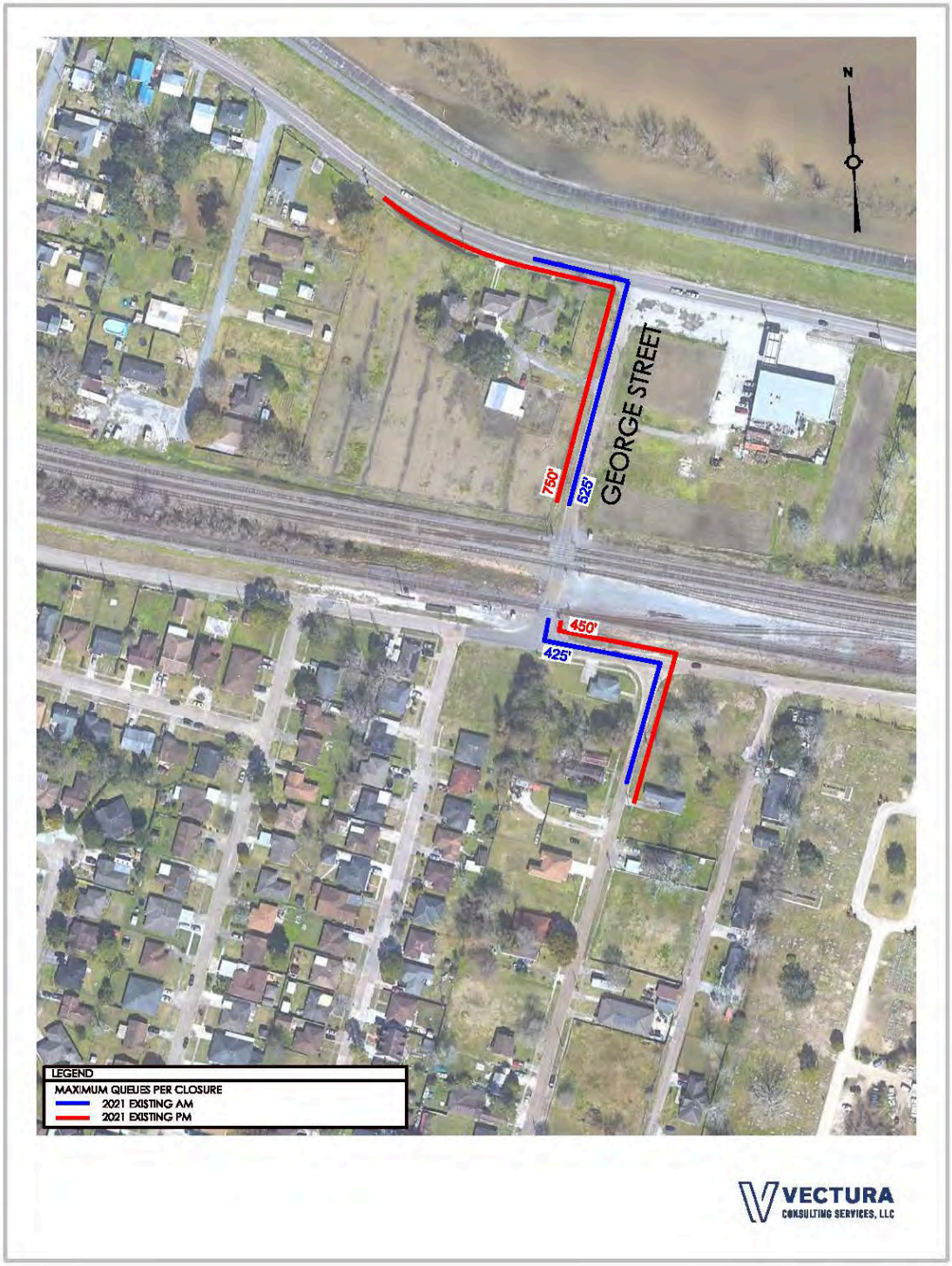
Source: NORG Avondale PEL Study Traffic Engineering Process and Report (TEPR) – Chapter 2: Existing/No-Build Analysis (DOTD, 2024)

Exhibit 1-2: 2048 No-Action Maximum Queues
Avondale Garden Road Railroad Crossing



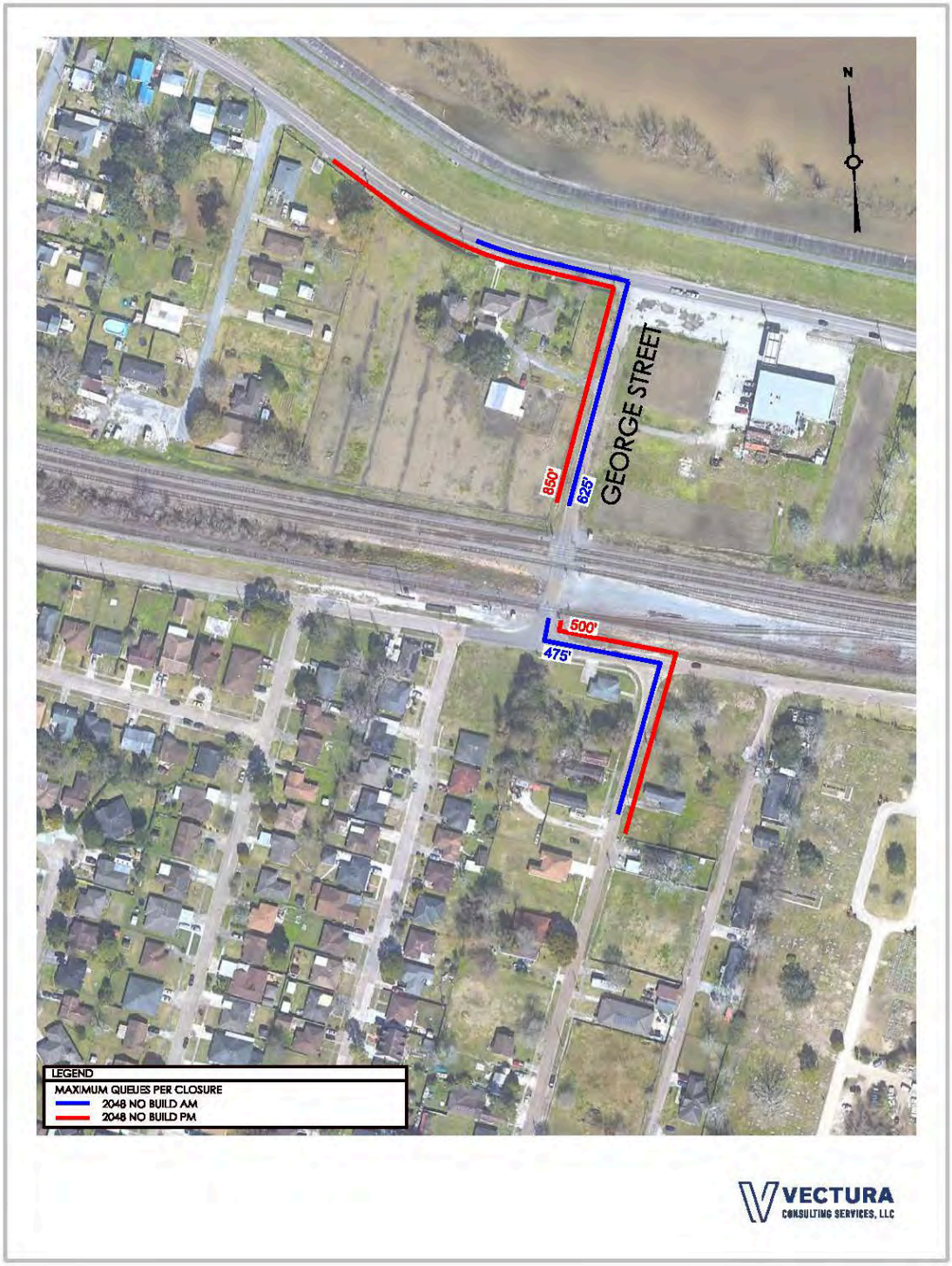
Source: NORG Avondale PEL Study Traffic Engineering Process and Report (TEPR) – Chapter 2: Existing/No-Build Analysis (DOTD, 2024)

Exhibit 1-3: 2021 Existing Maximum Queues
George Street Railroad Crossing



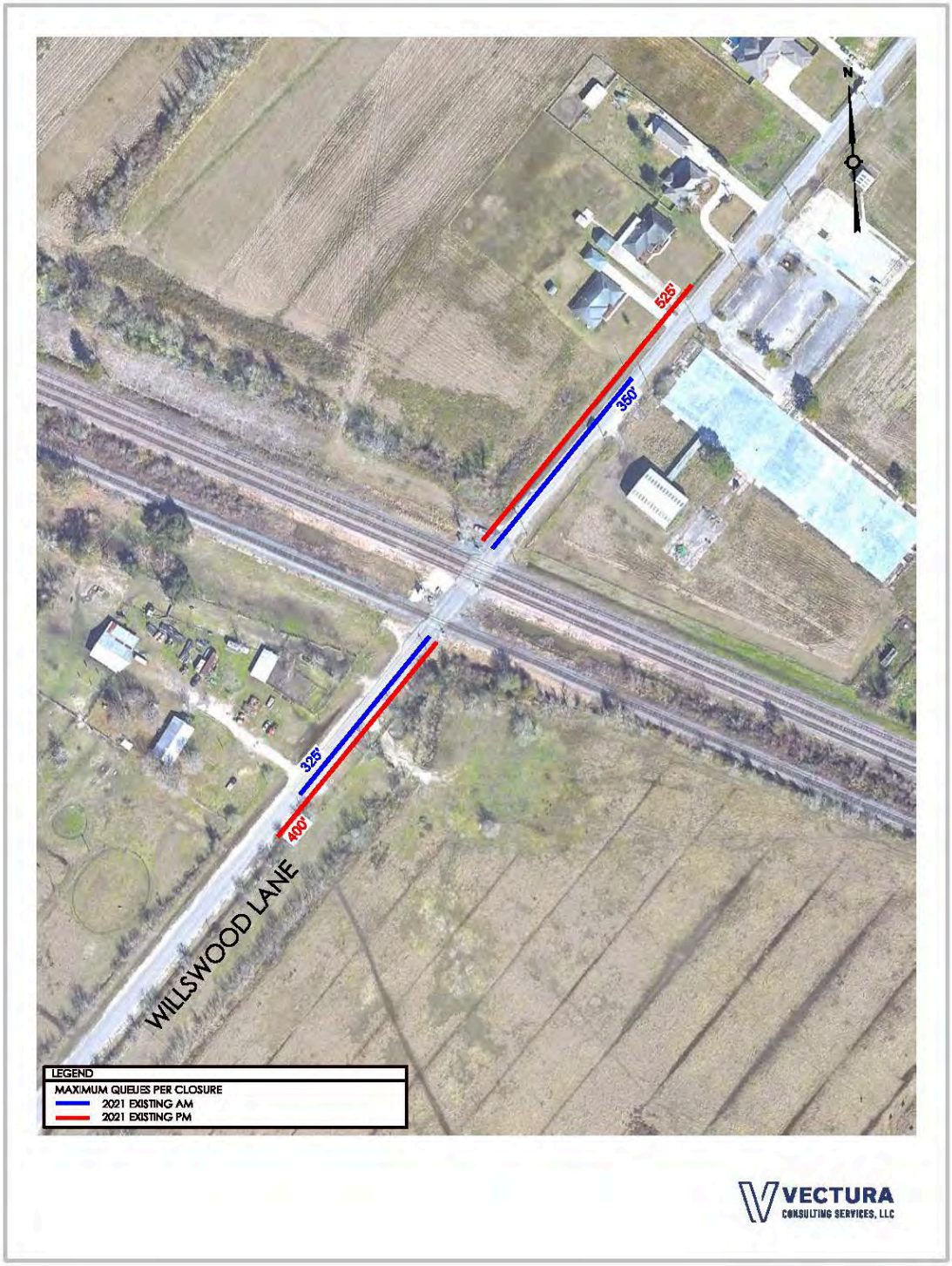
Source: NORG Avondale PEL Study Traffic Engineering Process and Report (TEPR) – Chapter 2: Existing/No-Build Analysis (DOTD, 2024)

Exhibit 1-4: 2048 No-Action Maximum Queues
George Street Railroad Crossing



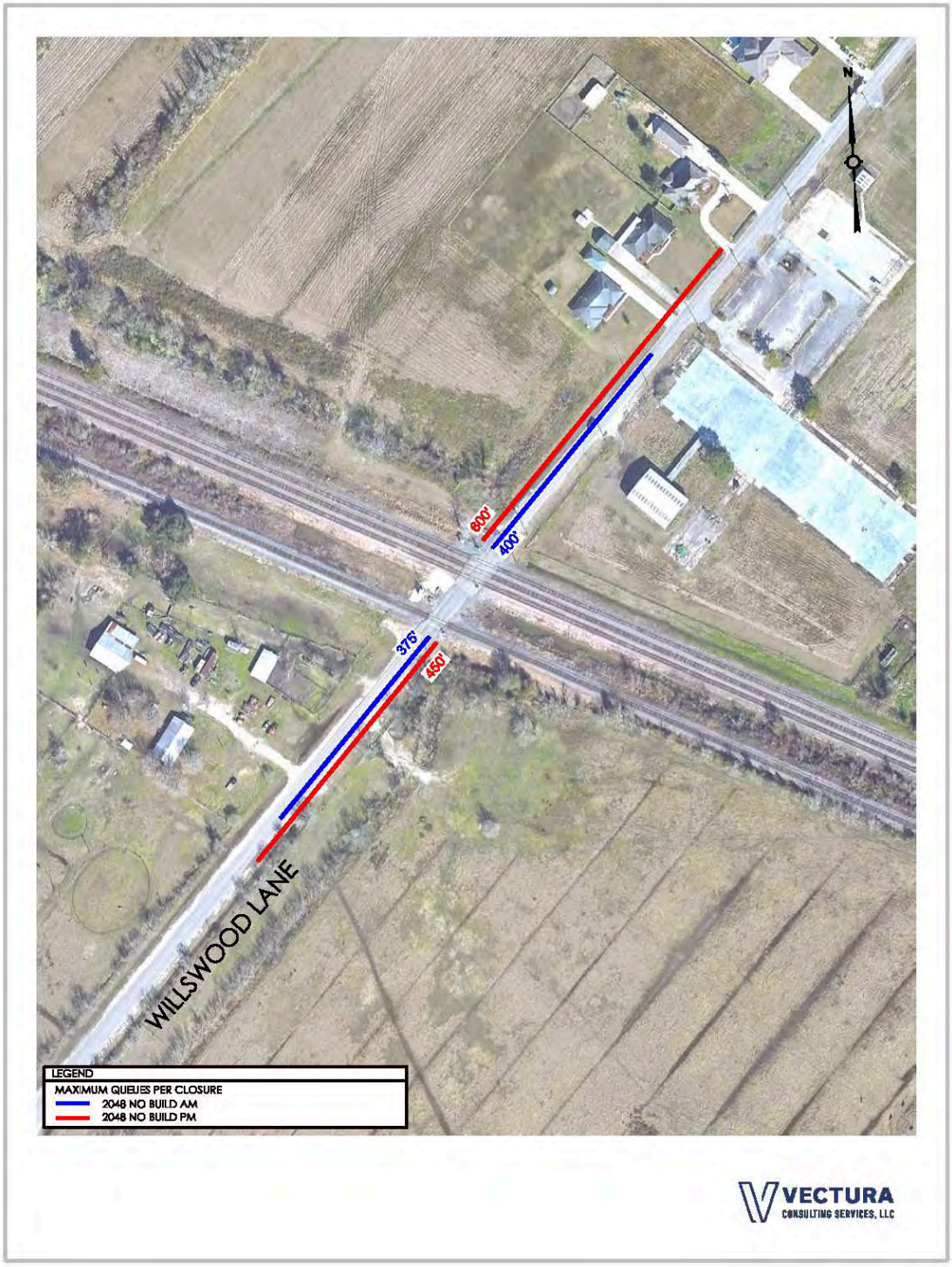
Source: NORG Avondale PEL Study Traffic Engineering Process and Report (TEPR) – Chapter 2: Existing/No-Build Analysis (DOTD, 2024)

Exhibit 1-5: 2021 Existing Maximum Queues
Willswood Lane Railroad Crossing



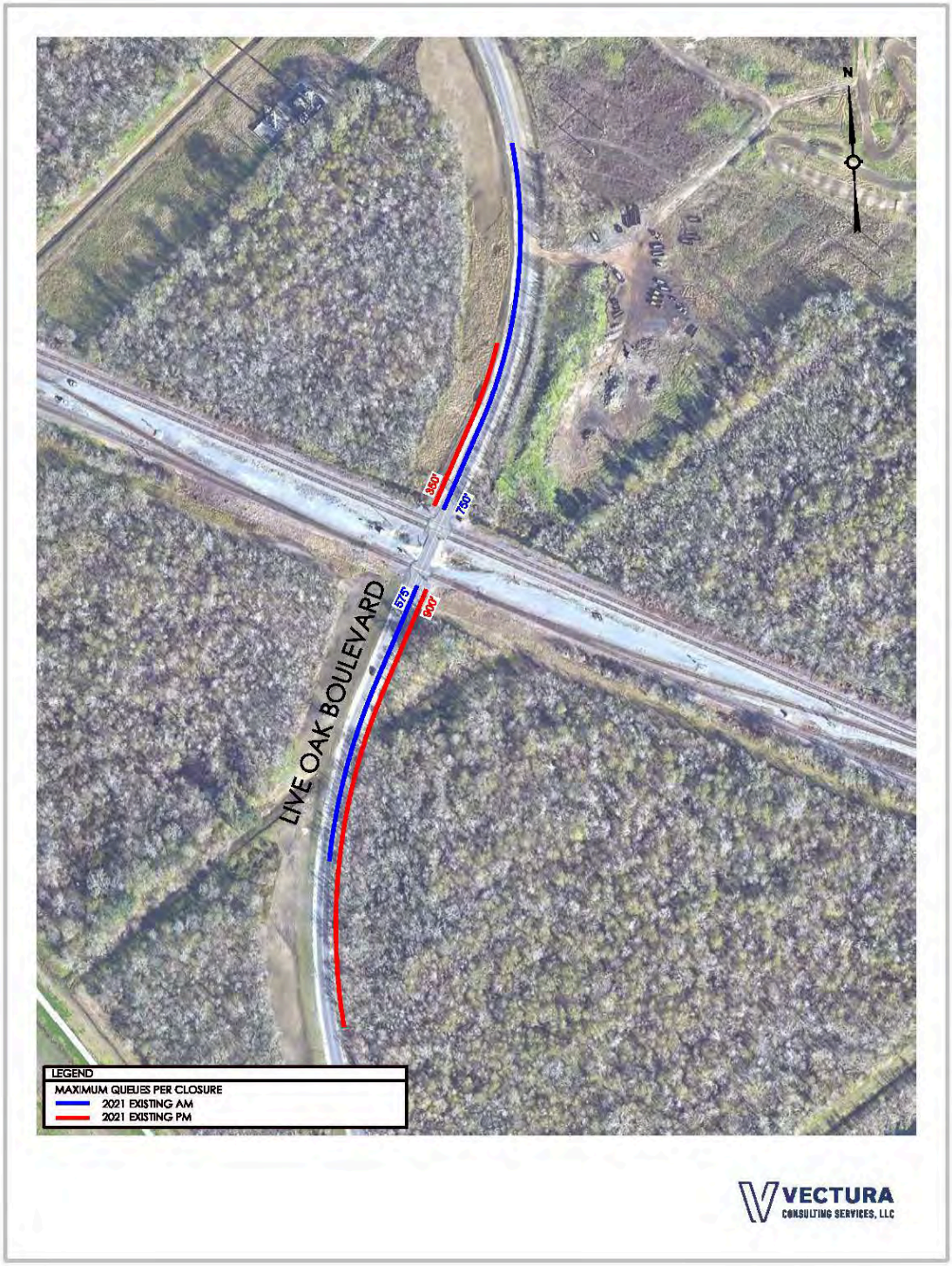
Source: NORG Avondale PEL Study Traffic Engineering Process and Report (TEPR) – Chapter 2: Existing/No-Build Analysis (DOTD, 2024)

Exhibit 1-6: 2048 No-Action Maximum Queues
Willswood Lane Railroad Crossing



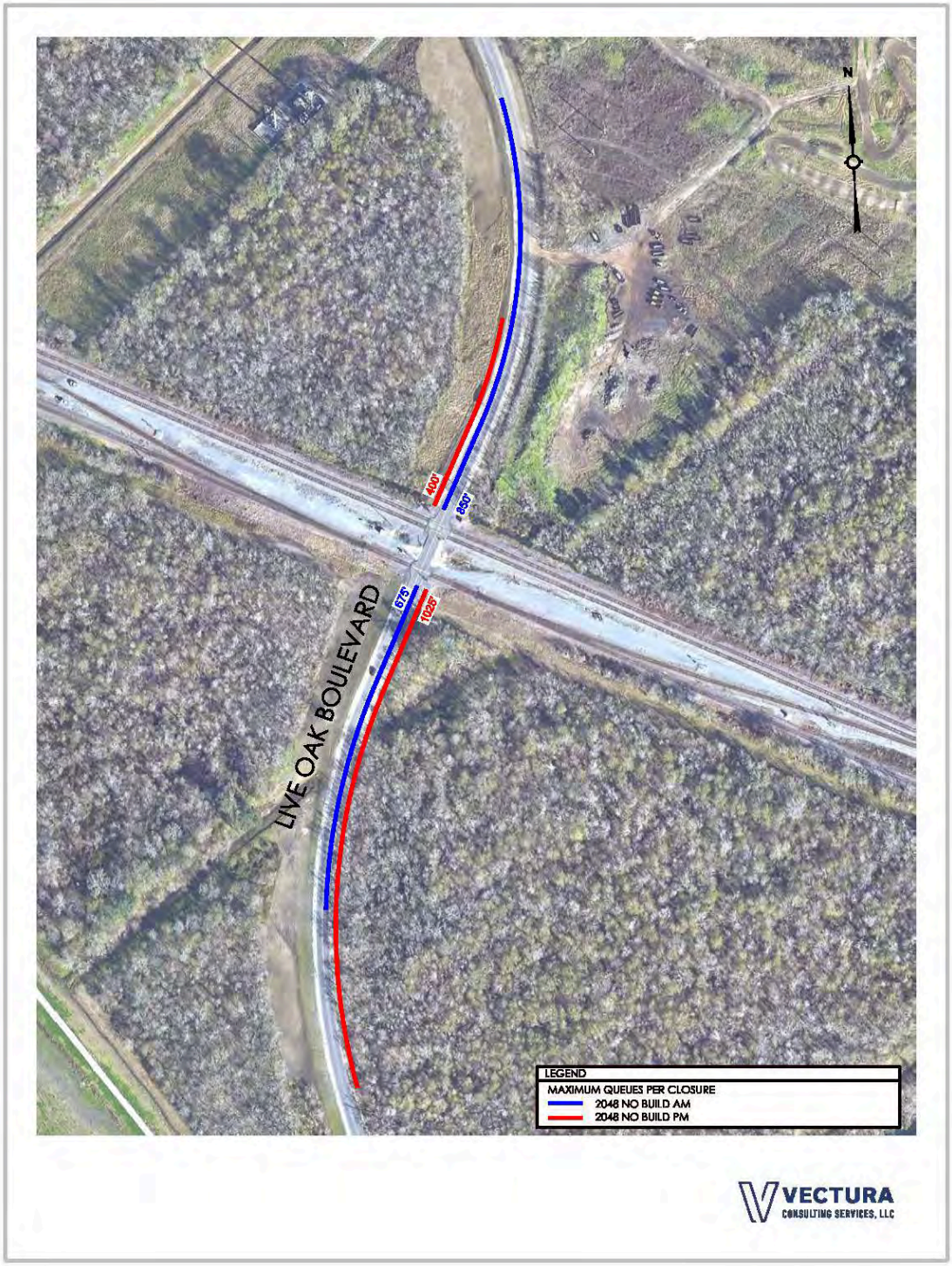
Source: NORG Avondale PEL Study Traffic Engineering Process and Report (TEPR) – Chapter 2: Existing/No-Build Analysis (DOTD, 2024)

Exhibit 1-7: 2021 Existing Maximum Queues
Live Oak Boulevard Railroad Crossing



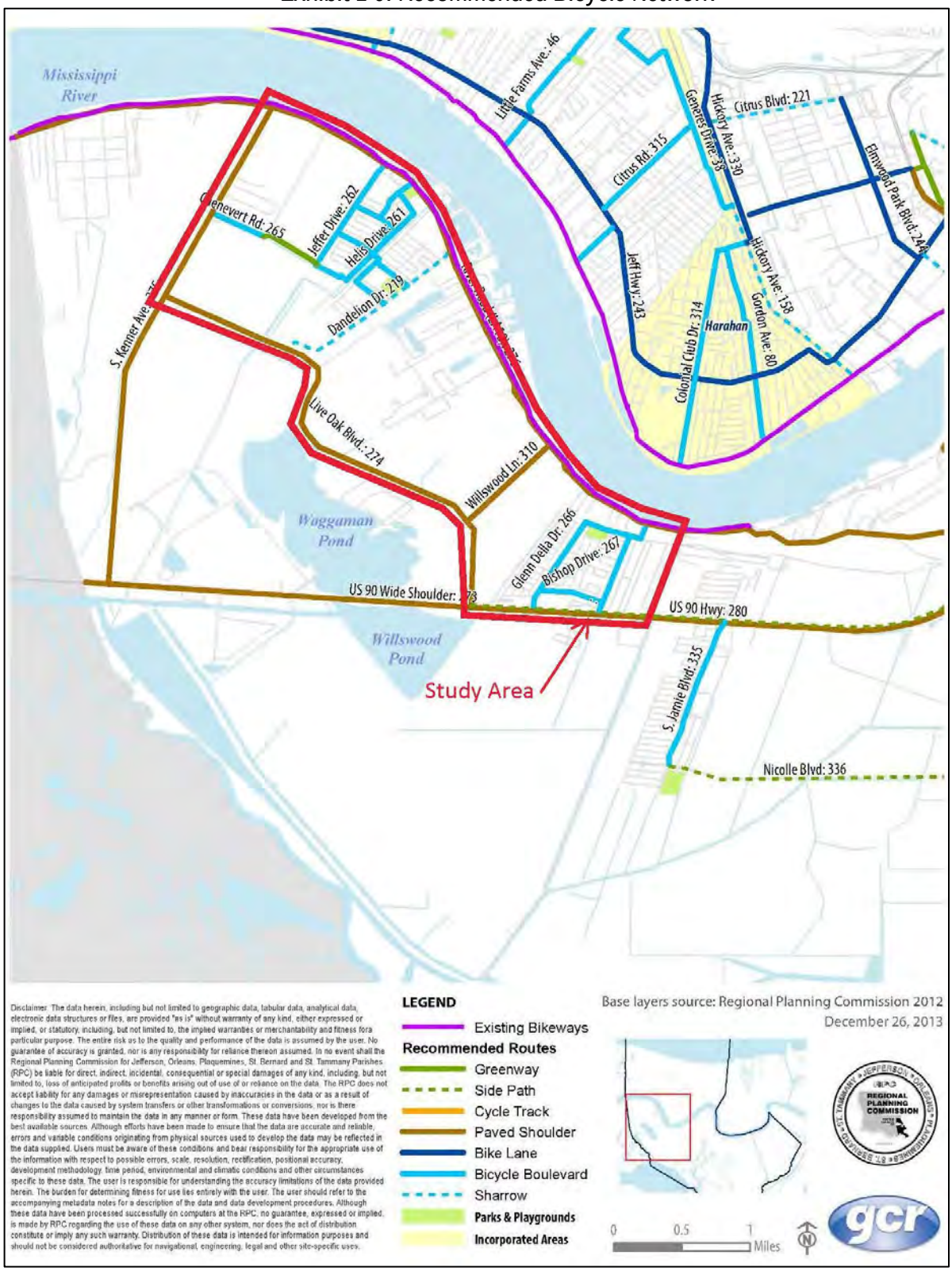
Source: NORG Avondale PEL Study Traffic Engineering Process and Report (TEPR) – Chapter 2: Existing/No-Build Analysis (DOTD, 2024)

Exhibit 1-8: 2048 No-Action Maximum Queues
Live Oak Boulevard Railroad Crossing



Source: NORG Avondale PEL Study Traffic Engineering Process and Report (TEPR) – Chapter 2: Existing/No-Build Analysis (DOTD, 2024)

Exhibit 1-9: Recommended Bicycle Network



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Source: Jefferson Parish Bicycle Master Plan (Final Draft) (JP, 2013)

2. ALTERNATIVES

This Section reviews the alternatives development process and describes both the No Action Alternative and the potential Build Alternatives. Four alternatives were considered; the No Action Alternative; and three Build Alternatives.

The 2007 NORG Infrastructure Feasibility Analysis (RPC, 2007) recommended closing the George Street highway-rail crossing (USDOT Crossing Inventory #s 757992Y and 797889V) and road-over-rail grade separating the Avondale Garden Road (USDOT Crossing Inventory # 797887G), Willswood Lane (USDOT Crossing Inventory #s 757993F and 797891W), and Live Oak Boulevard (USDOT Crossing Inventory #s 912100Y and 443702U) crossings. These four roadways are owned and maintained by Jefferson Parish.

2.1 FHWA Grade Separation Warrant Analysis

The USDOT Highway-Rail Crossing Handbook, 3rd Edition (*Handbook*) Technical Working Group (TWG) guidance indicates that grade separating highway-rail crossings should be considered whenever one or more of thirteen listed conditions exist.

The guidance also states that highway-rail crossings should be considered for closure when acceptable alternate access across the rail line exists within one mile measured along the track or the median trip length normally made over the subject crossing would not increase by more than 2.5 miles.

The approximate distance measured along the track between the public highway-rail crossings is as follows:

- Avondale Garden Road and George Street ~ 0.22 miles
- George Street and Willswood Lane ~ 0.95 miles
- Avondale Garden Road and Willswood Lane ~ 1.17 miles
- Willswood Lane and Live Oak Boulevard ~ 1.40 miles
- Live Oak Boulevard and Davis Drive (St. Charles Parish) ~ 6.33 miles

The four highway-rail crossings were evaluated against the thirteen conditions listed in the Handbook (see Table 2-1). The crossings at Avondale Garden Road, George Street, and Willswood Lane all exceed the average of 30 or more trains per day (tpd) and experience vehicle delays exceeding 30 vehicle hours per day (vhpd) under both the 2021 Existing and 2048 No-Action Horizon conditions. The distance measured along the track between these three crossings meets the criteria for considering consolidation or closure.

The Live Oak Boulevard crossing does not exceed any of the thirteen TWG guidance criteria and the distance measured along the track to the adjacent crossings also exceeds the distance criteria for considering consolidation or closure. As a result, Live Oak Boulevard was eliminated from further consolidation or grade separation consideration and remains unchanged.

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Table 2-1: Grade Separation Warrant Analysis

Warrant Condition	Avondale Garden Road Applicability	George Street Applicability	Willswood Lane Applicability	Live Oak Boulevard Applicability
The posted highway speed equals or exceeds 55 mph	No (posted speed is 20 mph)	No (posted speed is 20 mph)	No (posted speed is 40 mph)	No (posted speed is 40 mph)
AADT exceeds 30,000 in urban areas or 20,000 in rural areas	No (The Project is in an urban area. AADT is 1,070 Existing, 1,220 Horizon)	No (The Project is in an urban area. AADT is 1,910 Existing, 2,190 Horizon)	No (The Project is in an urban area. AADT is 1,210 Existing, 1,380 Horizon)	No (The Project is in an urban area. AADT is 3,610 Existing, 4,130 Horizon)
Maximum authorized train speed exceeds 79 mph	No (authorized speed does not exceed 79 mph)	No (authorized speed does not exceed 79 mph)	No (authorized speed does not exceed 79 mph)	No (authorized speed does not exceed 79 mph)
An average of 30 or more trains per day	Yes (Rail Operations Analysis indicates 44 Existing, 57 Horizon)	Yes (Rail Operations Analysis indicates 32 Existing, 42 Horizon)	Yes (Rail Operations Analysis indicates 31 Existing, 41 Horizon)	No Rail Operations Analysis indicates 14 Existing, 18 Horizon)
An average of 75 or more passenger trains per day in urban areas or 30 or more passenger trains per day in rural areas	N/A (no passenger rail service)	N/A (no passenger rail service)	N/A (no passenger rail service)	N/A (no passenger rail service)
An average of 150 or more transit trains per day in urban areas or 60 or more passenger trains per day in rural areas	N/A (no transit service)	N/A (no transit service)	N/A (no transit service)	N/A (no transit service)
Freight Train Crossing Exposure (the product of the number of trains per day and AADT) exceeds 900,000 in urban areas or 600,000 in rural areas	No (less than 900,000 for crossings both individually & combined under both existing and horizon year forecasts)	No (less than 900,000 for crossings both individually and combined under both existing and horizon year forecasts)	No (less than 900,000 for crossings both individually and combined under both existing and horizon year forecasts)	No (less than 900,000 for crossings both individually and combined under both existing and horizon year forecasts)
Passenger Train Crossing Exposure (the product of the number of passenger trains per day and AADT) exceeds 2,250,000 in urban areas or 600,000 in rural areas	N/A (no passenger rail service)	N/A (no passenger rail service)	N/A (no passenger rail service)	N/A (no passenger rail service)
Transit Train Crossing Exposure (the product of the number of transit trains per day and AADT) exceeds 4,500,000 in urban areas or 1,200,000 in rural areas	N/A (no transit service)	N/A (no transit service)	N/A (no transit service)	N/A (no transit service)
The expected accident frequency for active devices with gates, as calculated by the USDOT Accident Prediction Formula including five-year accident history, exceeds 0.5 (per year). If the highway is a part of the designated National Highway System, the expected accident frequency for active devices with gates, as calculated by the USDOT Accident Prediction Formula including five-year accident history, exceeds 0.2 (per year)	No (0.029025 @ UPRR Crossing – see FRA WBAPS Report (see Appendix B)	No (0.018498 @ UPRR Crossing; 0.018570 @ BNSF Crossing – see FRA WBAPS Report (see Appendix B)	No (0.015793 @ UPRR Crossing; 0.013951 @ BNSF Crossing – see FRA WBAPS Report (see Appendix B)	No (0.013571 and 0.027829 @ UPRR Crossings – see FRA WBAPS Report (see Appendix B)
Vehicle delay exceeds 30 vehicle hours per day (vhpd) with consideration for cost effectiveness	Yes (Traffic Engineering Analysis indicates 47.98 vhpd Existing, 80.26 vhpd No-Action Horizon)	Yes (Traffic Engineering Analysis indicates 47.72 vhpd Existing, 77.76 vhpd No-Action Horizon)	Yes (Traffic Engineering Analysis indicates 33.30 vhpd Existing, 54.22 vhpd No-Action Horizon)	No (Traffic Engineering Analysis indicates 13.42 vhpd Existing, 19.37 vhpd No-Action Horizon)
Whenever a new grade separation is constructed, whether or not it replaces an existing highway-rail crossing, consideration should be given to the possibility of closing one or more adjacent crossings. In addition, the railroad should be consulted prior to starting design to determine the railroad's future clear span requirements for the tracks crossed	Noted	Noted	Noted	Noted
Utilize Table 7 for LRT grade separations	N/A (no LRT service)	N/A (no LRT service)	N/A (no LRT service)	N/A (no LRT service)

N/A – Not Applicable

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2.2 No Action Alternative

The No Action Alternative would not involve consolidating or grade separating any of the four highway-rail crossings. Normal maintenance activities and planned safety improvements would continue.

DOTD is completing improvements to the US 90 intersection with Avondale Garden Road and is conducting a Stage 0 study to make intersection improvements to accommodate pedestrian crossing (ADA, Pedestrian heads, etc.). The study is in its early stages.

Jefferson Parish is extending Latigue Road to Live Oak Boulevard to accommodate large trucks accessing area businesses, primarily Metals USA. The Latigue Road extension and Foundry Road will become designated truck routes and the truck route designation will be removed from the residential streets of Latigue Road and Modern Farms Road.

The Westbank Transportation Road & Rail Subarea Analysis Stage 0 Feasibility Study (RPC, 2022) evaluated the relative feasibility of a series of improvements to improve road and rail access in the Avondale-Nine Mile Point-Westwego area. The study area is to the east of and overlaps a portion of the Avondale PEL Study Area. The purpose of the Westbank Stage 0 Study was to analyze proposed and forecast industrial development in support of a larger planning effort that includes the evaluation of multi-modal transportation, land use, utilities, and other infrastructure, and to identify strategic transportation investments that will complement and enhance planned area development.

2.3 Build Alternatives

Three potential Build Alternatives were developed. The plan and profile drawings, Design Report and Cost Estimates for these three potential Build Alternatives are included in Appendix C.

2.3.1 Avondale Garden Road Alternative – new grade separated roadway connecting US 90 and River Road (LA 18)

The Avondale Garden Road (AGR) Alternative would construct a new grade separated roadway between the AGR residential properties and the Truck Stop and Container Yard, connecting US 90 and River Road. The horizontal alignment to the south was selected to avoid impacts to AGR residential property. The horizontal alignment and curve to the north were selected to avoid the Holy Angels Cemetery and Mississippi River Levee System impacts.

The Alternative would close both the existing George Street and AGR at-grade crossings and add a new, direct connection from AGR to this new alternative and relocate access to the Intermodal Terminal and Container Yard via a new Access Road. This alternative would cul-de-sac AGR at US 90 and the existing intersection with US 90 would be removed and replaced with a new signalized intersection of the Alternative, AGR (Canal), and US 90 providing the dedicated left- and right-turn and U-turn movements present at the existing intersection. Direct neighborhood access to the Alternative and a dedicated left-turn movement from this Alternative to US 90 eastbound would also be provided. This alternative would expand Jefferson Parish's Bicycle/Pedestrian access by providing a dedicated bike lane.

The AGR Alternative was presented for stakeholder review during the April 2024 Alternatives Meetings (see Section 4.5). This alternative was refined following the meetings to increase the mainline travel lane widths through the curves to eliminate semi-truck (WB-67 Interstate Semitrailer with 53-foot trailer[2]) off tracking[3]. The mainline horizontal and vertical geometry remained unchanged. The Access Road lane width also required widening to eliminate WB-67 vehicle off tracking. The Access Road horizontal and vertical geometry was revised to reduce the number of curves requiring widening from three to one.

The refined AGR Alternative is shown in Exhibits 2-1 and 2-2 and has an estimated cost of $65.5 Million.

2.3.2 Willswood Lane Realignment – realign and grade separate the existing Willswood Lane

The Willswood Lane Realignment would realign, and grade separate the existing Willswood Lane to the east, closing the existing Willswood Lane at-grade crossing. Access to existing residential properties would be maintained via the existing roadway. This alternative would also expand Jefferson Parish's Bicycle/Pedestrian access by providing paved shoulders through the realigned roadway.

The Willswood Lane Realignment was also presented for stakeholder review during the April 2024 Alternatives Meetings (see Section 4.5). This alternative was also refined following the meetings to increase the sight distance between the bridge ends and the adjacent intersections. The Willswood Lane Realignment horizontal and vertical geometry were partially revised.

The refined Willswood Lane Realignment is shown in Exhibit 2-3 and has an estimated cost of $55.0 Million.

2.3.3 Willswood Lane Alternate – new grade separated roadway connecting Live Oak Boulevard and River Road (LA 18)

The Willswood Lane Alternate Build would construct a new grade separated roadway west of Willswood Lane through undeveloped land and the paper-platted Willowbend Subdivision, connecting Live Oak Boulevard and River Road (LA 18). The existing Willswood Lane at-grade crossing would be closed. The trip length for Willswood Lane residents and other roadway users would increase by no more than 1.75 miles, depending on the travel destination, which satisfies TWG median trip length guidance. This alternative would also expand Jefferson Parish's Bicycle/Pedestrian access by providing paved shoulders.

The Willswood Lane Alternate presented for stakeholder review during the April 2024 Alternatives Meetings (see Section 4.5) remained unchanged. This alternative is shown in Exhibit 2-4 and has an estimated cost of $48.1 Million.

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[2] NCHRP Report 505, Review of Truck Characteristics as Factors in Roadway Design, Chapter 4 – Design Vehicles, National Cooperative Highway Research Program, Transportation Research Board, 2003. Accessed November 1, 2024. https://nap.nationalacademies.org/read/23379/chapter/6

[3] Off tracking is the term used to describe the difference in path radii between the leading and trailing axle of a vehicle as it maneuvers around a turn. Accessed October 31, 2024. https://www.sae.org/publications/technical-papers/content/2000-01-0465/

Exhibit 2-1: Avondale Garden Road Alternative – new grade separated roadway connecting US 90 and River Road (LA 18)

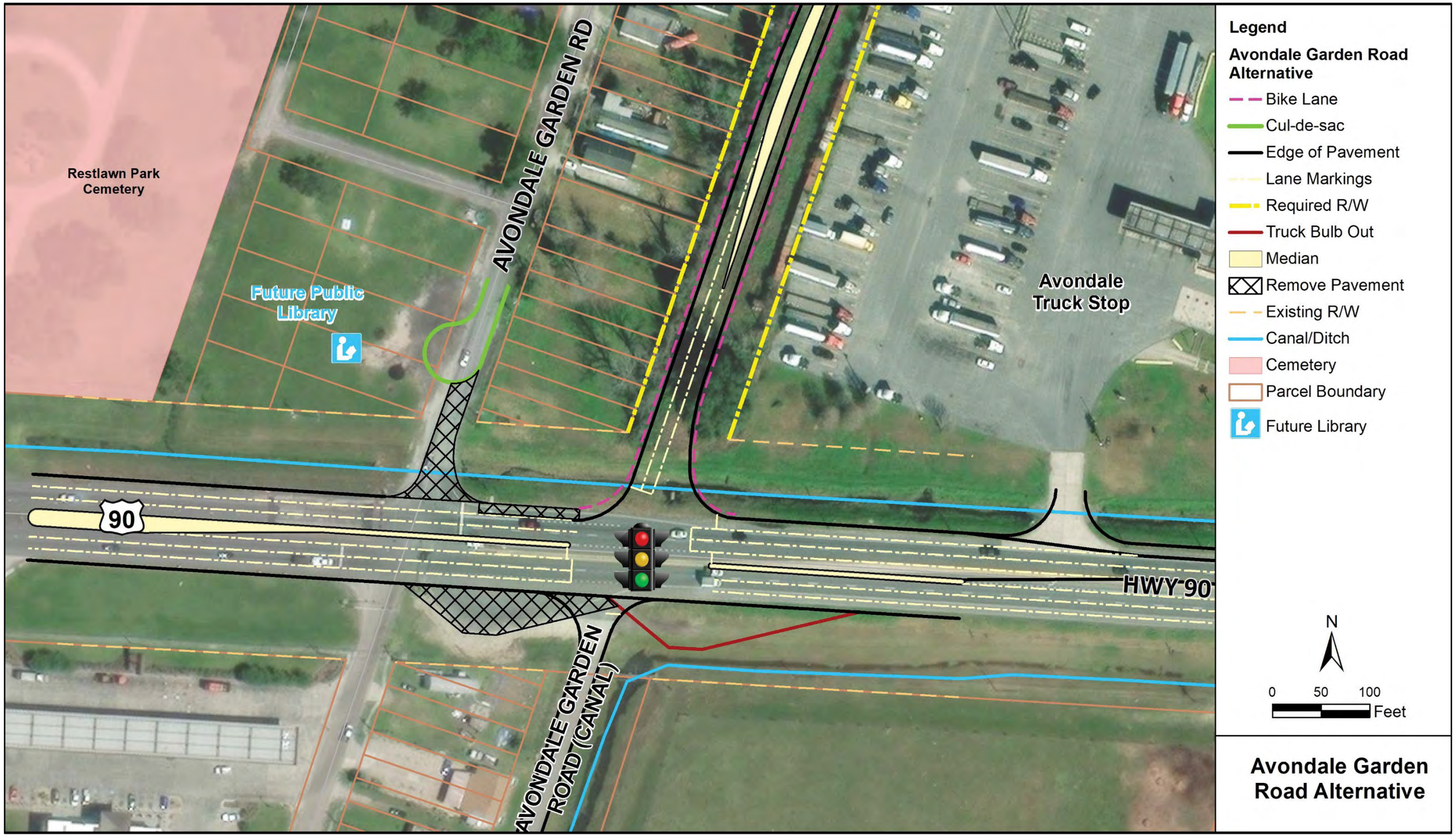

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Exhibit 2-2: Avondale Garden Road Alternative – new grade separated roadway connecting US 90 and River Road (LA 18) (cont'd)

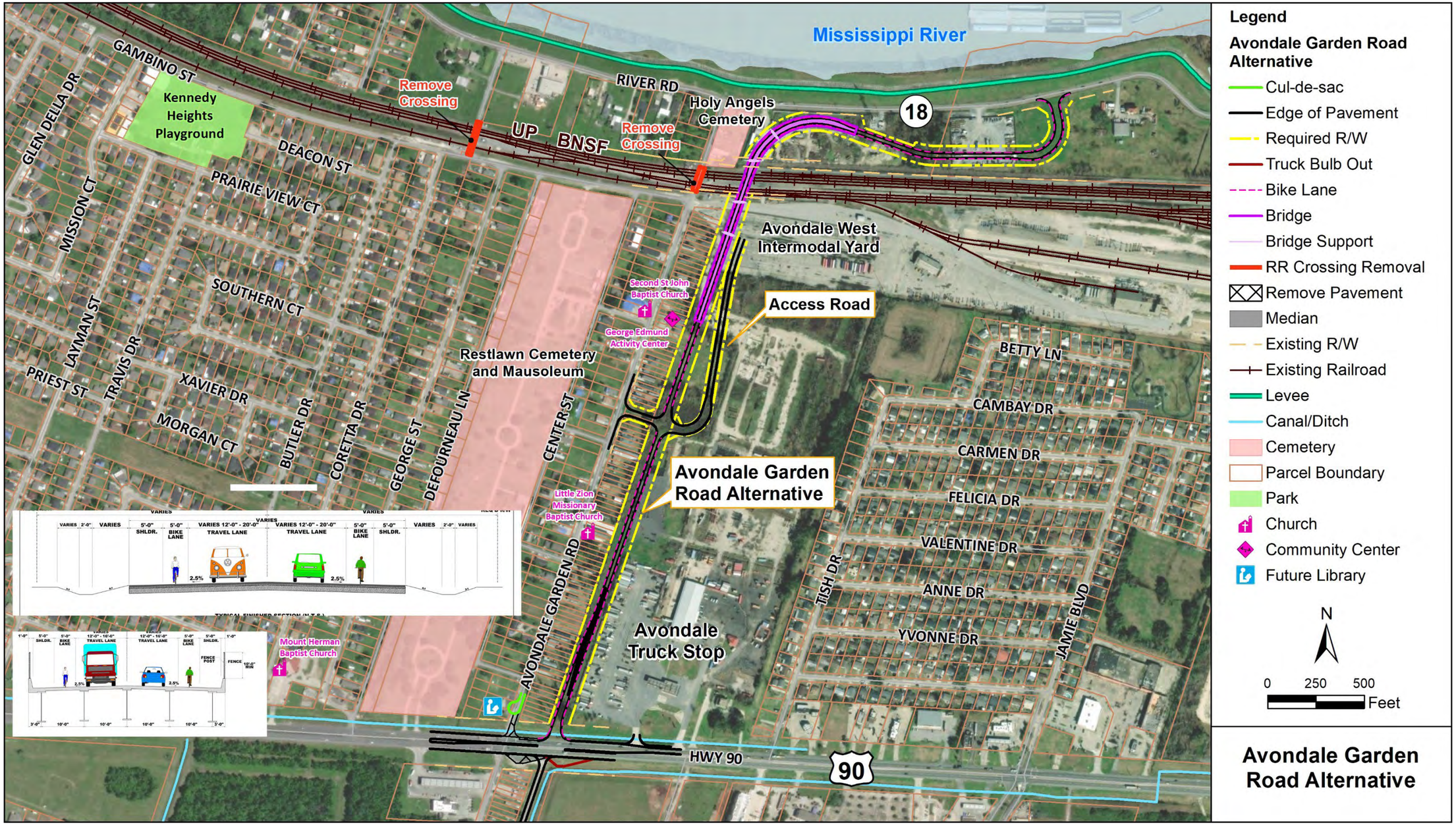

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Exhibit 2-3: Willswood Lane Realignment – realign and grade separate the existing Willswood Lane

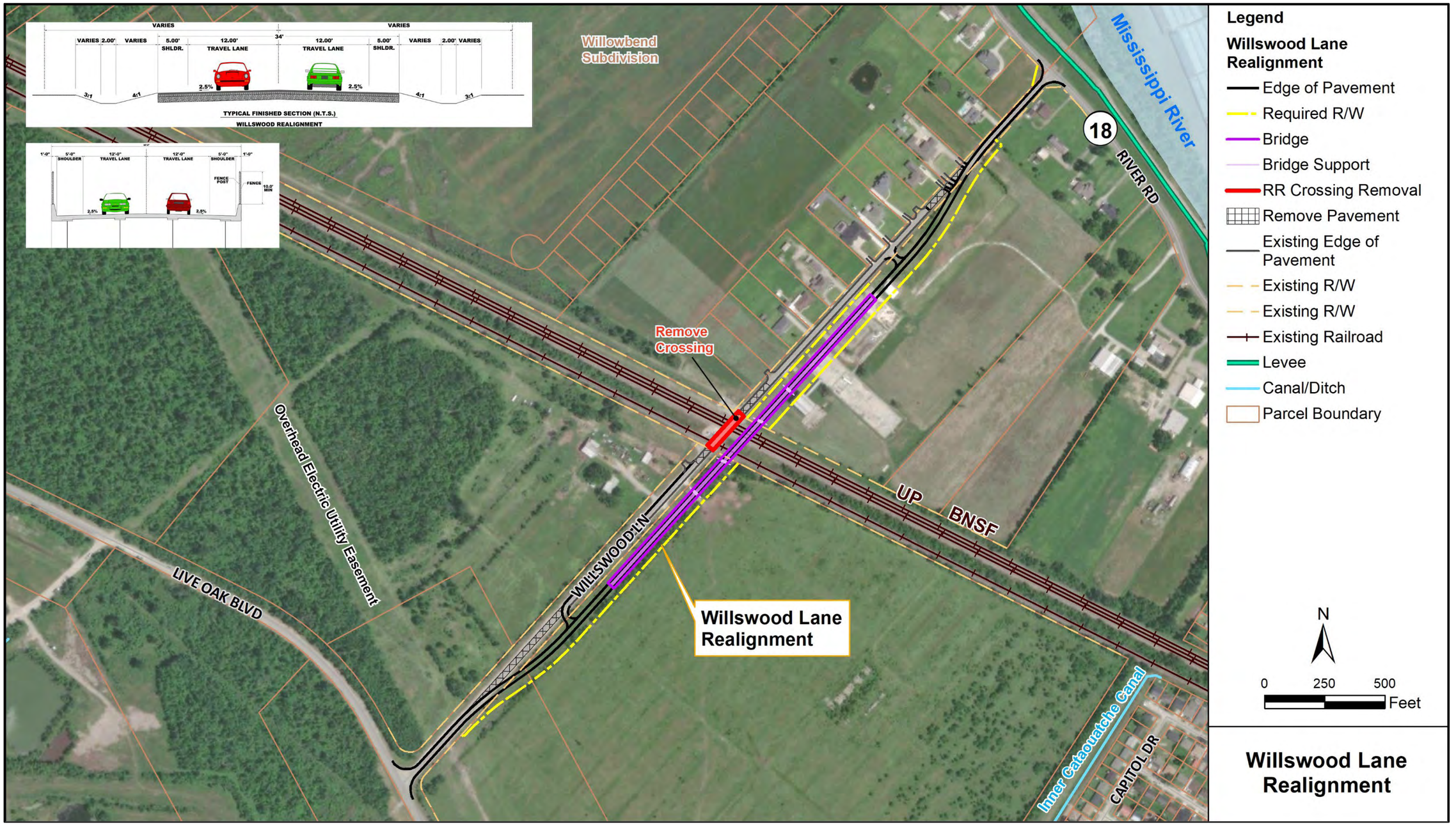

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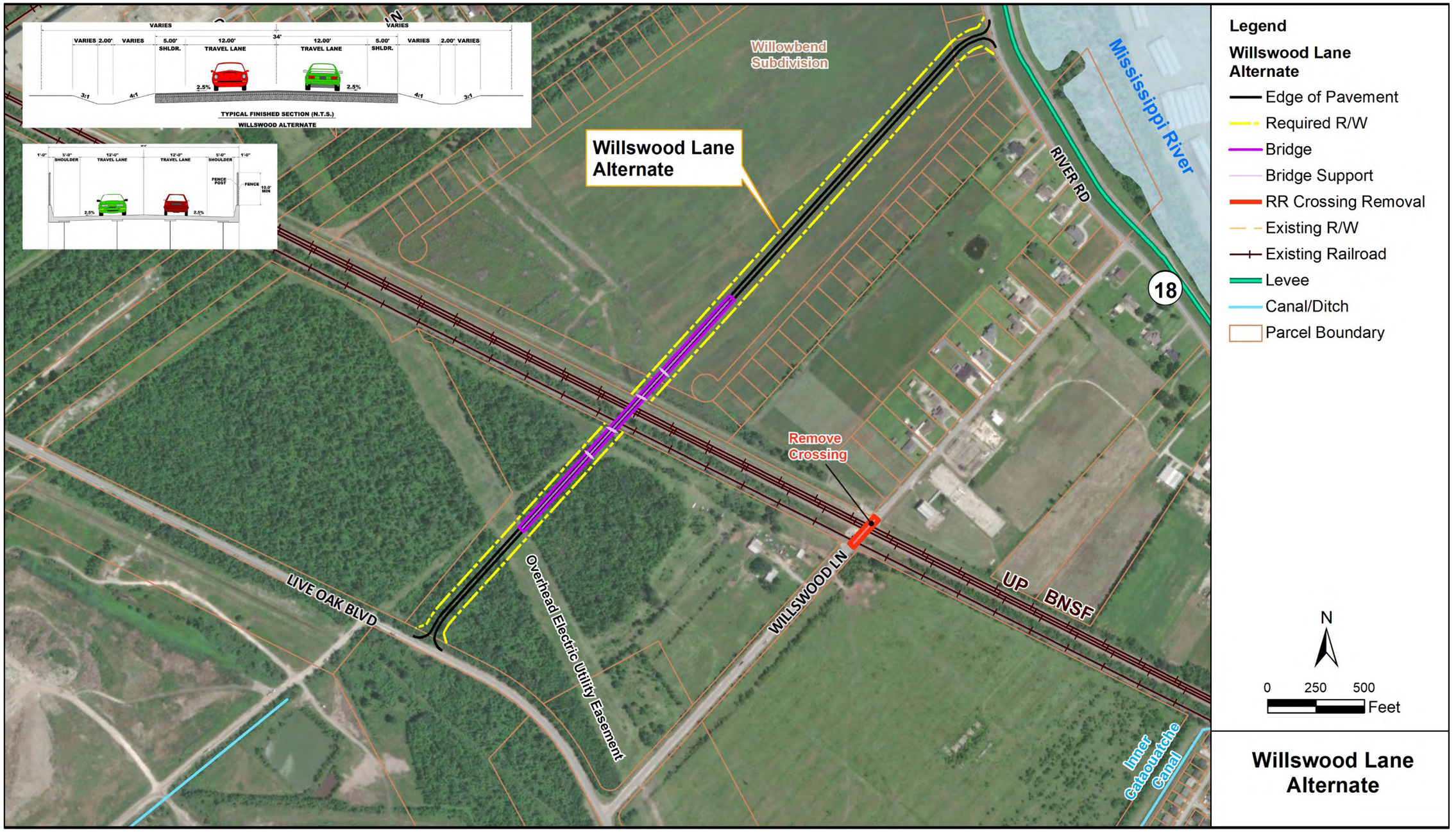
Exhibit 2-4: Willswood Lane Alternate – new grade separated roadway connecting Live Oak Boulevard and River Road (LA 18)



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2.4 Alternatives Evaluation

2.4.1 Purpose and Need

The No-Action and three Build Alternatives were first evaluated against the Purpose and Need discussed in Section 1 (see Table 2-2). The criteria evaluated includes:

- Improve Safety
- Improve Mobility
- Improve Multimodal Connectivity
- Support Economic Development
- Improve/Encourage a Shared-Use Environment

No-Action Alternative

The No-Action Alternative does not satisfy any of the criteria identified above. Under the No-Action Alternative, only normal maintenance activities and planned safety and other improvements would continue. The highway-rail at-grade crossings would remain, and vehicle queueing and delay mobility impacts would increase as the train crossing events increase.

The No-Action Alternative would not improve safety at the railroad crossings. Multimodal connectivity would also not improve because the increasing train lengths would contribute to longer delays at the existing highway-rail grade crossings. Congestion on neighboring intersections and streets would increase, adversely influencing area development and economic growth.

The No-Action Alternative would not construct bicycle/pedestrian facilities along Avondale Garden Road or Willswood Lane, as recommended in the Jefferson Parish Bicycle Master Plan (JP, 2013), to improve/encourage a Shared-Use Environment.

Avondale Garden Road Alternative

The Avondale Garden Road (AGR) Alternative satisfies all the criteria identified above. Safety and mobility would be expected to improve because the AGR and George Street at-grade highway-rail crossings would both be removed, and the train crossing induced vehicle queueing and delay eliminated.

Multimodal connectivity would improve because fluidity with the Avondale Intermodal Terminal and Container Yard by improving access. Closing the two at-grade crossings and grade separating the rail network would eliminate the train crossing induced queueing and delays and subsequent congestion on neighboring intersections and streets, supporting area development and economic growth.

The AGR Alternative would construct dedicated north-bound and south-bound bike lanes connecting US 90 and River Road (LA 18) to improve/encourage a shared-use environment for bicycle and pedestrian travel.

Willswood Lane Realignment

The Willswood Lane Realignment satisfies most of the criteria identified above. Safety and mobility would be expected to improve because the at-grade highway-rail crossing would be removed, and the train crossing induced vehicle queueing and delay eliminated.

Multimodal connectivity would not improve because fluidity with the Avondale Intermodal Terminal and Container Yard would remain unchanged. Closing the at-grade crossing and grade separating the rail network would eliminate the train crossing induced queueing and delays, supporting area development and economic growth.

The Willswood Lane Realignment would construct paved shoulders connecting Live Oak Boulevard and River Road (LA 18) to improve/encourage a shared-use environment for bicycle and pedestrian travel.

Willswood Lane Alternate

The Willswood Lane Alternate also satisfies most of the criteria identified above. Safety and mobility would be expected to improve because the at-grade highway-rail crossing at Willswood Lane would be removed. Train crossing induced vehicle queueing and delay would be eliminated, but the trip length for Willswood Lane residents and other roadway users would increase by up to 1.75 additional miles, depending on the travel destination.

Multimodal connectivity would not improve because fluidity with the Avondale Intermodal Terminal and Container Yard would remain unchanged. Closing the at-grade crossing and grade separating the rail network would eliminate the train crossing induced queueing and delays, supporting area development and economic growth.

The Willswood Lane Alternate would construct paved shoulders connecting Live Oak Boulevard and River Road (LA 18) to improve/encourage a shared-use environment for bicycle and pedestrian travel.

Table 2-2: Alternative Evaluation Against Project Purpose and Need

Evaluation Criteria	No-Action Alternative	Avondale Garden Road Alternative	Willswood Lane Realignment	Willswood Lane Alternate
Improve Safety	− All crossing conflict points remain	+ Removes AGR and George Street crossing conflict points	+ Removes Willswood Lane crossing conflict point	+ Removes Willswood Lane crossing conflict point
Improve Mobility				
Level of Service (LOS) during Train Crossing Event	− LOS F	+ LOS B or Better at Alternative	+ LOS B or Better at Realignment	+ LOS B or Better at Alternate
Daily AM & PM Peak Period Delay	− > 30 hours	+ 0 hours at Alternative	+ 0 hours at Realignment	+ 0 hours at Alternate
Queueing	− Excessive queueing impacting area traffic and first responder mobility	+ No queueing (Free flow) at Alternative	+ No queueing (Free flow) at Realignment	+ No queueing (Free flow) at Alternate

Evaluation Criteria	No-Action Alternative	Avondale Garden Road Alternative	Willswood Lane Realignment	Willswood Lane Alternate
Emergency Response	− Restricts delivery of emergency services	+ Enables unrestricted delivery of emergency services at Alternative	+ Enables unrestricted delivery of emergency services at Realignment	+ Enables unrestricted delivery of emergency services at Alternate
Improve Multimodal Connectivity	− Limits fluidity with the Avondale Intermodal Terminal and Container Yard	+ Enhances fluidity with the Avondale Intermodal Terminal and Container Yard by improving access	− Fluidity with the Avondale Intermodal Terminal and Container Yard remains unchanged	− Fluidity with the Avondale Intermodal Terminal and Container Yard remains unchanged
Support Economic Development	− Restricts ease of access	+ Increases ease of access	+ Increases ease of access	+ Increases ease of access
Improve/Encourage a Shared-Use Environment	− Does not accommodate shared-use environment	+ Accomodates planned shared-use environment	+ Accomodates planned shared-use environment	+ Accomodates planned shared-use environment

2.4.2 Environmental Resources and Other Criteria

The No-Action and three Build Alternatives were then evaluated against the social, natural, and cultural environmental resources and other criteria. The No-Action Alternative was retained for comparison with the Build Alternatives (see Table 2-3). Section 3 discusses the environmental resources considered, the No-Action's and Build Alternative's potential impacts, and other criteria. Section 4 discusses the public involvement, agency and tribal outreach, and railroad and Jefferson Parish coordination.

Table 2-3: Alternative Evaluation Against Environmental Resources and Other Criteria

Evaluation Criteria	No-Action Alternative	Avondale Garden Road Alternative	Willswood Lane Realignment	Willswood Lane Alternate
RESOURCES CONSIDERED				
Land Use				
Total Right of Way Required (acres)	+ 0.0	− 14.6	+ 5.6	− 9.4
Rezoning from Light Industrial to Transportation Use (acres)	+ 0.0	+ 14.6	+ 0.0	+ 3.3
Rezoning from Neighborhood Commercial to Transportation Use (acres)	+ 0.0	+ 0.0	+ 0.1	+ 0.0

Evaluation Criteria	No-Action Alternative	Avondale Garden Road Alternative	Willswood Lane Realignment	Willswood Lane Alternate
Rezoning from Suburban to Transportation Use (acres)	0.0	0.0	5.5	6.1
Enterprise Zones	No impact	Impacts area between the tracks and River Road (LA 18)	Impacts area between Live Oak Blvd and the tracks	Impacts area between Live Oak Blvd and the tracks
New Market Tax Credit Zones	No impact	Impacts area between US 90 and the tracks	Impacts area between Live Oak Blvd and River Road (LA 18)	Impacts area between Live Oak Blvd and River Road (LA 18)
Opportunity Zones	No impact	Impacts area between the tracks and River Road (LA 18)	No impact	No impact
Transportation				
Roadway Network	Crossing related congestion and delay remain	Eliminates crossing related congestion and delay	Eliminates crossing related congestion and delay	Eliminates crossing related congestion and delay but would increase trip length
Rail Transportation	Existing and forecast rail traffic continues	Existing and forecast rail traffic continues	Existing and forecast rail traffic continues	Existing and forecast rail traffic continues
Transit	Transit is unaffected	Transit route would require changes	Transit route is unaffected	Transit route is unaffected
Pedestrians & Bicyclists	Does not enhance bike/ped opportunities	Provides recommended bike/ped opportunities	Provides recommended bike/ped opportunities	Provides recommended bike/ped opportunities
Relocations				
Commercial Displacements/Impacts (each)	0	2 (displaced) 2 (partial)	0	0

Evaluation Criteria	No-Action Alternative	Avondale Garden Road Alternative	Willswood Lane Realignment	Willswood Lane Alternate
Residential Impacts (each)	0	0	0	0
Community Facility Impacts (each)	0	1	0	0
Water Quality				
Water Wells (each)	0	0	0	0
Public Safety				
Safety, Security and Reliability	Does not improve crossing or bike/ped safety, or delivery of emergency services	Facilitates safety, security, and reliability	Facilitates safety, security, and reliability	Facilitates safety, security, and reliability
RESOURCES CONSIDERED IN LATER ENVIRONMENTAL REVIEWS				
Cultural Resources	No impacts	A 2023 records review did not identify sites listed on or eligible for listing in the National Register of Historic Places (NRHP)	A 2023 records review did not identify sites listed on or eligible for listing in the National Register of Historic Places (NRHP)	A 2023 records review did not identify sites listed on or eligible for listing in the National Register of Historic Places (NRHP)
Section 4(f) Resources	No impacts	No known impacts	No known impacts	No known impacts
Hazardous Materials and Waste	No impacts	No known impacts based on a 2011 review of known hazardous materials sites, Sanborn maps, and historic aerial photography and subsequent 2022 review of EPA databases	No known impacts based on a 2011 review of known hazardous materials sites, Sanborn maps, and historic aerial photography and subsequent 2022 review of EPA databases	No known impacts based on a 2011 review of known hazardous materials sites, Sanborn maps, and historic aerial photography and subsequent 2022 review of EPA databases
Noise	No impacts	Potential impacts.	Potential impacts	Potential impacts

Evaluation Criteria	No-Action Alternative		Avondale Garden Road Alternative		Willswood Lane Realignment	Willswood Lane Alternate
Communities and Environmental Justice						
Community Facilities	No impacts		No impacts		No impacts	No impacts
LEP Populations	No impacts		No known impacts		No known impacts	No known impacts
Environmental Justice Populations	No impacts		Potential impacts		Potential impacts	Potential impacts
Waters of the US						
Wetlands (acres)	0		0 based on NWI data		0 based on NWI data	Bridges 2 wetlands and impacts 1 wetland based on NWI data
Floodplains						
100-Year Floodplains	No impacts		Potential impacts		Potential impacts	Potential impacts
Navigable Waterways	No impacts		No anticipated impacts		No anticipated impacts	No anticipated impacts
Coastal Zones	No impacts		Potential impacts		Potential impacts	Potential impacts
OTHER CRITERIA						
Railroad Support (see Section 4.5 and Appendix D)	N/A		UP prefers this Alternative if only one is advanced		UP supports this Alternative	UP supports this Alternative
Total Cost (x $1,000,000)	$0.0		$65.5		$55.0	$48.1

N/A – Not applicable

2.5 Federal Funding Opportunities

DOTD anticipates advancing the Project through the DOTD Stage 1 – Planning/Environmental project delivery process using current State and Federal funds, with DOTD Stage 2 and beyond performed by Jefferson Parish and/or the RPC.

AGR, George Street, Willswood Lane and Live Oak Boulevard are all roadways owned and maintained by Jefferson Parish. AGR and Live Oak Boulevard are currently Federal-Aid eligible[4], while George Street and Willswood Lane are not. The AGR Alternative could be designed and constructed using Federal-Aid funding.

[4] To be eligible for Federal-aid funding in Louisiana, a highway must have a certain functional classification. AGR and Live Oak Boulevard are classified as Minor Urban Collectors on the Louisiana Department of Transportation 2010 New Orleans Highway Functional Classification Urbanized Area Map and satisfy this requirement. Accessed March 19, 2025.
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Multimodal/Data_Collection/Mapping/Proposed%20Urbanized%20Maps/New_Orleans.pdf

The Willswood Lane alternatives could be designed and constructed using Federal Off-System bridge funding, but those funds are in high demand. Jefferson Parish and/or the RPC may not be able to rely on the availability of those funds. The RPC, in coordination with Jefferson Parish, could request changing the roadway's functional classification so that Federal-Aid funding could be used.

2.6 Recommendations

The objective of this PEL study was to identify feasible alternatives that meet the purpose and need while preserving existing resources and could be further advanced into DOTD's Project Delivery Process. 23 USC Chapter 1 §168 (b)(1) allows for NEPA decisions to be made using planning documents accepted by the Federal agency, either by adoption or incorporation by reference, in proceedings relating to any class of action in the NEPA process of the project.

All three Build Alternatives, one for the AGR at-grade crossing, and two for the Willswood Lane at-grade crossing, could potentially be constructed. All alternatives would eliminate crossing delay at their respective at-grade crossing locations.

The Build Alternatives were first screened against the Purpose and Need. The AGR alternative would improve multimodal connectivity by improving access to the Avondale Intermodal Terminal and Container Yard. Access to the Terminal and Container Yard would remain unchanged under the two Willswood Lane alternatives. The other identified Purpose and Need criteria evaluated were identical for all Build Alternatives.

The Build Alternatives were next screened against environmental resources and other criteria. The Willswood Lane Alternate would result in an increased 1.75 mile trip length, depending on travel destination. The AGR Alternative could result in two commercial displacements and partial impacts to two other commercial properties. The environmental resources and other criteria evaluated were relatively identical between all Build Alternatives. Table 2-2 and Table 2-3 presents the screening evaluation.

All three Build Alternatives satisfy the Purpose and Need, have no known fatal flaws or significant differences in the screening evaluation, and could be further advanced into DOTD's Project Delivery Process.

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3. ENVIRONMENTAL RESOURCES AND POTENTIAL IMPACTS

This Section describes the environmental resources by resource category and potential direct impacts to those resources by the No-Action and the Build Alternatives. If Federal funding is used to construct the Project, FRA and FHWA would require that the Project comply with the commitments and mitigation measures identified in environmental review documents.

3.1 Resources Evaluated

3.1.1 Land Use

Envision Jefferson 2040, Jefferson Parish's Comprehensive Plan (JP, 2040) states that over the next 20 years many of Jefferson Parish's existing land uses will remain stable and others will evolve to meet market demands. The Comprehensive Plan's Future Land Use Map (FLUM) (see Appendix E Exhibit G-1) categorizes the Study Area as a combination of community facilities; commercial; heavy industrial; production, distribution, and repair; rural; and suburban residential. There is abundant undeveloped land.

The Parish's zoning regulations (Code of Ordinances Chapters 33 and 40) regulate and provide a framework for the location and use of land, buildings, and structures; the height and size of buildings; the area of yards and other open spaces; and the density and intensity of land development. The Study Area includes Light Industrial (IL), Single Family Residential (R1A), Two-Family Residential (R2), General Commercial (C2), Neighborhood Commercial (C1), and Suburban (S1) Districts. Areas along US 90, Willswood Lane, and Live Oak Boulevard are also designated as Commercial Parkway Overlay Zones (CPZ), which use landscape and buffer requirements to enhance the quality of development located on arterial streets and collectors (see Appendix E Exhibits E-2 through E-5).

No-Action Alternative – No changes in land use would occur if the Project were not constructed.

Avondale Garden Road Alternative – This alternative would potentially convert approximately 14.6 acres of land zoned Light Industrial (IL) to transportation use (see Exhibit 3-1). This alternative would impact designated Enterprise, New Market Tax Credit and Opportunity Zones (see Appendix E).

Willswood Lane Realignment – This alternative would potentially convert approximately 0.1 acres of land zoned Neighborhood Commercial (C1) and 5.5 acres of land zoned Suburban (S1) to transportation use (see Exhibit 3-2). This alternative would impact designated Enterprise and New Market Tax Credit, but not Opportunity Zones (see Appendix E).

Willswood Lane Alternate – This alternative would potentially convert approximately 3.3 acres of land zoned Light Industrial (IL) and 6.1 acres of land zoned Suburban (S1) to transportation use (see Exhibit 3-2). This alternative would also impact designated Enterprise and New Market Tax Credit, but not Opportunity Zones (see Appendix E).

Exhibit 3-1: Avondale Garden Road Alternative - Future Land Use

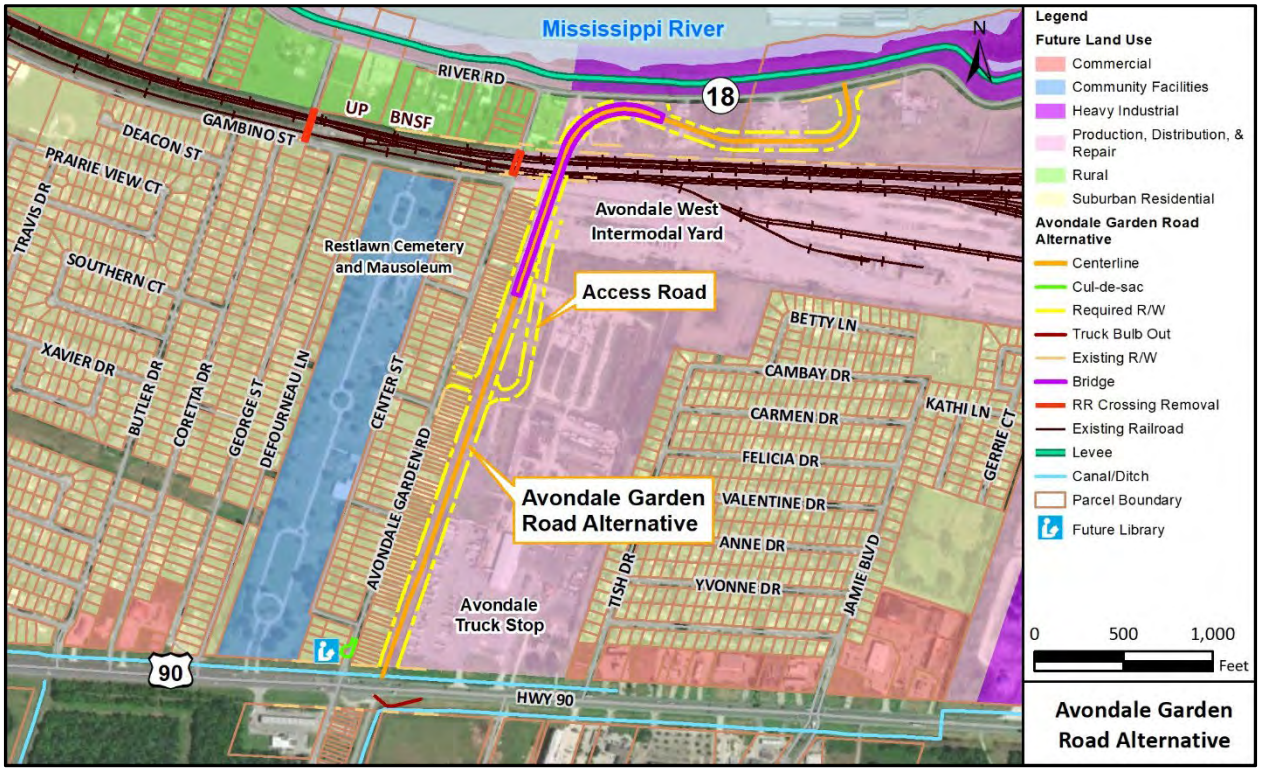

Exhibit 3-2: Willswood Lane Alternate and Realignment Alternatives – Future Land Use

3.1.2 Transportation

Roadway Network

Avondale Garden Road and Live Oak Boulevard are classified as Minor Urban Collectors. George Street and Willswood Lane are classified as Local Roads. All roadways are owned and maintained by Jefferson Parish.

Avondale Garden Road is two lanes with one 10-foot-wide travel lane in each direction of vehicular travel. The roadway is posted No Truck Route, 5-Ton Limit with a posted speed limit of 20 mph. In 2021, an average of 1,070 vehicles per day traveled Avondale Garden Road.

George Street is also two lanes with one 9-foot-wide travel lane in each direction of vehicular travel. The roadway is posted No Truck Route, 5-Ton Limit with a posted speed limit of 20 mph. In 2021, an average of 1,910 vehicles per day traveled George Street.

Willswood Lane is two lanes with one 12-foot-wide travel lane in each direction of vehicular travel. The roadway has a posted speed limit of 40 mph in the northbound direction and 20 mph in the southbound direction. In 2021, an average of 1,210 vehicles per day traveled Willswood Lane.

Live Oak Boulevard is two lanes with one 12.5-foot-wide travel lane in each direction of vehicular travel. The roadway is posted No Truck Route, 5-Ton Limit with a posted speed limit of 40 mph. In 2021, an average of 3,610 vehicles per day traveled Live Oak Boulevard.

Major east-west oriented roadways include River Road (LA 18) and US 90 to the north and south of the Study Area, respectively. River Road (LA 18) is classified as a Minor Urban Arterial with a posted speed of 35 mph. The roadway is two lanes with 12-foot-wide travel lanes in each direction of vehicular travel. US 90 is classified as a Principal Urban Arterial with a posted speed of 35 mph. The roadway is a divided highway with two 11-foot-wide travel lanes in each direction of vehicular travel.

Rail Transportation

The New Orleans region represents a vital junction within the national freight rail transportation network. The Huey P. Long Bridge, located west of the Study Area, is the southern-most rail crossing of the Mississippi River in the United States. Six Class I freight rail companies (Norfolk Southern (NS), CPKC [formerly Kansas City Southern (KCS)], Union Pacific (UPRR), Burlington Northern Santa Fe (BNSF), Canadian National (CN), and CSX) and one Class III short line (The New Orleans Public Belt) operate through the New Orleans metropolitan area. The New Orleans area is one of only four Gateways in the Nation where six Class I railroads meet.

The New Orleans Public Belt Railroad (NOPB) services and exchanges with all the Class I Railroads in the area. The NOPB moves freight across Jefferson Highway, which connects rail cars to and from the UPRR, BNSF, CN, and CPKC to the Port of New Orleans, NS, and CSX. These cars can be delivered to one of the six Port of New Orleans Terminals (Henry Clay Avenue, Nashville Avenue, Napoleon Avenue, Milan Street, Louisiana Avenue, and First Street) as a final destination. Rail cars not heading to any Port Customers are classified at Cotton Warehouse Railyard. Storage cars are delivered and stagged at Claiborne, France, Pauline, Race St., East Bridge, King Fish, and South Bulk Railyards. The NOPB is building additional railyards and transload facilities to meet the industry's future growth needs.

USDOT Crossing Inventory Forms (see Appendix F) indicate daily average number of trains crossing the Avondale Garden Road, George Street, Willswood Lane, and Live Oak Boulevard crossings (both thru trains and switching moves) are 44, 32, 31, and 14 trains, with crossing occupancy times of 7.80, 5.71, 3.28, and 1.82 hours daily, respectively.

UP indicated that a conservative increase of one percent (1.0%) Compound Annual Growth Rate (CAGR) would be appropriate for forecasting 2048 Horizon Year train volumes, resulting in a thirty-percent increase over the Base Year volumes. UPRR and BNSF currently operate trains in the Region between 10,000 and 12,000 feet in length and expect lengths to approach 14,000 feet in the future. The 2048 daily average number of trains crossing the four at-grade crossings is expected to increase to 57, 42, 41 and 18 trains with crossing occupancy times increasing to 11.27, 8.32, 5.27, and 3.17 hours, respectively

The Traffic Engineering Process and Report (VCS, 2024) – Chapter 2: Existing/No-Build Analysis indicates that the total vehicular impact time of train crossing the four roadways, including the train occupancy time and queue clearance time, varies from 13.42 to 47.98 vehicle hours per day (vhpd) for the 2021 Existing and 19.37 to 80.26 vhpd for the 2048 Horizon Year, respectively.

Transit

The Jefferson Parish Transit's Avondale W1 route buses operate within the Study Area along US 90, Avondale Garden Road, and Gambino Road and within the Kennedy Heights neighborhood along Butler, Bishop, Glen Della, Cathedral, Senate, and Capitol Drives, and Church Street, returning to US 90 via Glen Della Drive, Gambino and Avondale Garden Roads. The buses operates seven days a week from 5:08 am to 6:09 pm on weekdays and from 6:30 am to 6:15 pm on weekends and holidays. Bus stops are located approximately every two blocks along the route[5].

Pedestrians and Bicyclists

The Study Area has limited opportunities for walking and bicycling. There is no sidewalk access along Avondale Garden Road, Willswood Lane, Live Oak Boulevard, or George Street in the vicinity of the crossing. There is no pedestrian crossing treatment at any of the four at-grade crossings.

The Jefferson Parish Bicycle Master Plan (JP, 2013) identified a bicycle boulevard within the Kennedy Heights neighborhood and paved shoulders along US 90, Willswood Land and Live Oak Boulevard, connecting to the Mississippi River Trail[6].

No-Action Alternative – If the Project were not constructed, vehicular transportation delays would persist as trains continue operating across the at-grade crossings. Delivery of emergency service and pedestrian/bicyclist opportunities would not improve, and block crossing frequency would continue to increase.

Avondale Garden Road Alternative – This Alternative would eliminate the vehicular transportation delays due to trains operating across the Avondale Garden Road and George Street crossings. Delivery of emergency service would improve, and paved shoulders and bicycle lanes would provide pedestrian and bicyclist opportunities. Roadway construction-related impacts and delays would be temporary and limited to constructing the new access road and intersections with US 90 and River Road (LA 18). Rail construction-

[5] Avondale W1 Route, Maps and Schedules, Jefferson Parish Transit, Accessed August 8, 2024. https://jptransit.org/route/w1-avondale/

[6] Mississippi River Trail (Louisiana) Trail Map, Rails to Trails Conservancy, Accessed August 8, 2024. https://www.traillink.com/trail/mississippi-river-trail-(louisiana)/

related impacts and delays would be temporary and limited to potentially constructing shoring tower(s) for steel beam erection. Roadway and rail maintenance of traffic and construction phasing would be determined during final design. Railroad Construction and Maintenance and Right-of-Entry Agreements would be required. This alternative would require changes to the Jefferson Parish Transit Avondale W1 route to utilize the new roadway.

Willswood Lane Realignment – This Alternative would eliminate the vehicular transportation delays due to trains operating across the Willswood Lane crossing. Delivery of emergency service would improve, and paved shoulders would provide pedestrian and bicyclist opportunities. Roadway construction-related impacts and delays would be temporary and limited to constructing the new intersections with Live Oak Boulevard and River Road (LA 18) and maintaining access to residences. Rail construction-related impacts and delays would be temporary and limited to potentially constructing shoring tower(s) and crane placement for steel beam erection. Roadway and rail maintenance of traffic and construction phasing would be determined during final design. Railroad Construction and Maintenance and Right-of-Entry Agreements would be required. The Jefferson Parish Transit Avondale W1 route would be unaffected by this alternative.

Willswood Lane Alternate – This Alternative also would eliminate the vehicular transportation delays due to trains operating across the Willswood Lane crossing. Delivery of emergency service would improve, and paved shoulders would provide pedestrian and bicyclist opportunities. Roadway construction-related impacts and delays would be temporary and limited to the new intersections with Live Oak Boulevard and River Road (LA 18). Rail construction-related impacts and delays would be temporary and limited to potentially constructing shoring tower(s) and crane placement for steel beam erection. Roadway and rail maintenance of traffic and construction phasing would be determined during final design. Railroad Construction and Maintenance and Right-of-Entry Agreements would be required. The Jefferson Parish Transit Avondale W1 route would be unaffected by this alternative.

3.1.3 Relocations

Potential commercial and residential relocations were estimated for the Build Alternatives developed.

No-Action Alternative – No commercial or residential relocations would occur if the Project were not constructed.

Avondale Garden Road Alternative – This alternative would require the relocation of two (2) commercial properties and partially impact a future community facility. The Jefferson Parish GIS parcel layer is incomplete within the Study Area, but it appears that two (2) additional commercial properties would have partial impacts (see Table 3-1 and Exhibit 3-3).

Willswood Lane Realignment – No commercial or residential relocations would occur with this alternative. The Jefferson Parish GIS parcel layer is incomplete within the Study Area. Farmed and undeveloped land, including Phillip's Farm would have partial impacts (see Table 3-1 and Exhibit 3-4).

Willswood Lane Alternate – No commercial or residential relocations would occur with this alternative, but the paper-platted Willowbend Subdivision would have partial impacts. Undeveloped land between Live Oak Boulevard and the railroad tracks would also have partial impacts (see Table 3-1 and Exhibit 3-5).

A Conceptual Stage Relocation Plan (CSRP) assessing the availability of comparable replacement commercial and residential property within the Study Area has not yet been prepared. Louisiana laws governing acquisition and relocation assistance are fashioned after the Uniform Relocation and Real Property

Acquisition Act of 1970 as amended (Uniform Act). Additionally, the Project will need to comply with the federal requirements in the Uniform Act.

Table 3-1: Relocations and Partial Impacts

Name	Map ID	Property Type	Avondale Garden Road Alternative		Willswood Lane Realignment		Willswood Lane Alternate	
			Relocation	Partial Impact	Relocation	Partial Impact	Relocation	Partial Impact
Concrete Busters	1	Commercial	X					
LIV Transport / RAW Disposal	2	Commercial	X					
Future Avondale Public Library	3	Community Facility		X				
Avondale Truck Stop	4	Commercial		X				
Avondale Container Yard	5	Commercial		X				
Phillip's Farm	6	Agriculture				X		
Undeveloped Land	7	Undeveloped		X		X		X
Willowbend Subdivision	8	Residential						X

Source: Michael Baker International, Inc.

Exhibit 3-3: Avondale Garden Road Alternative Relocations

Map ID	Name	Property Type	Impact Type
1	Concrete Busters	Commercial	Relocation
2	LIV Transport/RAW Disposal	Commercial	Relocation
3	Future Avondale Public Library	Community Facility	Partial Impact
4	Avondale Truck Stop	Commercial	Partial Impact
5	Avondale Container Yard	Commercial	Partial Impact
7	Undeveloped Land	Undeveloped	Partial Impact

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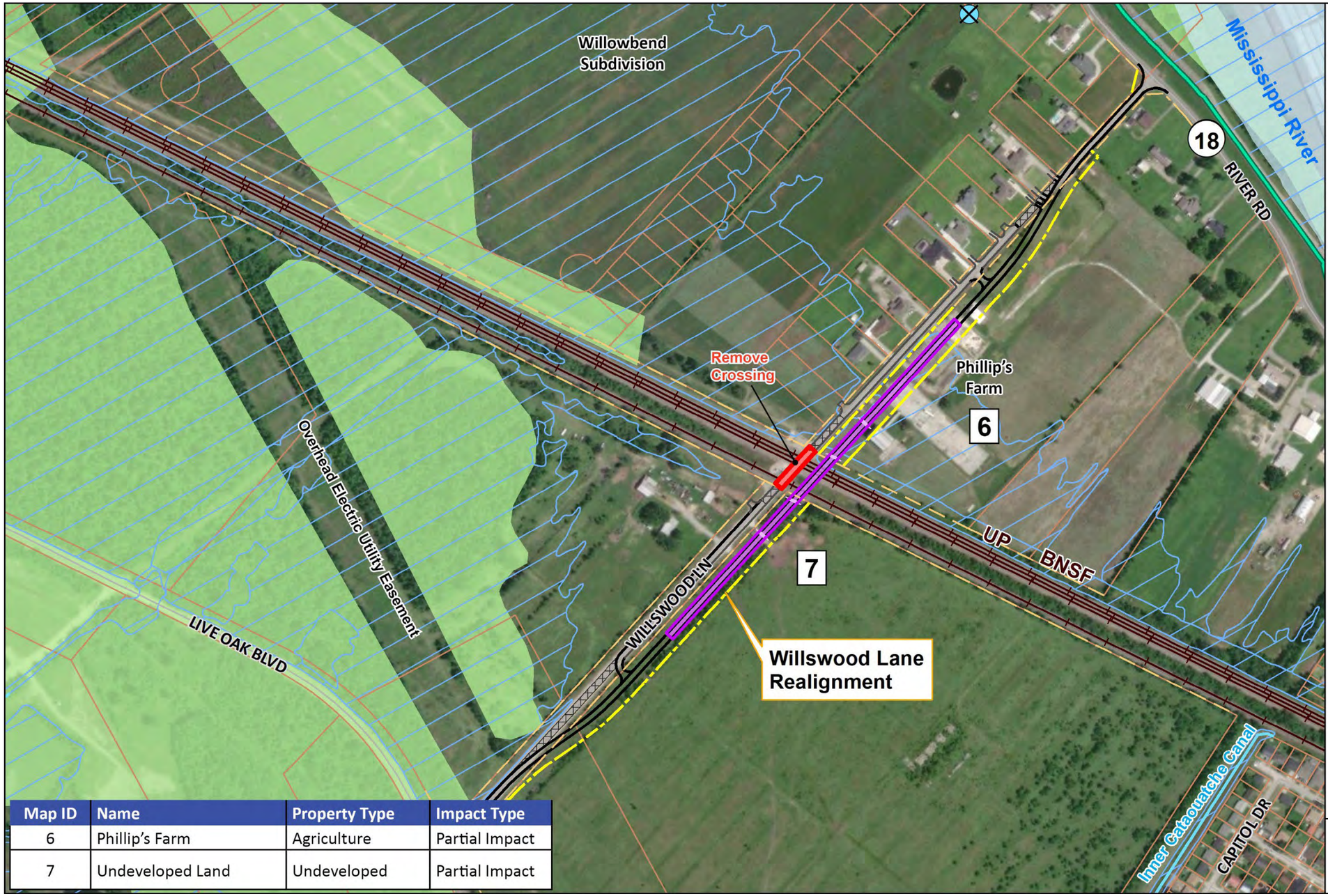
Exhibit 3-4: Willswood Lane Realignment Relocations



Map ID	Name	Property Type	Impact Type
6	Phillip's Farm	Agriculture	Partial Impact
7	Undeveloped Land	Undeveloped	Partial Impact

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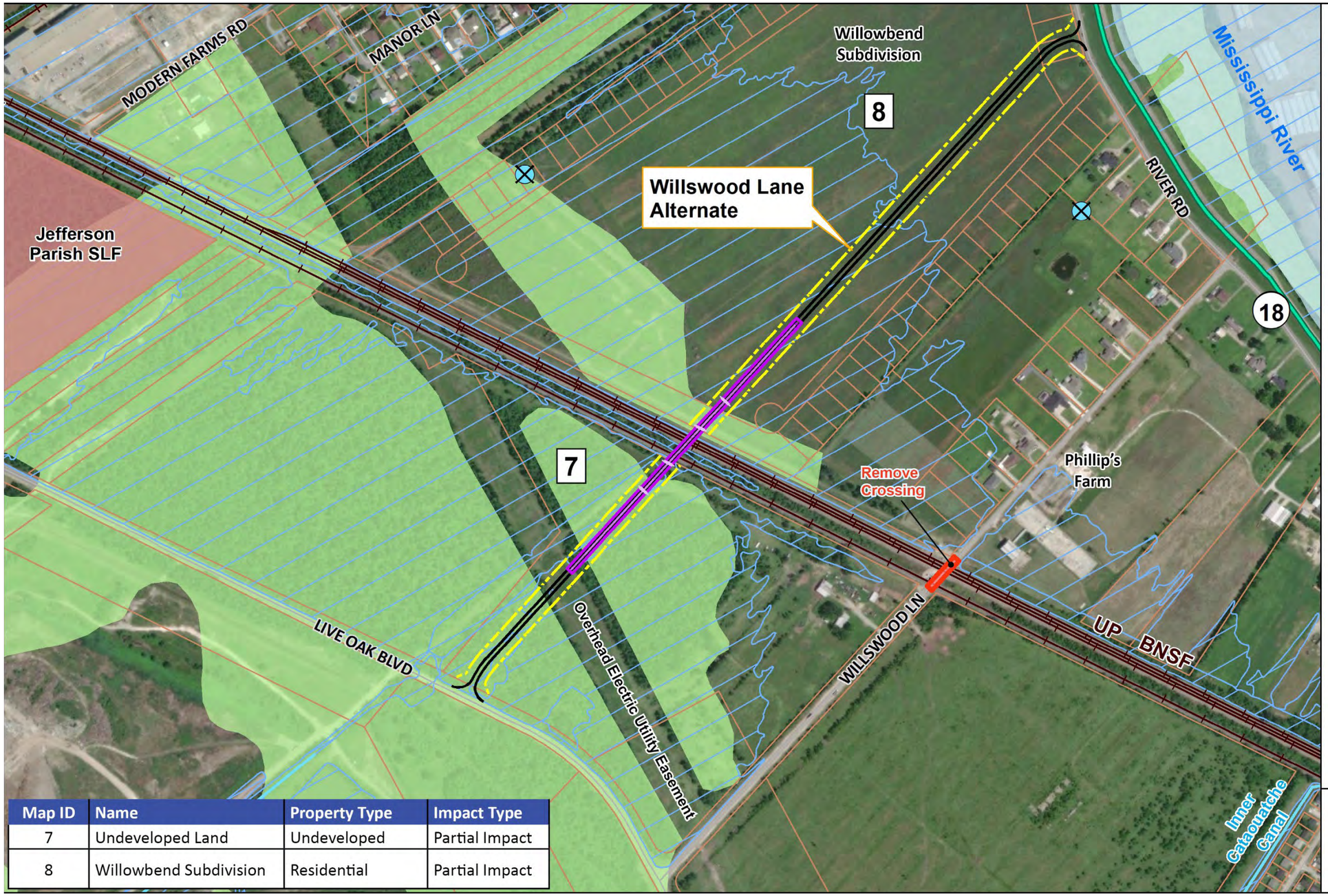
Exhibit 3-5: Willswood Lane Alternate Relocations



Map ID	Name	Property Type	Impact Type
7	Undeveloped Land	Undeveloped	Partial Impact
8	Willowbend Subdivision	Residential	Partial Impact

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3.1.4 Water Quality

Water Wells

Registered water wells were obtained from the SONRIS - Strategic Online Natural Resources Information System maintained by the Louisiana Department of Natural Resources (LADNR) website.

No-Action Alternative – No water well impacts would occur if the Project were not constructed.

Build Alternatives – No water wells would be impacted by the Avondale Garden Road Alternative, Willswood Lane Realignment, or Willswood Lane Alternate.

Sole Source Aquifers

Sole source aquifers are designated by the US Environmental Protection Agency (USEPA) under authorized by Section 1424(e) of the Safe Drinking Water Act of 1974 (Public Law 93-523, 42 U.S.C. 300 et. seq). The Study Area is not located within a sole source aquifer.

Scenic Rivers

There are no waters within the Study Area designated as Scenic Rivers by the Louisiana Department of Wildlife and Fisheries (LDWF).

3.1.5 Public Safety

No-Action Alternative

The No-Action Alternative would not result in any changes to existing conditions. It would not improve the safety of railroad crossings or delivery of emergency services. This alternative would not achieve the transportation improvements projected to result under the Build Alternatives.

Build Alternatives

The Avondale Garden Road Alternative, Willswood Lane Realignment, and Willswood Lane Alternate would each facilitate transportation safety and reliability by eliminating conflicts between vehicles and trains; improving traffic and delivery of emergency services.

3.2 Resources Requiring Further Environmental Review

3.2.1 Cultural Resources

Section 106 of the National Historic Preservation Act of 1966 (NHPA) (36 CFR §800) requires federal agencies to consider the effects on historic properties of projects they carry out, assist, fund, permit, license, or approve throughout the country. A Section 106 review is required when a federal or federally assisted project has the potential to affect historic properties. Federal guidelines also require coordination with the State Historic Preservation Office (SHPO) to determine the direct area of potential effect (APE) for archaeological investigations and the direct and indirect APEs for historic resources investigations for project impact per 36 CFR §800.4(a) and 36 CFR §800.16(d).

Historic resource site files, National Register of Historic Places (NRHP) historic properties files, and regional cultural resources management reports located at the Louisiana Division of Archaeology (DA) and the Louisiana Division of Historic Preservation (DHP), were reviewed in July 2023 to identify all recorded historic districts, buildings, structures, or objects located within the Study Area, including properties listed in or determined to be eligible for listing in the National or State Registers of Historic Places, the Historic American

Buildings Survey (HABS), the Historic American Engineering Record (HAER), and Louisiana Historic Site inventories. No previously identified sites were within the Study Area.

No-Action Alternative – No historic or archaeological resource impacts would occur if the Project were not constructed.

Build Alternatives – The Avondale Garden Road Alternative, Willswood Lane Realignment, and Willswood Lane Alternate would not impact historic or archaeological resource based on the research and surveys to date.

Additional surveys would be conducted and research and documentation prepared, in coordination with the SHPO, within the Build Alternatives' direct and indirect historic resources and archaeology Areas of Potential Effect (APEs) to determine the presence of prehistoric and historic archaeological sites as well as any buildings, structures, districts, sites, or objects listed on or eligible for listing in the NRHP and comply with the cultural resources components of Section 106 of the National Historic Preservation Act of 1966 (NHPA) Section 4(f) of the US Department of Transportation (USDOT) Act of 1966.

3.2.2 Section 4(f) Resources

The Department of Transportation Act, Section 4(f) (23 USC §138 and 49 USC §303) governs the use of land from publicly owned parks, recreation areas, and wildlife and waterfowl refuges and publicly or privately owned significant historic sites (collectively, Section 4(f) properties) that may be affected by projects approved or funded by the U.S. Department of Transportation (USDOT) operating administrations, including the Federal Railroad Administration (FRA), and the Federal Highway Administration (FHWA).

Three (3) parks are located within the Study Area, Waggaman Playground, located at 516 Dandelion Drive, Kennedy Heights Playground, located at 248 Mission Court, and Thomas Jefferson Park, a Land and Water Conservation Fund Act (LWCF) Section 6(f) resource, located at 9100 River Road, all in Waggaman, LA 70094. These three (3) parks would not be impacted by the Avondale Garden Road Alternative, Willswood Lane Realignment, or the Willswood Lane Alternate.

A historic resource in or eligible for the NRHP qualifies for protection under Section 4(f) and a use may occur if land from the resource is permanently or temporarily incorporated into the project. If a project does not physically take (i.e., permanently incorporate) historic property but causes an adverse effect, proximity impacts must be evaluated if they will substantially impair the features or attributes that contribute to the NRHP eligibility of the historic resource. As stated in Section 3.2.1, historic resources surveys and research would be conducted and documentation prepared prior to NEPA completion, in coordination with the SHPO, to determine the presence of any historic resources listed in or eligible for listing in the NRHP.

3.2.3 Noise

A Noise Assessment has not yet been completed. Prior to NEPA completion, a Noise Assessment of the Build Alternatives would be performed in accordance with the DOTD Highway Traffic Noise Policy (July 2011).

3.2.4 Hazardous Materials and Waste

A GeoSearch® database report of known hazardous materials sites, Sanborn maps, and historic aerial photography were acquired in 2011 as part of the NORG Program. The GeoSearch® data was supplemented with an April 2022 search of available regulatory databases from the EPA Online Portal (www.epa.gov) to verify known hazardous locations within the Study Area (Landfills, Superfund Sites, Underground Storage Tanks [UST], and Regulated Facilities).

No-Action Alternative – No hazardous materials or waste site impacts would occur if the Project were not constructed.

Build Alternatives – The Avondale Garden Road Alternative, Willswood Lane Realignment, and Willswood Lane Alternate would not impact hazardous materials or waste sites based on the research to date.

A Phase I Environmental Site Assessment (ESA) screening following ASTM E1527-21 guidance would be prepared prior to NEPA completion, but the assessment would be limited to hazardous materials as other environmental considerations would be discussed in other study documents.

3.2.5 Communities and Environmental Justice

Community Facilities

Community facilities within the Study Area include the Live Oak Library, Thomas Jefferson Park, Live Oak Manor Volunteer Fire Station, Waggaman Playground, Kennedy Heights Playground, Lucille Cherbonnier Elementary School, Little Zion Missionary Baptist Church, Second Saint John Baptist Church, Mount Herman Baptist Church, George Edmond Activity Center, James C. Simmons Community Center, Restlawn Park Cemetery and Mausoleum, Holy Angels Cemetery and the future Avondale Public Library (see Exhibit 3-6). The Avondale Garden Road Alternative would potentially impact the parking and access to the future Avondale Public Library, which is currently under construction. The Willswood Lane Realignment and Willswood Lane Alternate would not impact these facilities.

Louisiana laws governing real property acquisition are fashioned after the Uniform Relocation and Real Property Acquisition Act of 1970 as amended (Uniform Act). Additionally, the Project will need to comply with the federal requirements in the Uniform Act.

Limited English Proficiency

Executive Order 13166 – *Improving Access to Services for Persons with Limited English Proficiency (LEP*) requires federal agencies to work to ensure that recipients of federal financial assistance provide meaningful access to their LEP applicants and beneficiaries. Failure to ensure that LEP persons can effectively participate in or benefit from federally assisted programs and activities may violate the provision under Title VI of the Civil Rights Restoration Act of 1987 and Title VI regulations against national origin discrimination.

A Limited English Proficiency analysis was prepared using U.S. Census Bureau data from the 2018-2022 American Community Survey (ACS) 5-Year Estimates database (see Appendix G). The Study Area encompasses eight Census Block Groups within Jefferson Parish, Louisiana: Census Tract (CT) 275.01, Block Groups (BG) 1, 2, 3, and 4; CT 275.02, BGs 1 and 2; CT 276.01, BG 1; and CT 282, BG 2 (see Exhibit 3-6 and Appendix G). Table 3-2 displays population data for these Block Groups, comparing the respective limited English proficiency population percentages to that of the Jefferson Parish and the State of Louisiana.

Table 3-2: Limited English Proficiency Populations

Limited English Proficiency						
	CT 275.01 BG 1	CT 275.01 BG 2	CT 275.01 BG 3	CT 275.01 BG 4	Jefferson Parish	State of Louisiana
Population 5 years and Older	976	1,657	1,279	2,214	408,827	4,350,704
Speaks English Well, Not Well, or Not at All	0	0	122	92	34,526	120,100
% Speaks English Well, Not Well, or Not at All	0.00%	0.00%	9.50%	4.20%	8.40%	2.80%

Source: U.S. Census Bureau, 2018-2022 American Community Survey (ACS) 5-Year Estimates, Table B16004. ACS data was accessed and reviewed on July 10, 2024 via the U.S. Census Bureau website (https://data.census.gov).

Table 3-2 (cont'd): Limited English Proficiency Populations

Limited English Proficiency						
	CT 275.02 BG 1	CT 275.02 BG 2	CT 276.01 BG 1	CT 282 BG 2	Jefferson Parish	State of Louisiana
Population 5 years and Older	2,563	1,790	1,392	918	408,827	4,350,704
Speaks English Well, Not Well, or Not at All	53	0	0	42	34,526	120,100
% Speaks English Well, Not Well, or Not at All	2.10%	0.00%	0.00%	4.60%	8.40%	2.80%

Source: U.S. Census Bureau, 2018-2022 American Community Survey (ACS) 5-Year Estimates, Table B16004. ACS data was accessed and reviewed on July 10, 2024 via the U.S. Census Bureau website (https://data.census.gov).

The CT 275.01, BG 3 limited English proficiency population exceeds five percent (5%) of the eligible population and is more than 50 in number, and is therefore, an eligible LEP language group. Overall, approximately 154,935 individuals (3.20%) across the eight listed Block Groups are considered LEP. The LEP Language group is Spanish. Reasonable steps were taken to ensure meaningful participation by LEP individuals in the extended March 9, 2022 through April 15, 2022 Virtual Public Scoping Meeting and the April 16, 2024 Alternatives Public Meeting (see Section 4.5.3). There were no Spanish language assistance requests to participate in this meeting.

Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994), and US Department of Transportation (USDOT) Order 5610.2(c) (May 16, 2021), requires USDOT agencies to consider how federally assisted projects may have disproportionately high and adverse human health or environmental effects on minority and low-income populations. USDOT Order 5610.2(c) defines minority and low-income populations as follows:

- Minority Population means any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy, or activity.
- Low-Income Population means any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy, or activity.

An Environmental Justice analysis was conducted for the Study Area using U.S. Census Bureau data from the 2018-2022 American Community Survey (ACS) 5-Year Estimates database (see Appendix G. The Study Area encompasses eight Census Block Groups within Jefferson Parish, Louisiana: Census Tract (CT) 275.01, Block Groups (BG) 1, 2, 3, and 4; CT 275.02, BGs 1 and 2; CT 276.01, BG 1; and CT 282, BG 2 (see Exhibit 3-6 and Appendix G Exhibit G-1). Table 3-3 displays population data for these Block Groups, comparing the respective minority and low-income population percentages to that of the Jefferson Parish and the State of Louisiana.

Table 3-3: Minority and Low-Income Populations

Minority Populations						
	CT 275.01 BG 1	CT 275.01 BG 2	CT 275.01 BG 3	CT 275.01 BG 4	Jefferson Parish	State of Louisiana
Total Population	976	1,891	1,279	2,361	436,171	4,640,546
Total Minority Population	439	1,132	843	1,847	214,825	1,971,380
% Minority / Non-White	44.98%	59.86%	65.91%	78.23%	49.25%	42.48%
Low-Income Populations						
	CT 275.01 BG 1	CT 275.01 BG 2	CT 275.01 BG 3	CT 275.01 BG 4	Jefferson Parish	State of Louisiana
Total Population	976	1,891	1,279	2,361	432,591	4,513,793
Total Low-Income Population	0	744	0	914	66,951	842,038
% Low-Income / Below Poverty Line	0.00%	39.34%	0.00%	38.71%	15.48%	18.65%

Source: U.S. Census Bureau, 2018-2022 American Community Survey (ACS) 5-Year Estimates, Tables B03002 and C17002. ACS data was accessed and reviewed on July 10, 2024 via the U.S. Census Bureau website (https://data.census.gov).

Table 3-3 (cont'd): Minority and Low-Income Populations

Minority Populations						
	CT 275.02 BG 1	CT 275.02 BG 2	CT 276.01 BG 1	CT 282 BG 2	Jefferson Parish	State of Louisiana
Total Population	2,601	1,790	1,445	999	436,171	4,640,546
Total Minority Population	2,572	1,790	260	636	214,825	1,971,380
% Minority / Non-White	98.89%	100.00%	17.99%	63.66%	49.25%	42.48%
Low-Income Populations						
	CT 275.02 BG 1	CT 275.02 BG 2	CT 276.01 BG 1	CT 282 BG 2	Jefferson Parish	State of Louisiana
Total Population	2,593	1,790	1,445	891	432,591	4,513,793
Total Low-Income Population	826	417	42	94	66,951	842,038
% Low-Income / Below Poverty Line	31.85%	23.30%	2.91%	10.55%	15.48%	18.65%

Source: U.S. Census Bureau, 2018-2022 American Community Survey (ACS) 5-Year Estimates, Tables B03002 and C17002. ACS data was accessed and reviewed on July 10, 2024 via the U.S. Census Bureau website (https://data.census.gov).

The CT 275.01, BGs 2, 3, and 4; CT 275.02, BGs 1 and 2; and CT 282, BG 2 minority population percentages and the CT 275.01, BGs 2 and 4; and CT 275.02, BGs 1 and 2 low-income population percentages are greater than the respective Jefferson Parish percentages.

No-Action Alternative – No environmental justice populations would be impacted if the Project were not constructed.

Avondale Garden Road Alternative – This alternative includes four (4) census block groups (see Exhibit 3-6):

- CT 275.01, BG 3
- CT 275.02 BG 1
- CT 276.01 BG 1
- CT 282 BG 2

Three census block groups (CT 275.01, BG 3; CT 275.02, BG 1 and CT 282, BG 2) contain minority population percentages that exceed the Jefferson Parish minority population percentage. One census block group (CT 275.02, BG 1) contains a low-income population percentage that exceed the Jefferson Parish low-income population percentage.

Willswood Lane Realignment and Willswood Lane Alternate – These alternatives include two (2) census block groups (see Exhibit 3-6):

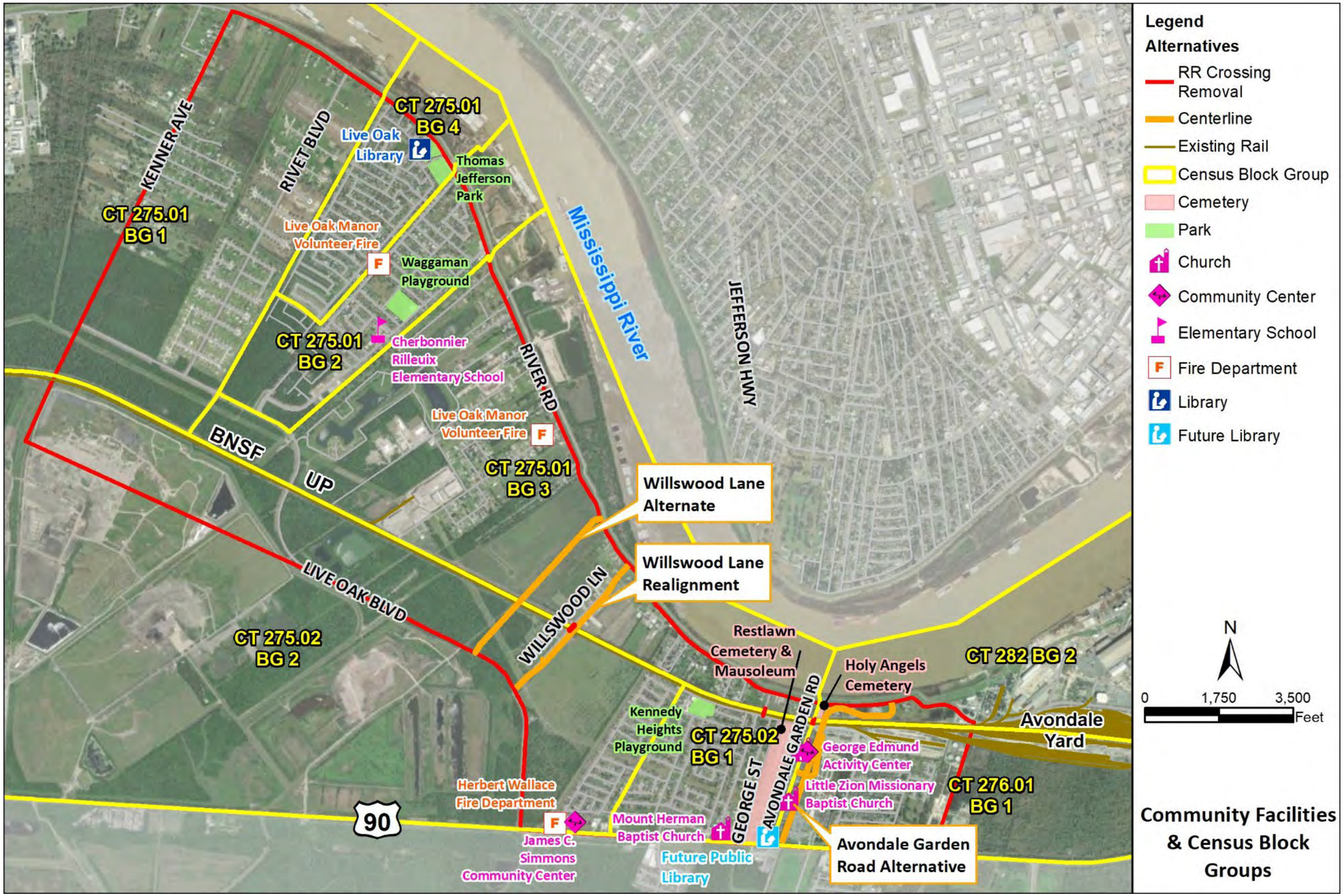
- CT 275.01, BG 3
- CT 275.02, BG 2

Two census block groups (CT 275.01, BG 3 and CT 275.02, BG 2) contain minority population percentages that exceed the Jefferson Parish minority population percentage. One census block group (CT 275.02, BG 2) contains a low-income population percentage that exceed the Jefferson Parish low-income population percentage.

Some adverse impacts will occur based on ROW acquisition, displacements, and temporary construction impacts; however, these impacts will similarly affect the general population. Further, the improvements associated with each alternative would be shared equally amongst all populations. The three alternatives would each require additional right-of-way. The Avondale Garden Road Alternative would require two business relocations (see Section 3.1.3). At this time, it is unknown whether the impacted businesses are minority owned or primarily employ minority individuals.

DOTD will comply with Title VI to ensure that “No person in the United States shall be, on the ground of race, color, or national origin, excluded from participation in, denied the benefits of, or subjected to discrimination under any program or activity receiving Federal financial assistance.”

Exhibit 3-6: Community Facilities and Census Block Groups



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3.2.6 Waters of the US

Wetlands

Executive Order 11990, Protection of Wetlands, requires Federal agencies to avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative.

A review of US Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) data indicates large areas of Palustrine Forested (PFO) wetlands within the south and southwest portions of the Study Area (see Appendix H).

Section 404 of the Clean Water Act establishes a Federal program to regulate the discharge of dredge and fill material into waters of the United States. The US Army Corps of Engineers (USACE) has primary regulatory authority for issuing permits and enforcing Section 404 requirements.

Streams

There are no streams, but the Inner Cataouatche Canal and numerous named drainage ditches are within the Study Area.

No-Action Alternative – No wetland impacts would occur if the Project were not constructed.

Build Alternatives – The Avondale Garden Road Alternative and Willswood Lane Realignment would not impact any NWI wetlands. The Willswood Lane Alternate impacts a NWI wetland where it connects to Live Oak Boulevard and bridges two additional NWI wetlands, but there would be some impacts from the bridge substructure. The Avondale Garden Road Alternative would impact the Avondale Homes Canal North. The Willswood Lane Realignment and Willswood Lane Alternate would not impact the Inner Cataouatche Canal or any of the named drainage ditches.

Field investigations would be conducted to delineate wetlands within each Build Alternative's project limits and a proposed jurisdictional determination prepared prior to NEPA completion. The USACE will make the final jurisdictional determination for waters of the United States.

3.2.7 Floodplains

Executive Order 11988, Floodplain Management, requires Federal agencies to avoid to the extent possible, the long and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative.

The Federal Emergency Management Agency (FEMA) issues Flood Insurance Rate Maps as a part of the National Flood Insurance Program which designate the Special Flood Hazard Area in land areas covered by the floodwaters of the 1 percent annual chance flood, or "100-year" flood. The Study Area contains areas within designated 100-year floodplains ranging from lower risk (X zones) to higher risk (AE zones). The Study Area is located on Flood Insurance Rate Maps (FIRM) in Jefferson Parish, Panels 160, 175, 180 and 190 of 600, Map #s 22051C0160F, 22051C0175F, 22051C0180F, and 22051C0190F are included in Appendix I.

No-Action Alternative – No floodplain impacts would occur if the Project were not constructed.

Build Alternatives – The Build Alternatives are all within FIRM Panel 190 of 600, Map # 22051C0190F. Portions of the Avondale Garden Road Alternative and Willswood Lane Alternate would be constructed and operated within the 100-year floodplain. Potential impacts to floodplains include filling, grading, new bridges and culverts, and other activities. The Avondale Garden Road Alternative impacts 1.8 acres of 100-year floodplain. The Willswood Lane Realignment impacts 1.3 acres of 100-year floodplain. The Willswood Lane Alternate would impact 5.9 acres of 100-year floodplain.

Impacts to the 100-year floodplain typically require coordination and approval from the local floodplain administrator and FEMA. The local entities with review and/or approval authority include Jefferson Parish and FEMA. During the permitting process, the floodplain administrators would be contacted for the review and possible permit requirements for the Project.

3.2.8 Coastal Zones

The Coastal Zone Management Act, as amended (Public Law 109-58), established a voluntary national program within the U.S. Department of Commerce to encourage States to develop and implement coastal zone management plans. State plans require defined boundaries of the coastal zone, identify uses of the area regulated by the State, the mechanism for controlling such uses, and broad guidelines for priorities of uses within the coastal zone.

The Louisiana State and Local Coastal Resources Management Act (Act 361) authorized the Louisiana Department of Natural Resources, Coastal Management Program, and the development, at the parish level, of local coastal zone management (CZM) programs. The Jefferson Parish's CZM, approved by the State on January 4, 1985, is consistent with the state guidelines and with the policies and objectives of Act 361.

The entire Study Area lies within the Louisiana Coastal Zone Boundary as established in Louisiana Revised Statutes Article 49, §214.24 (see Appendix J). Coordination with the Louisiana Department of Natural Resources, Office of Coastal Management (OCM) and Jefferson Parish would occur prior to NEPA completion.

3.2.9 Listed Species

The Study Area was initially entered into the USFWS Information for Planning and Consultation (IPaC) system. The resultant IPaC resource list identified two species, the threatened West Indian Manatee (*Trichechus manatus*) and the Pallid Sturgeon (*Scaphirhynchus albus*) but indicated that the critical habit for these species lies outside the Study Area. The IPaC resource list also identified numerous bird species that are Birds of Conservation Concern (BCC), indicating, by month, the probability of presence and breeding season for each species, and noting that certain birds are protected under the Migratory Bird Treaty Act (16 USC 703-712) and the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d). The August 2, 2021 USFWS initial IPaC resource list is included in Appendix K.

The Study Area will need to be formally reentered into IPaC, consultation conducted, and if necessary, biological assessments performed prior to completion of NEPA.

3.2.10 Significant Trees

A significant tree survey has not yet been completed. Prior to NEPA completion, a significant tree survey of the Build Alternatives would be performed in accordance with DOTD Engineering Directives and Standards Manual (EDSM) I.1.1.21.

3.2.11 Southeast Louisiana Flood Protection Authority – West Permit

A Southeast Louisiana Flood Protection Authority – West (SLFPA-West) permit is required for any levee crossing, construction that includes excavation within 300 feet of any levee/floodwall, or construction involving major excavation within 1,500 feet of any Mississippi River levee under SLFPA–West jurisdiction.

No-Action Alternative – A permit would not be required if the Project were not constructed.

Build Alternatives – The Avondale Garden Road Alternative, Willswood Lane Realignment, and Willswood Lane Alternate would all require a SLFPA-West permit because drilling of soil borings and driving of foundation piles would occur within 1,500 feet of the levee.

3.3 Resources Not Requiring Further Environmental Review

The following resources would not require further environmental review because the resources are not present within the Study Area or would not be impacted by construction of the Project.

3.3.1 Section 6(f) Resources

The Land and Water Conservation Fund Act (LWCFA), Section 6(f)(3) (Public Law 88-578, 78 Stat 897) prohibits the conversion of property acquired or developed with grants from this fund to a non-recreational purpose without the approval of the National Park Service. The Study Area does not contain any recreation areas, wildlife and waterfowl refuges or properties improved with Land and Water Conservation Fund Act funds.

Thomas Jefferson Park, a LWCFA Section 6(f) resource, located at 9100 River Road, Waggaman, LA 70094 would not be impacted by the Avondale Garden Road Alternative, Willswood Lane Realignment, or Willswood Lane Alternate.

3.3.2 Air Quality

Jefferson Parish is in attainment for all NAAQS pollutants. The Project is exempt from highway emissions analyses because the traffic volumes are below 140,000 daily vehicles (40 CFR §93.126).

3.3.3 Navigable Waterways

The US Army Corps of Engineers (USACE) makes navigability determinations regarding specific waterways or portions of waterways to determine its jurisdiction over those waterways (330 CFR §329.14(b)). The Build Alternatives do not cross any watercourses. Therefore, a navigable waterways determination coordinated with the USACE and US Coast Guard is not required.

3.3.4 Important Farmlands

The Project is exempt from the requirements of the 1981 Farmland Protection Policy Act (FPPA) (7 USC §4201 and 7 CFR Ch. VI §658). Activities not subject to the Provisions of the FPPA include projects on land already in urban development or used for water storage (7 USC §523.11.C(iv)). The Study Area is already developed and lies within a US Census-designated Urbanized Area (see Appendix L).

3.4 DOTD Stage 0 Checklists

The DOTD Stage 0 Environmental and Preliminary Scope and Budget Checklists are included in Appendix M.

4. PUBLIC INVOLVEMENT, AGENCY AND TRIBAL COORDINATION

Coordination and consultation with local officials, agencies, stakeholder groups and the public were initiated early in the project development process to incorporate local officials, agency and public comments and concerns into the development and analysis of the Project's purpose and need, alternatives, and potential environmental impacts.

4.1 Solicitation of Views

The Study Team, on behalf of the DOTD, requested federal, state, and local officials and agency views early in the project planning stages through the DOTD's Solicitation of Views (SOV) process. The purpose of this process was to inform interested persons and agencies of the proposed study and allow time to receive early comment. The distribution was comprised of the Statewide and Jefferson Parish SOV distribution lists maintain by the DOTD as having potential interest in the project. The August 9, 2021 SOV letter, distribution list, and responses received are included in Appendix N.

4.2 Scoping Process

The objective of the scoping process is to identify environmental, socioeconomic, engineering, or other issues that should be considered during the Study. Local officials, federal and state resource agencies, and the public were invited to participate in scoping meetings. These meetings provided an opportunity for participants to gain an understanding of the Study Process, discuss project benefits and concerns and identify key issues to be considered during alternatives development. Early identification of environmental concerns was emphasized to maximize the ability to avoid and minimize impacts to these resources.

4.2.1 Local Officials Scoping Meeting

DOTD, with Study Team assistance, held a March 8, 2022 virtual local officials scoping meeting to present the Project, the study process, goals, schedule, and stakeholder outreach; discuss issues, concerns, and information relevant to the study and solicit specific issues of concern early in the study process. The meeting invitation letter and meeting summary are included in Appendix O.

4.2.2 Agency Scoping Meeting

Thirty-two regulatory and resource agencies were invited to participate in a March 9, 2022 virtual agency scoping meeting. No regulatory or resource agency invitees responded to the virtual meeting invitation. The meeting invitation letter and brief meeting summary are included in Appendix O.

4.2.3 Public Scoping Meeting

Due to COVID-19 pandemic safety protocols enacted at that time, DOTD hosted an extended virtual public scoping meeting from March 9, 2022 through April 15, 2022 via the DOTD Avondale PEL Study webpage. The virtual public scoping meeting was advertised in local newspapers, in press releases and public service announcements (PSAs) distributed to local media outlets, on door hangers placed on study area residences and businesses, in DOTD MyDOTD email announcements, and on the NORG Program webpage. The technical presentation, exhibits, and a comment form were posted on the DOTD NORG Program webpage for access via personal computer, cell phone or tablet. Individuals could request to be added to the study mailing list directly from the webpage. The presentation with scripted narrative was available in both written (PDF) and audio (YouTube) formats. Those without Internet access could request hardcopies of the meeting materials.

The virtual public scoping meeting summary is available at www.dotd.la.gov/about/office-of-multimodal-commerce/rail/freight-and-passenger-rail/new-orleans-rail-gateway-program/avondale-planning-evaluation-linkages-study-documents/.

4.3 Travel Surveys

Fifty (50) travel surveys were prepared and sent to the sheriff, local fire departments and schools, and trucking companies and intermodal/container yards soliciting information about their travel patterns through the Study Area and any issues/concerns they may have with the Project. The March 8, 2022 travel survey, distribution and five responses are included in Appendix P.

4.4 Neighborhood Association Meetings

DOTD was invited to brief several area civic associations about the study status. Meetings were held on the following dates. The meeting summaries are included in Appendix Q.

- April 6, 2022 – Waggaman Civic Association
- April 20, 2022 – S1 Civic Association
- May 4, 2022 – Kennedy Heights Civic Association
- April 4, 2023 – Waggaman Civic Association
- April 19, 2023 – S1 Civic Association

4.5 Alternatives Meetings

The objective of the alternatives meetings was to present the alternatives development process and the Build Alternatives developed. Local officials, federal and state resource agencies, and the public were invited to participate. These meetings provided an opportunity for participants to gain an understanding of the roadway and railroad traffic volumes, conditions warranting grade separation consideration, the Study Area's environmental features and alternatives combinations and costs.

4.5.1 Local Officials Alternatives Meeting

DOTD, with Study Team assistance, held an April 16, 2024, local officials' alternatives meeting to present the alternatives development process, the Build Alternatives developed, goals, schedule, stakeholder outreach, and solicit comments. The meeting invitation letter and meeting summary are included in Appendix R.

4.5.2 Agency Alternatives Meeting

DOTD, with Study Team assistance, held an April 11, 2024, agency's alternatives meeting to present the alternatives development process, the Build Alternatives developed, goals, schedule, stakeholder outreach, and solicit comments. The meeting invitation letter and meeting summary are included in Appendix R.

4.5.3 Public Alternatives Meeting

DOTD, with Study Team assistance, held an April 16, 2024, public alternatives meeting at the J.C. Simmons Community Center, 4008 U.S. Highway 90, Westwego, LA, to present the alternatives development process, the Build Alternatives developed, goals, schedule, stakeholder outreach, and solicit comments. The public alternatives meeting was advertised in local newspapers, in press releases and public service announcements (PSAs) distributed to local media outlets, on door hangers placed on study area residences and businesses, in DOTD MyDOTD email announcements, and on the NORG Program webpage. The

technical presentation, exhibits, and a comment form were also posted on the DOTD NORG Program webpage for access via personal computer, cell phone or tablet. Individuals could request to be added to the study mailing list directly from the webpage. The presentation with scripted narrative was available in both written (PDF) and audio (YouTube) formats. Those without Internet access could request hardcopies of the meeting materials.

The public alternatives meeting summary is available at www.dotd.la.gov/about/office-of-multimodal-commerce/rail/freight-and-passenger-rail/new-orleans-rail-gateway-program/avondale-planning-evaluation-linkages-study-documents/.

4.6 Railroad and Jefferson Parish Coordination

DOTD and the Study Team continually coordinated with UPRR throughout the study. The Study Team obtained design requirements for developing road-over-rail grade separation alternatives. UPRR indicated their initial agreement with the grade separations developed and indicated that grade separating the Avondale Garden Road crossing should be the highest priority. UPRR correspondence on the grade separation alternatives developed are included in Appendix D.

DOTD and the Study Team also continually coordinated with the Jefferson Parish Department of Public Works for the development and review of the roadway/pedestrian/bicycle grade separations.

4.7 Native American Tribes Coordination

Early planning-level National Historic Preservation Act (NHPA) Section 106 coordination with the Native American tribes with ancestral interest and ties to the Study Area was conducted by DOTD and FHWA. On June 16, 2025, the FHWA sent a letter describing the objectives of the project, including exhibits of the Study Area and Build Alternatives, to the Alabama Coushatta Tribe of Texas, Chitimacha Tribe of Louisiana, Choctaw Nation of Oklahoma, Coushatta Tribe of Louisiana, Jena Band of Choctaw Indians, Mississippi Band of Choctaw Indians, Muscogee (Creek) Nation, Seminole Nation of Oklahoma, and the Tunica-Biloxi Tribe of Louisiana.

The Choctaw Nation of Oklahoma responded on July 19, 2025, requesting GPS coordinates for the proposed project locations. The FHWA provided the requested GPS coordinates on July 29, 2025. There was no further Choctaw Nation of Oklahoma response nor responses from any of the other tribes as of August 6, 2025. The Native American tribe's coordination correspondence is on file with the DOTD Environmental Section. Additional coordination would occur when NEPA and NHPA Section 106 are initiated.

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5. FHWA PLANNING AND ENVIRONMENTAL LINKAGES (PEL) QUESTIONNAIRE

This questionnaire is intended to act as a summary of the Planning process and ease the transition from planning to a NEPA analysis. Often, there is no overlap in personnel between the planning and NEPA phases of a project, so consequently much (or all) of the history of decisions made in the planning phase is lost. Different planning processes take projects through analysis at different levels of detail. NEPA project teams may not be aware of relevant planning information and may re-do work that has already been done. This questionnaire is consistent with the 23 CFR 450 (Planning regulations) and other FHWA policy on Planning and Environmental Linkage (PEL) process.

The PEL study is used in this questionnaire as a generic term to mean any type of planning study conducted at the corridor or subarea level which is more focused than studies at the regional or system planning levels. Many states may use other terminology to define studies of this type and those are considered to have the same meaning as a PEL study.

At the inception of the PEL study, the study team should decide how the work may later be incorporated into subsequent NEPA efforts. A key consideration is whether the PEL study will meet standards established by NEPA regulations and guidance. One example is the use of terminology consistent with NEPA vocabulary (e.g. purpose and need, alternatives, affected environment, environmental consequences).

FHWA will use this questionnaire to assist it in determining if the study meets the requirements of 23 CFR §§ 450.212 or 450.318.

1. Background:

a) Who is the sponsor of the PEL study? (state DOT, Local Agency, Other)

The PEL study sponsor is the DOTD Office of Multimodal Commerce. A list of the agencies involved is included in the ***Introduction*** *and* ***Appendix M: Stage 0 Preliminary Scope and Budget Checklist****, Section A.*

b) What is the name of the PEL study document and other identifying project information (e.g. sub-account or STIP numbers, long-range plan, or transportation improvement program years)?

Avondale Planning and Environmental Linkages Stage 0 Report, State Project No. H.005168.

c) Who was included on the study team (Name and title of agency representatives, consultants, etc.)?

A list of the Project Team agencies and members is included in ***Section 6: Project Team****. Also see* ***Appendix M: Stage 0 Preliminary Scope and Budget Checklist*** *Section A.*

d) Provide a description of the existing transportation facility within the corridor, including project limits, modes, functional classification, number of lanes, shoulder width, access control and type of surrounding environment (urban vs. rural, residential vs. commercial, etc.)

Roadway	*Limits*	*Modes*	*Functional Classification*	*Number of Lanes*	*Should Widths*	*Access Control*	*Surrounding Environment*
Avondale Garden Road	*US 90 to River Rd (LA 18)*	*Vehicle*	*Minor Urban Collector*	*2*	*None*	*None*	*Suburban Residential; Production, Distribution, and Repair; Rural*
George St	*US 90 to River Rd (LA 18)*	*Vehicle*	*Local Road*	*2*	*None*	*None*	*Commercial; Suburban Residential, Rural*
Willswood Ln	*Live Oak Blvd to River Rd (LA 18)*	*Vehicle*	*Local Road*	*2*	*None*	*None*	*Commercial; Rural*
Live Oak Blvd	*US 90 to Kenner Ave*	*Vehicle*	*Minor Urban Collector*	*2*	*None*	*None*	*Production, Distribution, and Repair; Rural*

Also see *Appendix M: Stage 0 Preliminary Scope and Budget Checklist, Section A.*

e) Provide a brief chronology of the planning activities (PEL study) including the year(s) the studies were completed.

Technical Assessments	*Year Completed*
IPaC Species & Habitat List	*2021*
Rail Operations Analysis	*2021*
Preliminary Purpose and Need	*2023*
Roadway Alternatives	*2024*
Traffic Engineering Process and Report (TEPR)	*2025*

f) Are there recent, current, or near future planning studies or projects in the vicinity? What is the relationship of this project to those studies/projects?

A list of the recent, current, or near future planning studies or projects *is included in* ***Section 2.2: No-Action Alternative*** *and* ***Appendix M: Stage 0 Preliminary Scope and Budget Checklist, Section A****, and is as follows:*

DOTD is completing improvements to the US 90 intersection with Avondale Garden Road and is conducting a Stage 0 study to make intersection improvements to accommodate pedestrian crossing (ADA, Pedestrian heads, etc.). The study is in its early stages. The study area is to the south of and overlaps a portion of the Avondale PEL Study Area.

Jefferson Parish is extending Latigue Road to Live Oak Boulevard to accommodate large trucks accessing area businesses, primarily Metals USA. The Latigue Road extension and Foundry Road will become designated truck routes and the truck route designation will be removed from the residential streets of Latigue Road and Modern Farms Road. The improvements are within the Avondale PEL Study Area.

A Westbank Transportation Road & Rail Subarea Analysis Stage 0 Feasibility Study (RPC, 2022) evaluated the relative feasibility of a series of improvements to improve road and rail access in the Avondale-Nine Mile Point-Westwego area. The study area is to the east of and overlaps a portion of the Avondale PEL Study Area.

2. Methodology:

a) What was the scope of the PEL study and the reason for completing it?

*The scope of the PEL study is included in **Section 1: Purpose and Need** and **Appendix M: Stage 0 Preliminary Scope and Budget Checklist, Section B.***

b) Did you use NEPA-like language? Why or why not?

The PEL study used NEPA-like language and was prepared in format and content consistent with similar FRA documents prepared for the NORG Program. The majority of the PEL document was prepared prior to FRA and FHWA deciding that FHWA would be the Federal Lead, instead of FRA, when this study advances to NEPA.

c) What were the actual terms used and how did you define them? (Provide examples or list)

Purpose and Need – the purpose discusses the problem the project is intended to address; the need includes the data substantiating that a problem currently exists or is likely to occur. The purpose and need is the starting point for developing any necessary alternatives.

Alternatives – reasonable and representational improvement options, including the no-build option. The alternatives developed were reviewed by DOTDs Road Design and Traffic Engineering/Design Development Sections.

Agency Coordination – initial correspondence submitted to Federal and state agencies to inform the agencies of the PEL study and to collect information and solicit agency comment.

Public and Neighborhood Association Meetings – meetings held within the Study Area providing project information and soliciting public input. The meetings were operated according to DOTD's Public Involvement Procedures.

d) How do you see these terms being used in NEPA documents?

Purpose and Need – considered adequate but may be updated during NEPA.

Alternatives – would be considered as Alternatives for consideration in NEPA

Agency Coordination – correspondence received would be considered in NEPA. A second Solicitation of Views would be sent to agencies in the early stages of NEPA.

Public Meetings – applicable public input from meetings held in the planning stage would be considered throughout the NEPA stage. Additional Public Meetings and, if requested, a Public Hearing would be held in accordance with DOTD's Public Involvement Procedures.

e) What were the key steps and coordination points in the PEL decision-making process? Who were the decision-makers and who else participated in those key steps? For example, for the corridor vision, the decision was made by state DOT and the local agency, with buy-in from FHWA, the USACE, and USFWS and other resource/regulatory agencies.

The key coordination points provided in the PEL study were 1) concurrence on the rail operation analyses, 2) the FHWA highway-rail crossing warrant analysis, 3) the alternatives development, 4) the alternatives screening, and 5) the alternatives recommended to be carried forward into NEPA analyses.

*Decision-makers were the Project Team (including representative members from DOTD and consultants), UPRR, BNSF and Jefferson Parish (see **Section 6: Project Team**). Resource/regulatory agency participation was requested, but most elected to not participate in the PEL study.*

f) How should the PEL information be presented in NEPA?

The PEL information would be presented in NEPA, documenting the Purpose and Need and Alternatives development. The alternatives recommended to be carried forward would be analyzed with a No-Build as the NEPA alternatives. The PEL document would be included as an appendix of the NEPA document.

3. Agency coordination:

Provide a synopsis of coordination with Federal, tribal, state and local environmental, regulatory and resource agencies. Describe their level of participation and how you coordinated with them.

*Agency coordination is included in **Section 4: Public Involvement, Agency and Tribal Coordination**, **Appendix M: Stage 0 Scope and Budget Checklist, Section C**, and **Appendices N: Solicitation of Views, O: Scoping Meetings**, and **R: Alternatives Meetings**.*

a) What transportation agencies (e.g. for adjacent jurisdictions) did you coordinate with or were involved during the PEL study?

*UPRR, BNSF, Jefferson Parish Public Works, and the RPC were involved in the study (see **Appendix D; Jefferson Parish and Railroad Coordination** and **Appendix M: Stage 0 Scope and Budget Checklist, Section C**).*

b) What steps will need to be taken with each agency during NEPA scoping?

A Solicitation of Views would be sent to agencies on DOTD's Statewide and Jefferson Parish mailing lists early in the NEPA process.

4. Public coordination:
Provide a synopsis of your coordination efforts with the public and stakeholders.

Public and Stakeholder Coordination	*Date(s)*
Solicitation of Views	*August 9, 2021*
Travel Survey	*March 8, 2022*
Local Officials Scoping Meeting	*March 8, 2022*
Agency Scoping Meeting	*March 9, 2022 Canceled (no agency invitation responses)*
Virtual Public Scoping Meeting	*March 9 through April 15, 2022*
Waggaman Civic Association Meetings	*April 6, 2022 & April 5, 2023*
Jefferson Parish Schools	*April 11, 2022*
S1 Civic Association Meetings	*April 20, 2022 & April 19, 2023*
Kennedy Heights Civic Association Meeting	*May 4, 2022*
Newsletters	*Summer 2022 & Fall 2024*
Agency Alternatives Meeting	*April 11, 2024*
Local Officials Alternatives Meeting	*April 16, 2024*
Public Alternatives Meeting	*April 16, 2024*
Planning Native American Tribes Consultation	*June 16, 2025*

Also see ***Section 4: Public Involvement, Agency and Tribal Coordination*** *and* ***Appendices N: Solicitation of Views, O: Scoping Meetings, P: Travel Surveys; Q: Civic Association Meetings,*** *and* ***R: Alternatives Meetings*** *for more information.*

5. Purpose and Need for the PEL study:
a) What was the scope of the PEL study and the reason for completing it?

The scope of the PEL study is included in ***Section 1: Purpose and Need*** *and* ***Appendix M: Stage 0 Scope and Budget Checklist, Section B****.*

b) Provide the purpose and need statement, or the corridor vision and transportation goals and objectives to realize that vision.

The Purpose and Need is included in ***Section 1: Purpose and Need*** *and* ***Appendix M: Stage 0 Scope and Budget Checklist, Section B****.*

c) What steps will need to be taken during the NEPA process to make this a project-level purpose and need statement?

No additional steps need taken. A comprehensive Purpose and Need was prepared (see ***Section 1: Purpose and Need****).*

6. Range of alternatives:
Planning teams need to be cautious during the alternative screening process; alternative screening should focus on purpose and need/corridor vision, fatal flaw analysis, and possibly mode selection. This may help minimize problems during discussions with resource agencies. Alternatives that have fatal flaws or do not meet the purpose and need/corridor vision will not be considered reasonable alternatives, even if they reduce impacts to a particular resource.

Detail the range of alternatives considered, screening criteria, and screening process, including:
a) What types of alternatives were looked at? (Provide a one or two sentence summary and reference document.)

Grade separation (road over rail) alternatives were considered to eliminate the at-grade crossings (see Section 2.3: Build Alternatives). The alternative's constructability was considered so that, per UPRR and BNSF requirements, the tracks remained in service with no interruption to the Railroad's operation during construction.

b) How did you select the screening criteria and screening process?

The screening criteria and screening process replicated that being used for a grade separation (road over rail) of Jefferson Highway (US 90) project in Jefferson Parish, where FRA is the Lead Federal Agency. Alternatives were evaluated against the Purpose and Need (see Section 2.4.1: Purpose and Need) and social, natural, and cultural resources and other criteria (see Section 2.4.2: Environmental Resources and Other Criteria).

c) For alternative(s) that were screened out, briefly summarize the reasons for eliminating the alternative(s). (During the initial screenings, this generally will focus on fatal flaws.)

No Build Alternatives were screened out due to fatal flaws.

d) Which alternatives should be brought forward into NEPA and why?

The No-Build Alternative and all three Build Alternatives should be brought forward into NEPA. The Build Alternatives all satisfy the Purpose and Need, have no known fatal flaws or significant differences in the screening evaluation (see Section 2.6: Recommendations).

e) Did the public, stakeholders, and agencies have an opportunity to comment during this process?

A virtual agency alternatives meeting was held on April 11, 2024. Local officials and public alternatives meetings were held on April 16, 2024 (see Section 4.5: Alternatives Meetings). Comment forms were available at each meeting and afterwards on DOTDs NORG Avondale webpage.

f) Were there unresolved issues with the public, stakeholders, and/or agencies?

There were no unresolved public, stakeholders, and/or agencies issues. Permit coordination with the Southeast Louisiana Flood Protection Authority – West would be required during the NEPA process.

7. Planning assumptions and analytical methods:
a) What is the forecast year used in the PEL study?

The PEL study forecast year is 2048.

b) What method was used for forecasting traffic volumes?

Traffic volume forecasts for the year 2048 No-Build condition were developed using a compounded growth rate of 0.5% to the traffic data collected in November 2021. The RPC maintains current and future year travel demand models for the Region, which were utilized to determine the growth rate for the area.

c) Are the planning assumptions and the corridor vision/purpose and need statement consistent with each other and with the long-range transportation plan? Are the assumptions still valid?

The planning assumptions and Purpose and Need are consistent with each other and are still valid. The NORG grade crossing operational improvements are included in the 2052 RPC New Orleans Metropolitan Area Metropolitan Transportation Plan Orleans Parish, but not Jefferson Parish Project Lists. The NORG improvements are currently not a line item in the TIP or STIP.

d) What were the future year policy and/or data assumptions used in the transportation planning process related to land use, economic development, transportation costs, and network expansion?

*Jefferson Parish's Envision Jefferson 2040 Comprehensive Plan (JP, 2040) and the Parish's official Future Land Use Map (FLUM) (see **Appendix E: FLUM**) were reviewed during alternative's development. The RPC's travel demand model was used to forecast the area growth rate.*

The planning assumptions are expected to remain valid through 2048.

8. Environmental resources (wetlands, cultural, etc.) reviewed. For each resource or group of resources reviewed, provide the following:
a) In the PEL study, at what level of detail was the resource reviewed and what was the method of review?

*The environmental resources, including their level of detail review are included in **Section 3: Environmental Resources and Potential Impacts**.*

b) Is this resource present in the area and what is the existing environmental condition for this resource?

*The environmental resources present in the Study Area are included in **Section 3: Environmental Resources and Potential Impacts** and **Appendix M: Stage 0 Environmental Checklist**.*

c) What are the issues that need to be considered during NEPA, including potential resource impacts and potential mitigation requirements (if known)?

Environmental resources information would be supplemented and further analyzed during NEPA. Pedestrian field surveys for wetlands, historic and archaeological resources, hazardous materials and contaminants, and other resources when identified by the resource/regulatory agencies would be conducted, and their findings reported. Impacts to each resource from each alternative would be evaluated and reported in the NEPA document.

d) How will the planning data provided need to be supplemented during NEPA?

The environmental resources information would be supplemented and further analyzed during NEPA. Pedestrian field surveys for wetlands, threatened and endangered species, historic and archaeological resources, hazardous materials and contaminants, and other resources when identified by the resource/regulatory agencies would be conducted, and their findings reported.

9. List environmental resources you are aware of that were not reviewed in the PEL study and why. Indicate whether or not they will need to be reviewed in NEPA and explain why.

Environmental resources would be further analyzed during NEPA. Environmental factors that are un-reported or not available from public sources could be present. Pedestrian field surveys would be conducted for wetlands, threatened and endangered species, historic and archaeological resources, hazardous materials and contaminants, and other resources when identified by the resource/regulatory agencies for the alternatives carried forward. Any avoidance, minimization or remediation details would be documented in the NEPA document.

10. Were cumulative impacts considered in the PEL study? If yes, provide the information or reference where the analysis can be found.

The PEL study did not consider cumulative impacts. Cumulative impacts would be analyzed and reported in the NEPA document.

11. Describe any mitigation strategies discussed at the planning level that should be analyzed during NEPA.

Mitigation strategies were not discussed in the PEL document. However, impact avoidance and minimization to residential and commercial properties did drive the alternatives development. Mitigation would be fully discussed in the NEPA document and any required mitigation and costs would be reported.

12. What needs to be done during NEPA to make information from the PEL study available to the agencies and the public? Are there PEL study products which can be used or provided to agencies or the public during the NEPA scoping process?

The documents produced as part of PEL study are posted and available for review on DOTDs NORG Avondale webpage: www.dotd.la.gov/about/office-of-multimodal-commerce/rail/freight-and-passenger-rail/new-orleans-rail-gateway-program/avondale-planning-evaluation-linkages-study-documents/.

The documents will be available throughout the life of the project.

13. Are there any other issues a future project team should be aware of?
Examples: Controversy, utility problems, access or ROW issues, encroachments into ROW, problematic land owners and/or groups, contact information for stakeholders, special or unique resources in the area, etc.

*Construction of a new Avondale Public Library in US Highway 90/AGR northwest quadrant began after the alternatives were developed. The Avondale Garden Road Alternative would potentially impact the parking and access to the new library (see **Section 3.2.5: Communities and Environmental Justice**).*

Project funding beyond the NEPA process has not been completely identified.

14. Question added: Under which authority was this PEL equivalent study developed?

*The study was developed consistent with 23 USC Chapter 1 §168 (b)(1) (see the **Introduction**).*

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6. PROJECT TEAM

6.1 Louisiana Department of Transportation and Development

J. Dean Goodell – Freight & Passenger Rail Program Director, Office of Multimodal Commerce, (DOTD Project Manager)
Robin Daigle – Environmental Impact Manager
William "Bill" Shrewsberry – Highway/Rail Safety Engineer
Aidan Eymard, P.E. – Road Design Plan Development Engineer
James Fogleman, P.E. – Road Design Engineer 4
Monique D. Ordogne – Traffic Engineering Management
Brandon Boucher – Design Development Engineer Manager

6.2 Jefferson Parish

Mark Drewes – Public Works Director
Susan Treadway – Supervisor, Traffic Engineering Division

6.3 Union Pacific Railroad

Tyson Moeller – General Director Network Development

6.4 BNSF Railway

John Caufield – Manager, Public Projects

6.5 Consultant Team

6.5.1 Michael Baker International, Inc. (Prime Consultant)

Christopher G. Gesing, P.E. – Consultant Team Project Manager and Environmental Lead
Lu Ann N. May – Technical Manager
Carla Dietrich, P.E., PTOE – Senior Associate, Technical Manager – Transportation
Daniel Thornhill, P.E. – Office Manager - Associate Vice President, Transportation Department Manager
Marcela Trochez – Civil Associate
Christopher N. Coppock, P.E. – Project Manager - Track
Trevor Arnott, E.I.T. – Civil Associate, Highway
Douglas Whittaker, P.E., S.E. – Senior Associate - Bridge Structural / Construction Engineer

6.5.2 Vectura Consulting Services, LLC (Traffic Engineering Process and Report - TEPR)

Laurence Lambert, P.E., PTOE, PTP – Principal
Kristen Farrington, P.E., PTOE, RSP1 – Project Engineer

6.5.3 AECOM Technical Services, Inc. (Rail Operations Analysis)

Willard F. Keeney – Senior Project Engineer

6.5.4 The Hawthorne Agency, Inc. (Public Involvement)

Geneva Coleman – President
Karimah Stewart – Public Relations Manager

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7. REFERENCES

DOTD, 2021. Louisiana Department of Transportation and Development, New Orleans Rail Gateway, Avondale PEL Study, Rail Operations Analysis, Jefferson Parish, Louisiana, November 24, 2021.

DOTD, 2024. Louisiana Department of Transportation and Development, New Orleans Rail Gateway, Avondale Rail Crossings Study, New Orleans Rail Gateway Program, Traffic Engineering Process and Report (TEPR), Jefferson Parish, Louisiana, November 15, 2024.

JP, 2013. Jefferson Parish, Louisiana, Jefferson Parish Bicycle Master Plan, Final Draft, December 2013.

JP, 2040. Jefferson Parish, Louisiana, Envision Jefferson 2040: The Jefferson Parish Comprehensive Plan, adopted November 6, 2019.

RPC, 2007. New Orleans Regional Planning Commission, Louisiana Department of Transportation and Development, and the Association of American Railroads, New Orleans Rail Gateway, Infrastructure Feasibility Analysis, December 2007.

RPC, 2022. New Orleans Regional Planning Commission, Westbank Transportation Road & Rail Subarea Analysis, Stage 0 Feasibility Study, Jefferson Parish, H.972382.1, RPC Contract No. A-3.21, 2022.

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