



Neel-Schaffer's Concept Layout  
for LA 44: I-10 Roundabouts

Edenborne

PROPOSAL

*Engineering and Related Services*

**LA 44: I-10 ROUNDABOUTS**

**ROUTE: LA 44 & I-10**

Contract No. 4400028432

State Project No. H.015569.5

Federal Aid Project No. H01556

February 7, 2024

**Project Manager**

Dishili Young, PE, PTOE

dishili.young@neel-schaffer.com

225.614.2816



This project is one of several projects which will widen LA 44 from LA 22 to I-10. These improvements will improve the safety and capacity along this critical corridor in Ascension Parish. We are familiar with the challenges faced by this region. We have design experience along this corridor, along I-10, and with similar projects. We invite you to review our team's qualifications and look forward to working with DOTD, if selected, to successfully complete this project.



## Sections 1-11

Contract No. 4400028432

**LA 44: I-10 Roundabouts**

**Route: LA 44 & I-10**

Neel-Schaffer has worked on over 175 roundabouts in Louisiana.

# DOTD FORM: 24-102

## PROPOSAL TO PROVIDE CONSULTANT SERVICES

(Revised January 1, 2023)

Prime consultant shall complete the DOTD Form 24-102 without altering the Form's text; however, the instruction and/or guidance for Sections 12 through 23 can be removed but do not remove Section title and number.

ANY CONSULTANT FAILING TO SUBMIT ANY OF THE INFORMATION REQUIRED ON THE DOTD FORM 24-102, OR PROVIDING INACCURATE INFORMATION ON THE DOTD FORM 24-102, MAY BE CONSIDERED NON-RESPONSIVE.

<b>1. Contract Name</b> as shown in the advertisement	<b>LA 44: I-10 ROUNDABOUTS ROUTE: LA 44 &amp; I-10 Ascension Parish</b>
<b>2. Contract Number(s)</b> as shown in the advertisement	<b>4400028432</b>
<b>3. State Project Number(s)</b> , if shown in the advertisement	<b>H.015569.5</b>
<b>4. Prime consultant name</b> (name must match as registered with the Louisiana Secretary of State where such registration is required by law)	<b>Neel-Schaffer, Inc.</b>
<b>5. Prime consultant license number</b> (as registered with the Louisiana Professional Engineering and Land Surveying Board (LAPELS) if registration is re-quired under Louisiana law)	<b>EF.0001372</b>
<b>6. Prime consultant mailing address</b>	10000 Perkins Rowe, Suite G360 Baton Rouge, LA 70810
<b>7. Prime consultant physical address</b> (existing or to be established, if location is used as an evaluation criteria)	10000 Perkins Rowe, Suite G360 Baton Rouge, LA 70810
<b>8. Name, title, phone number, and email address of prime consultant's contract point of contact</b>	<b>Dishili Young, PE, PTOE</b> <i>Vice President / Engineer Manager</i> dishili.young@neel-schaffer.com 225.614.2816
<b>9. Name, title, phone number, and email address of the official with signing authority for this proposal</b>	<b>Nick Ferlito, PE, PTOE</b> <i>Senior Vice President / Louisiana Area Manager</i> nick.ferlito@neel-schaffer.com 225.924.0235



10. This is to certify that all information contained herein is accurate and true, and that the team presently has sufficient staff to perform these services within the designated time frame. By submitting this proposal, proposer certifies that it is not engaged in a boycott of Israel and it will, for the duration of its contract obligations, refrain from a boycott of Israel. Proposer also certifies and agrees that the following information is correct: In preparing its response, the proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israeli-controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. The proposer also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. DOTD reserves the right to reject the response of the bidder or proposer if this certification is subsequently determined to be false, and to terminate any contract awarded based on such a false response.



Signature above shall be the same person listed in Section 9:

Date: **February 7, 2024**

11. If a Disadvantaged Business Enterprise (DBE) goal has been set for this advertisement, indicate which firm(s) will be used to meet the DBE goal and each firm(s)' percentage.

FIRM	FIRM PERCENT
VECTURA Consulting Services, LLC	6%



One of the keys to the successful completion of this project is recognizing the constraints and communicating with all parties while providing a design which avoids them. Our project team has completed a site visit and recognizes that the pipeline and transmission corridor can be avoided which will save millions of dollars and lost time. We will provide a design which will improve or possibly eliminate the guardrail around the transmission line foundation, thus mitigating maintenance costs.



## Sections 12-15

Contract No. 4400028432

**LA 44: I-10 Roundabouts**

**Route: LA 44 & I-10**

There are nine underground industry pipelines carrying a variety of products including promix or High Volatile Liquids, Propylene, propane, Natural Gas and Natural Gas Liquids. The sizes of these lines range from 6" to 20" in diameter, none appear to be in casings, and several AGM's are located within or near the existing R/W. When working around pipelines which are not encased, it is critical that all clearances and separations are maintained between the pipeline and other crossings such as drainage and the pavement section. **Our design team understands pipeline clearance constraints and includes several key staff who are very familiar with designing and working around pipelines.**






**12. PAST PERFORMANCE EVALUATION DISCIPLINE TABLE:**

Past Performance Evaluation Discipline(s)	% of Overall Contract	Neel-Schaffer, Inc.	Crescent Engineering & Mapping, LLC	VECTURA Consulting Services, LLC	Each Discipline must total to 100%
<b>Road</b>	94.00%	70.00%	30.00%	0.00%	100%
<b>Traffic</b>	6.00%	0.00%	0.00%	100.00%	100%
Identify the percentage of work for the <b>overall contract</b> to be performed by the prime consultant and each sub-consultant.					
Percent of Contract	100%	65.80%	28.20%	6.00%	



13. FIRM SIZE:

Firm name	DOTD Job Classification	Number of personnel committed to this contract	Total number of personnel available in this DOTD Job Classification (if needed)
 <p>Neel-Schaffer, Inc.</p>	Principal	1	2
	Supervisor – Eng	2	2
	Engineer	12	25
	Engineer Intern	2	7
	Senior Technician	0	2
 <p>Crescent Engineering &amp; Mapping, LLC</p>	Supervisor Engineer	1	1
	Engineer	4	4
	Sr. Technician	0	2
 <p>VECTURA Consulting Services, LLC</p>	Supervisor - Eng	2	2
	Engineer	3	3
	Engineer Intern	1	2
	Inspector	0	2
	Supervisor – Other	0	1



14. ORGANIZATIONAL CHART:

**LEGEND**

- ◆ Neel-Schaffer, Inc.
  - ◇ Vectura Consulting Services, LLC
  - ◇ Crescent Engineering & Mapping, LLC
- 
- # MPR Designation
  - ◀ TEPR Certified



**PROJECT PRINCIPAL**

◆ Nick Ferlito, Jr., PE, PTOE ◀ 1 2

**PROJECT MANAGER**

◆ Dishili Young, PE, PTOE ◀ 2 3

**QA / QC**

- ◆ Kirk Gallien, PE, PTOE ◀ 6 *TMP*
- ◆ Gary LeBlanc, PE ◀ *Roadway Design*
- ◆ Phil Graves, PE *Constructability*
- ◇ James Ledet, PE, FACEC 4 *Bridge*

**TMP & TEMPORARY SIGNAL DESIGN**

- ◆ Charles Adams, PE, PTOE ◀ 6
- ◆ Jonathan Duhe, PE, PTOE, RSP<sub>1</sub> ◀ 6
- ◇ Brin Ferlito, PE, PTOE ◀ 6
- ◇ Laurence Lambert, PE, PTOE, PTP ◀ 6
- ◇ Reece Rodrigue, PE, PTOE, RSP<sub>1</sub> ◀
- ◇ Kristen Farrington, PE, PTOE, RSP<sub>1</sub> ◀
- ◇ Bridget Robicheaux, PE, PTOE ◀

**ROADWAY DESIGN**





- ◆ Dishili Young, PE, PTOE ◀ 2 3
- ◆ Mai Nguyen, PE 3
- ◆ Scott Andrepont, PE 3
- ◆ Chance Shuckrow, PE 3
- ◆ Josh Schexnider, PE
- ◆ Jeanne Zeringue, EI
- ◆ Jacob Thiaville, EI
- ◇ Dennis Hymel, PE 4
- ◇ Abbey F. Falcon, PE
- ◇ Paul I. Olivier, PE

**BRIDGE DESIGN**

- ◆ David Hebert, PE
- ◆ Steve Hazen, PE
- ◇ Dennis Hymel, PE 4
- ◇ Megan Miller, PE 5
- ◇ Abbey F. Falcon, PE



## 15. MINIMUM PERSONNEL REQUIREMENTS:

MPR No.	Personnel being used to meet the MPR (Individual(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the advertisement)	Firm employed by	Type of license and discipline meeting MPR / certification and number (Ex: PE # - Civil)	State of license	License / certification expiration date
1	Nick Ferlito, Jr., PE, PTOE	 Neel-Schaffer, Inc.	PE No. 28001 - Civil	LA	09/30/25
2	Nick Ferlito, Jr., PE, PTOE		PE No. 28001 - Civil	LA	09/30/25
2	Dishili Young, PE, PTOE		PE No. 33723 - Civil	LA	09/30/24
3	Dishili Young, PE, PTOE		PE No. 33723 - Civil	LA	09/30/24
3	Mai Nguyen, PE		PE No. 38189 - Civil	LA	03/31/24
3	Chance Shuckrow, PE		PE No. 42746 - Civil	LA	03/31/25
3	Scott Andrepont, PE		PE No. 37107 - Civil	LA	09/30/24
4	Dennis Hymel Jr., PE	 Crescent Engineering & Mapping, LLC	PE No. 38172 - Civil	LA	09/30/25
4	James P. Ledet, PE, F. ACEC		PE No. 22428 - Civil	LA	03/31/24
5	Megan M. Miller, PE		PE No. 39897 - Civil	LA	09/30/25
6	Sheelagh Brin Ferlito, PE, PTOE	 Vectura Consulting Services, LLC	PE No. 25383 - Civil	LA	09/30/25
6	Laurence Lambert, PE, PTOE, PTP		PE No. 29901 - Civil	LA	03/31/24
6	Ronald Kirk Gallien, PE, PTOE	 Neel-Schaffer, Inc.	PE No. 23428 - Civil & Environmental	LA	09/30/25
6	Jonathan Duhe, PE, PTOE, RSP		PE No. 41047 - Civil	LA	03/31/25
6	Charles Adams, PE, PTOE		PE No. 27440 - Civil	LA	09/30/25

**NSI TEAM MEMBERS**

	Nick Ferlito, Jr., PE, PTOE	Dishili Young, PE, PTOE	Gary LeBlanc, PE	Mai Nguyen, PE	Chance Shuckrow, PE	Scott Andrepont, PE	Joshua Schexnider, PE	Phil Graves, PE	Ronald Kirk Gallien, PE, PTOE	Jonathan Duhe, PE, PTOE, RSP	Charles Adams, PE, PTOE	Jacob Thiaville, EI	Dennis Hymel, Jr., PE	James P. Ledet, , PE, FACEC	Jeanne Zeringue, EI	Steve Hazen, PE	David Hebert, PE
<b>EXPERIENCE ALONG I-10 AND/OR LA 44 CORRIDOR</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓							
<b>WORKED ON SIMILAR ROAD DESIGN PROJECTS</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
<b>WORKED ON SIMILAR BRIDGE DESIGN PROJECTS</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
<b>WORKED ON SIMILAR ROADWAY DRAINAGE DESIGN PROJECTS</b>	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
<b>WORKED ON TMP OR PROVIDED TMP SUPPORTING DOCS</b>	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓					


# Section 16

Contract No. 4400028432

**LA 44: I-10 Roundabouts**

**Route: LA 44 & I-10**


## 16. STAFF EXPERIENCE

	<b>Firm employed by Neel-Schaffer, Inc.</b>				
	Name	<b>Nick Ferlito, Jr., PE, PTOE</b>		Years of relevant experience with this employer	28
	Title	Senior Vice President / Louisiana Area Manager		Years of relevant experience with other employer(s)	3
	Degree(s) / Years / Specialization		BS / 1993 / Civil Engineering; MS / 1996 / Civil Engineering		<ul style="list-style-type: none"> <li>✓ Worked on 90 Roundabouts in conformance with DOTD requirements</li> <li>✓ Has experience along I-10 and LA 44 Corridor</li> <li>✓ Has experience with interchange roundabouts</li> </ul>
	Active registration number / state / expiration date		PE No. 28001 / LA / 09-30-2025; PTOE No. 930		
	Year registered	1998	Discipline	Civil	
Contract role(s) / brief description of responsibilities		Principal <b>MPRs 1 &amp; 2</b>			
Experience dates (mm/yy–mm/yy)		Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
01/20 – Present	<b>I-20: LA 544 Overpass Replacement:</b> TMP and traffic analysis QA/QC. <b>Preliminary and final design</b> services for this project., which will replace the LA 544 Overpass diamond interchange with a diamond roundabout interchange. The project includes a new bridge over I-20 with sidewalks and four multilane roundabouts within a roundabout interchange with two <b>roundabouts on a 3% longitudinal grade &amp; partially on bridge. Includes a level 2 TMP</b>				
01/15 – 01/23	<b>Various Traffic Impact Studies along LA 44:</b> Project Manager for multiple traffic impact studies for various developments along LA 44 which include Conway Plantation, Oak Lake Subdivision, Pelican Crossing Subdivision, Pelican Point Subdivisions and Love’s Travel Stop. As part of the Conway Plantation study, a roundabout was analyzed and recommended at the entrance of LA 44 and Conway Plantation and Oak Lake Subdivision which was later constructed under a DOTD permit. Our latest study, the Love’s Travel Stop, the <b>interchange at LA 44 at I-10 was evaluated</b> for existing and future conditions as a roundabout and with interim recommendations prior to the installation of roundabouts. Traffic data for the analysis was collected by Neel-Schaffer in 2022. Neel-Schaffer, Inc. has extensive knowledge of the LA 44 corridor from I-10 to LA 22 through. We are very familiar with the struggles to determine cost effective traffic control at the intersection of LA 44 and Loosemoore Road due to minimum gaps for side street traffic to exit onto LA 44. This roundabout corridor will greatly improve the access to and from Loosemoore Road.				
10/13 – 12/16	<b>LA 30 Stage 0 Traffic &amp; Safety Study, Gonzales, LA:</b> Project Manager for the traffic study, including a TIER analysis for new interchange concepts at I-10 at LA 30, as well as corridor improvements between LA 3251 and <b>LA 44</b> . Future traffic forecast for the study were developed using the CRPC Travel Demand model and considered future interchanges at I-10 and LA 74 and LA 429. The recommended TIER I alternatives were analyzed in detail using Vissim. <b>Includes Multilane Roundabout interchange</b>				
01/11 – 01/14	<b>LA 447 Corridor Study (LA 16 to US 190), Walker, LA:</b> Project Manager for a traffic study to evaluate corridor improvements along LA 447 as well as interchange concepts at I-12. A TIER analysis was performed at the interchange of I-12 at LA 447 to evaluate various interchange configurations. The corridor analysis included HCS and Vissim analysis to evaluate RCUT and roundabout corridor concepts. <b>Includes multilane roundabouts</b>				
07/16 – Present	<b>I-49 South at Verot School Road, Lafayette, LA:</b> Performed Traffic QA/QC on the preparation of a <b>Level 3 TMP</b> and design of temporary and permanent traffic signals. <b>Includes a multilane Roundabout</b>				
08/20 – Present	<b>I-10 &amp; I-12 College Drive Flyover Ramp Design Build, Baton Rouge, LA:</b> Project Manager for Interchange Modification Report, <b>TMP</b> , and ITR of MOT Plans for the proposed College Drive Ramp improvements. The IMR was prepared in accordance with DOTD’s TEPR and FHWA Policy Points. The IMR analysis was performed using Vissim software. In addition, the TMP was prepared for the various maintenance of traffic phases. Analysis used in the TMP included HCS analysis for detour evaluations and Dynameq (Mesoscopic Modeling) for evaluating various MOT strategies.				
08/20 – Present	<b>College Drive Enhancement Project (Perkins Road to I-10), Baton Rouge, LA:</b> Project Manager for the Traffic Study component for the study of the College Drive corridor. The Traffic Study is being prepared in accordance with DOTD’s TEPR and includes performing all analysis in Vissim to evaluate various alternatives. In addition to corridor improvements, a tiered analysis will be performed to evaluate various interchange alternatives for I-10 at College Drive.				
02/15 – 12/17	<b>US 51 (W University to I-55) Corridor Study:</b> Includes analysis of eight roundabout geometry intersections. Project Manager				

12/19 – Present	<b>US 80 Feasibility Study, Haughton, LA:</b> Project Manager for the preparation of a Stage 0 Report in support of safety improvements along US 80 corridor, specifically in the vicinity of Bellevue Road and Mid-South Loop Road. All analysis performed in HCS for this study. The traffic study was performed in accordance with DOTD's TEPR.
06/17 – 09/18	<b>I-10 New Orleans Master Plan, Port Access Improvements:</b> Created a plan or a program of projects which mitigates the severe congestion extending from Interstate 10 at its interchange with the Pontchartrain Expressway (US 90B / I-910) to the Crescent City Connection (CCC) crossing of the Mississippi River, including connecting ramps and roadways. Project Manager. <b>Includes roundabout alternatives.</b>
01/15 – 06/15	<b>LA 3002, 16 &amp; 1034 Corridor Study Phase 2, Range Ave. Corridor Study:</b> Project Manager. <b>Includes 12 roundabout alternatives.</b>
03/13 – 09/14	<b>Operational / Safety Study, LA 311, Houma, LA:</b> Provided traffic signal evaluation and installation design services: Traffic counting (data collection), Warrant Analysis, Traffic Modeling, Intersection / Corridor Analysis Traffic Signal Design, Geometric Evaluations, Traffic Signal Inventories (TSI), and Access Management. Traffic Engineering Manager <b>Includes 6 roundabout alternatives.</b>
11/12 – 04/14	<b>Operational / Safety Study, LA 1088, Mandeville, LA:</b> Provided traffic signal evaluation and installation design services: Traffic counting (data collection), Warrant Analysis, Traffic Modeling, Intersection / Corridor Analysis Traffic Signal Design, Geometric Evaluations, Traffic Signal Inventories (TSI), and Access Management. Traffic Engineering Manager <b>Includes 8 roundabout alternatives.</b>
01/13 – 01/14	<b>US 190 (LA 433 to US 11) Interim Capacity / Widening Improvements Stage 0 Feasibility Study:</b> Performed a safety and capacity evaluation of a 6.6-mile segment of US 190 corridor within St. Tammany Parish extending from LA 433 to US 11. Traffic Engineering Manager. <b>Includes 8 roundabout alternatives.</b>
11/16 – 08/19	<b>LA 385 Feasibility Study, Lake Charles, LA:</b> Project Manager for the Stage 0 Report in support of safety and traffic operational improvements along with the LA 385 (Ryan Street) corridor between LA 3186 south of I-10 to Eddy Street north of I-10, including the LA 385 interchange with I-10. <b>Includes Multilane Roundabouts</b>
02/16 – 04/18	<b>LA 22 Corridor Study, Rou Mar Nei Drive to 1st Street, Ponchatoula, LA:</b> Project Manager for a traffic study to evaluate corridor improvements along LA 22 as well as interchange concepts at I-55. A TIER analysis was performed at the interchange of I-55 at LA 22 to evaluate various interchange configurations. The corridor analysis included HCS analysis to evaluate RCUT and <b>roundabout corridor concepts.</b>
02/15 – 04/18	<b>LA 384 Stage 0 Traffic &amp; Safety Study, Lake Charles, LA:</b> Project Manager for traffic and safety study for LA 384 (Country Club Road) from Big Lake Road to McNeese Street. <b>Includes Multilane Roundabouts</b>
02/18 – Present	<b>Kansas Lane-Garrett Road Connector and I-20 Improvements, Monroe, LA:</b> Project Manager/Traffic Lead for the preparation of a Level 4 <b>Transportation Management Plan</b> , review of MOT plans, design of <b>temporary and permanent traffic signals</b> and design of the relocation of DOTD ITS fiber optic trunk line.
Career History	<p>Nick joined Neel-Schaffer in 1996. He is a Senior Vice President and serves as Louisiana Area Manager, overseeing all responsibilities for the state. He has more than 30 years of experience managing a wide range of traffic and transportation projects. He has served as a project manager for many intersection/corridor signal timing studies, signal design projects, safety studies and other traffic engineering related projects for public and private projects. Nick is experienced with numerous traffic engineering software packages, including HCS, CORSIM, SYNCHRO, Tru-Traffic (TSPPDraft), and SIDRA. He also completed the Naztec TS1/TS2 Controller 2-Day training course. He has also completed the NEPA and Transportation Decision Making course (2004), the Highway Safety Manual Workshop (2011) as well as LADOTD's Traffic Engineering Process and Report (TEPR) training. He has also served as the project manager and lead traffic engineering for the following IDIQ contracts with Louisiana Department of Transportation and Development:</p> <ul style="list-style-type: none"> <li>• IDIQ Contract 44-01583 for Safety Studies Statewide</li> <li>• IDIQ Contract 44-04402 for Safety Studies Statewide</li> <li>• IDIQ Contract 44-10504 for Safety Studies Statewide</li> <li>• IDIQ Contract 44-08851 for Traffic Signal Engineering</li> <li>• IDIQ Contract 44-04712 for Traffic Engineering</li> <li>• IDIQ Contract 44-04064 for Traffic Engineering</li> <li>• IDIQ Contract 44-01777 Signal Timing Studies</li> <li>• IDIQ Contract 44-04712 Traffic Signal Engineering</li> </ul>




## 16. STAFF EXPERIENCE

	<b>Firm employed by Neel-Schaffer, Inc.</b>				
	Name	<b>Dishili Young, PE, PTOE</b>		Years of experience with this firm/employer	6
	Title	Vice President / Engineering Manager		Years of experience with other firm(s)/employer(s)	15
	Degree(s) / Years / Specialization		BS / 2002 / Civil Engineering; MS / 2018 / Civil Engineering		<ul style="list-style-type: none"> <li>✓ Worked on 70 Roundabouts in conformance with DOTD requirements</li> <li>✓ Has experience along I-10 and LA 44 Corridor</li> <li>✓ Has experience with interchange roundabouts</li> </ul>
	Active registration number / state / expiration date		PE No. 33723 / LA / 09-30-2024		
	Year registered	2008	Discipline	Civil	
Contract role(s) / brief description of responsibilities		Project Manager <b>MPRs 2 &amp; 3</b>			
Experience dates (mm/yy–mm/yy)		Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
01/20 – Present	<b>I-20: LA 544 Overpass Replacement:</b> Managing the <b>preliminary and final design</b> services for this project. This project will replace the LA 544 Overpass diamond interchange with a diamond roundabout interchange. The project includes a new bridge over I-20 with sidewalks and four multilane roundabouts within a roundabout interchange with two <b>roundabouts on a 3% longitudinal grade &amp; partially on bridge. Includes a level 2 TMP</b>				
04/18 – Present	<b>I-49 South at Verot School Road:</b> Managing the design services for the interstate design and service road design (drainage, preliminary and final road design and TMP). This project which will construct 2.4 miles of mainline freeway, bridges and an interchange at the intersection of I-49 South/US 90 and Verot School Road. This project includes the design of a major bridge crossing at Verot Rd. and I-49 and a roundabout at the relocated intersection of Verot Rd and South Collage Rd. Neel-Schaffer (NSI) is serving as the subconsultant for this project. NSI is designing the interstate mainline and frontage roadways, as well as, designing the drainage along these corridors. NSI is also completing the traffic design and <b>level 3 TMP. Includes a multilane roundabout</b>				
09/18 – 12/18	<b>I-20 at 220 Interchange Improvement &amp; BAFB Design-Build Project:</b> Included preliminary plan development for completing the existing partial interchange by adding a new flyover ramp, cloverleaf ramp, modifying existing ramps, and providing a new arterial roadway with a new bridge over the Kansas City Southern railroad.				
08/17 – 03/19	<b>Juban Road Widening:</b> Served as the engineer of record and managed the completion of the roadway and drainage design services for this project which will widen LA 1026 (Juban Rd.), construct <b>three multilane roundabouts</b> and two new frontage access roadways, with storm drainage sewer systems.				
08/17 – Present	<b>Mandeville Bypass, Mandeville, LA:</b> This project will provide a new 3 Mile median divided roadway with integral bike path connecting LA 1088 near its interchange with I-12 and US 190 near Fontainebleau Park. It will construct five roundabouts and multiple entrances to Pelican Park. Ms. Young is managing the roadway design services. <b>Includes multiple multilane roundabouts.</b>				
06/23 – Present	<b>US 90: Roundabout at LA 101:</b> <b>Roundabout</b> intersection preliminary and final plans, drainage, sequence of construction and TMP.				
02/10 – 12/11	<b>I-10 Widening Design-Build Siegen Ln. (LA Hwy 3246) to Highland Rd. (LA Hwy 74) for LA DOTD:</b> Served as Engineer and managed portions of the civil design for this project. This project involved the widening of I-10 from four lanes to six, bridge reconstruction (I-10 over Wards Creek and I-10 over KCS Bridge), and drainage improvements along the corridor. In addition to assisting with the roadway design, Ms. Young completed the H&H analysis and scour analysis for the Wards Creek Bridge. She also assisted with the drainage design along the interstate corridor.				
01/09 – 11/11	<b>I-12 Widening Design-Build (O'Neal Ln. to Pete's Hwy):</b> Served as Engineer for this project which involved the widening of I-12 and bridge reconstruction (I-12 over Amite River (two bridges) and I-12 over O'Neal Lane (two bridges)). In addition to assisting with the roadway design, Ms. Young assisted with the scour analysis and H&H analysis at the Amite River as well as the drainage design along the interstate corridor.				
02/22 – Present	<b>W. Broussard Roundabout at Duhon Rd. (LA 724):</b> This project will construct a roundabout and required drainage improvements. <b>Includes a multilane roundabout.</b> Completed the horizontal and vertical alignments. Preliminary and Final Road Design				
12/22 – Present	<b>LA 89 @ Guillot Rd Improvements:</b> Existing drainage determination, proposed drainage design and plan preparation. <b>Includes roundabouts.</b> Preliminary and Final Road Design				

08/22 – Present	<b>LA 89 at Chemin Metairie Parkway, Youngsville, LA:</b> This project provides new two-lane connector roadway with drainage between Chemin Metairie Parkway & LA 89. <b>Includes multilane roundabouts in final design stage</b>
09/22 – Present	<b>E. Milton Ave Improvements, Lafayette Parish, LA:</b> This project will widen an existing <b>Roundabout</b> at E. Milton Ave./Chemin Metairie Rd intersection from single lane to multi-lane and widen and overlay E. Milton Ave. and Chemin Metairie Rd. in Youngsville, LA. <b>Roadway and Drainage Design.</b>
12/14 – 08/17	<b>LA 447 Corridor Study, Walker, LA (LA 16 to US 190):</b> Assisted with the geometric design for the R-Cut and roundabout improvements, public outreach and served as Project Manager and road design lead for the EA while working at APTIM. <b>Includes multilane roundabouts</b>
08/17 – Present	<b>Ham Reid at LA 3092 Intersection Improvements:</b> Serves as engineer of record for this project which will construct a <b>roundabout</b> at the intersection of LA 3092 and Ham Reid Road. The <b>roadway and drainage design</b> were completed in accordance with LADOTD guidelines.
12/17 – 07/20	<b>Southcity Parkway Extension, Lafayette, LA:</b> This project constructs a 1.7 - mile, four-lane median divided corridor between US 167 (Johnston Street) with Kaliste Saloom Road. It includes three <b>multilane roundabout</b> intersections and a new bridge crossing of the Vermillion River. The roadway and drainage design is being completed in conformance with LADOTD guidelines. Ms. Young managed and assisted with the roadway, bridge hydraulics and roadway drainage design effort for this project. NSI provided public outreach, environmental, road design and traffic services.
10/13 – 12/16	<b>I-10 LA 30 Stage 0, Gonzales, LA:</b> Traffic & Safety Study: PM for line and grade geometry, public outreach considered 21 interchange types for new interchange concepts <b>at I-10</b> at LA 30, as well as corridor improvements between LA 3251 and <b>LA 44</b> . CRPC Travel Demand model used with consideration of future interchanges at I-10 and LA 74 and LA 429. The concepts utilized in this study served as the base geometry for the preliminary plans. <b>Includes Multilane Roundabout interchange</b>
09/17 – 10/18	<b>LA 27 Turn Lanes:</b> Served as engineering design manager for this project which constructed turn lanes at multiple locations along LA 27 in Calcasieu and Cameron Parishes. The design was completed in accordance with LADOTD guidelines.
06/13 – Present	<b>Stage 0 Feasibility Study Modern Roundabouts, Lafayette, LA:</b> Road alignment, roundabout layout, and design, preparing cost estimates. <b>23 separate roundabouts</b>
	<b>I-69 SUI 13 Road Design Services for ARDOT:</b> NSI is contracted with ARDOT to provide roadway and drainage design services for a 30 Mile new segment of I-69 with multiple interchanges near Monticello. This corridor will be constructed in phases to allow it to advance as funding is available. Neel-Schaffer will produce this design as separate design packages.
03/07 – 08/08	<b>South Harrell's Ferry Road Improvements, GLP, Baton Rouge, LA:</b> This project involved the reconstruction, realignment and widening of South Harrell's Ferry Road to a median divided corridor. Ms. Young provided design support for roadway and drainage tasks which were all completed in accordance with LADOTD guidelines.
Career History	Dishili offers approximately 20 years of progressive experience which includes program management, engineering management, project management and engineering design. Her experience includes the management and design of interstate design-build projects, interstate design-bid-build projects, including roundabout interchanges, road design projects, including multilane roundabouts, drainage projects, H&H Studies, environmental studies and feasibility studies. Her Continuing Education is documented as follows: Transportation Safety Systems (Highway Safety Manual Graduate Course), Auburn University, 2016 ATSSA Traffic Control Supervisor Training Course, Baton Rouge, 2015; ATSSA Traffic Control Technician Training Course, Baton Rouge, 2015 FHWA Highway Safety Manual Workshop, Baton Rouge, 2014 Roadside Safety Design by the Federal Highway Administration and National Highway Institute, LTRC, 2010 Urban Street Design, University of Wisconsin, Madison, Open Channel Design, University of Wisconsin, Madison, Storm Sewer Design, University of Wisconsin, Comprehensive Culvert Design, University of Wisconsin, Maintaining Asphalt Pavements, University of Wisconsin, Using HEC-RAS to compute water surface profiles for floodplains, bridge and culvert hydraulics, University of Wisconsin, DOTD's Traffic Engineering Process and Report (TEPR) training



## 16. STAFF EXPERIENCE

	<b>Firm employed by Neel-Schaffer, Inc.</b>				
	Name	<b>Gary LeBlanc, PE</b>		Years of relevant experience with this employer	1
	Title	Project Engineer		Years of relevant experience with other employer(s)	23
	Degree(s) / Years / Specialization		BS / 1994 / Civil Engineering		
	Active registration number / state / expiration date		PE No. 28220 / LA / 09-30-2025		
	Year registered	1999	Discipline	Civil	
	Contract role(s) / brief description of responsibilities		Road and Traffic Design QA/QC		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
07/23 – Present	<b>US 90 Roundabout at LA 101:</b> Providing QA/QC for improvements to the safety of the intersection by upgrading a two-way stop intersection into a single lane roundabout. The roundabout is being designed using LADOTD and FHWA guidelines. This is a single lane roundabout that will comfortably accommodate WB-67 since this intersection is a detour route for I-10. This project includes pavement signing and striping, drainage improvements, access management, construction sequencing, and cost estimates for bidding.				
10/22 – 10/23	<b>East-West Connector (Winfield Road Congestion Relief):</b> NSI Performed a Traffic Study and Line and Grade for a new east-west corridor through Bossier Parish. Gary completed the Traffic Study for the project and all intersection analyses for the four major intersections. <b>Includes multilane Roundabouts.</b>				
12/23 – Present	<b>Winfield Road Extension Project:</b> Project will provide new four-mile connector roadway between LA 1 at Belleview. NSI will provide road design services. Gary will provide QA/QC.				
12/23 – Present	<b>LA 384 Feasibility Study:</b> QA/QC Capacity analysis and supporting documents				
	<b>I-69 SUI 13 Road Design Services for ARDOT:</b> NSI is contracted with ARDOT to provide roadway and drainage design services for a 30 Mile new segment of I-69 with multiple interchanges near Monticello. Mr. LeBlanc is providing QA/QC for the roadway design. This corridor will be constructed in phases to allow it to advance as funding is available. Neel-Schaffer will produce this design as separate design packages.				
07/22 – Present	<b>I-20: LA 544 Overpass Replacement, Lincoln Parish, LA:</b> NSI is completing the preliminary and final design services for this project, which will replace the LA 544 Overpass diamond interchange with a diamond roundabout interchange. The new bridge over I-20 will include sidewalks and four <b>multilane roundabouts</b> . This project includes a level 2 <b>TMP</b> . Project includes line and grade tasks (establish design criteria, develop typical sections, horizontal geometry, vertical geometry).				
04/22 – Present	<b>I-49 South at Verot School Road:</b> Provided QA/QC for this project which will construct 2.4 miles of mainline freeway and interchange at the intersection of I-49 South/US 90 and Verot School Road. This project includes the design of a major bridge crossing at Verot Rd. and I-49, and a roundabout at the relocated intersection of Verot Rd and South Collage Rd. NSI is serving as the subconsultant for this project and designing the mainline and frontage roadways and associated a drainage. Project includes preliminary and final plans as well as signals.				
07/22 – Present	<b>W. Broussard Roundabout at Duhon Rd. (LA 724):</b> This project will construct a roundabout and required drainage improvements. Includes roundabout. Completed the horizontal and vertical alignments (Preliminary and final design).				
07/22 – Present	<b>E. Milton Ave. Roundabout Widening and Corridor Improvements, Youngsville, LA:</b> QA/QC this project includes a line and grade, preliminary and final plans for a 1.1-mile project at the intersection of Chemin Metairie Road and E. Milton Avenue. This project includes adding a two-way left turn lane to existing 2-lane and convert a single roundabout to multilane roundabout. The corridor includes subsurface drainage, restricted crossing U-turn, and raised median to prevent left turn movements.				




6/22 – Present	<b>Jimmie Davis Bridge (LA 511) (HBI) Design Build:</b> This project will replace the existing five-lane roadway with a four-lane median divided roadway with turn lanes. It will provide a new bridge crossing for LA 511 at the Red River and will also modify the existing bridge crossing for use as a linear park and provide a multiuse path. NSI is providing the traffic analysis, signal design, striping and signing plans, road design support and Bridge H&H and Scour for the river crossing. This preliminary design is being completed in support of the Design Build Proposal document. Traffic and road design support.
07/22 – Present	<b>IDIQ Contract for Design of Safety Projects (Districts 02, 61 &amp; 62):</b> This project provides safety improvements for four parishes within three Districts. The tasks included under this project are Stage 0 Feasibility Studies, Planning/Environmental, Design and construction related engineering. QA/QC.
12/12 – 07/22	<b>Design Development Engineer Manager – LADOTD</b> <ul style="list-style-type: none"> <li>• Manages a staff of Engineering Interns, Design Engineers, and Engineer Technicians. Primary roles of the section include geometric design, striping, temporary traffic control and traffic management plans.</li> <li>• Assists with the development of standard plans and engineering directive and standards for highway agency in the expertise of geometric design, complete streets, temporary traffic control, roundabouts, and pavement markings.</li> <li>• Engineer of record for Louisiana Department Of Transportation’s Pavement marking Standard Plans and Temporary Traffic Control Standard Plans.</li> <li>• Member DOTD Work Zone Task Force</li> </ul>
04/07 – 12/12	<b>HPMS/Highway Needs Engineer – LADOTD</b> <ul style="list-style-type: none"> <li>• Maintained the Highway Needs database and prepared the annual Highway Needs report to the Louisiana legislature. The Highway needs information is used as an aid to select projects in the DOTD highway program.</li> <li>• Administered and developed the Highway Performance Monitoring System for DOTD. Prepared and submitted the annual HPMS Report to FHWA. The HPMS system is used by FHWA in various appropriation formulas which helps determine Louisiana’s apportionment of the federal highway funds.</li> </ul>
1999 – 04/07	<b>Design Engineer – LADOTD</b> <ul style="list-style-type: none"> <li>• Technical expert in selecting, designing, providing and maintaining criteria and methodology relative to the MUTCD and AASHTO Geometric Guidelines to ensure that most current concepts will be applied to Department’s policies and design standards. Primary responsibilities included geometric design, capacity analysis, traffic studies, interstate signing projects, feasibility studies, scope of services negotiations, man-hour/ cost estimates, and plan reviews.</li> </ul>
06/94 – 1999	<b>Engineer Inter – LADOTD</b> <ul style="list-style-type: none"> <li>• Conducted capacity analysis and prepared intersection geometry layouts.</li> <li>• Reviewed roadway and bridge plans to determine if LADOTD and AASHTO standards and policies are adequately followed and drafted letters detailing the results of the review and offer corrective measures.</li> <li>• Prepared and updated construction cost estimates.</li> <li>• Responsible for developing construction plans to permanently sign or replace signing on controlled access highways statewide.</li> </ul>
Certifications	Traffic Engineering Process and Report (Modules 1, 2 & 3) – DOTD Safety Inspection of In-Service Bridges – National Highway Institute National Incident Management System – FEMA Crash Investigation and Reconstruction – Northwestern University





## 16. STAFF EXPERIENCE

	Firm employed by Neel-Schaffer, Inc.				
	Name	Mai Nguyen, PE		Years of relevant experience with this employer	8
	Title	Roadway Design Engineer		Years of relevant experience with other employer(s)	7
	Degree(s) / Years / Specialization		BS / 2008 / Civil Engineering		<ul style="list-style-type: none"> <li>✓ Worked on 65 Roundabouts in conformance with DOTD requirements</li> <li>✓ Has experience along LA 44 Corridor</li> <li>✓ RAB interchange experience</li> </ul>
	Active registration number / state / expiration date		PE No. 38189 / LA / 03-31-2024		
	Year registered	2013	Discipline	Civil	
Contract role(s) / brief description of responsibilities		Road Design <b>MPR 3</b>			
Experience dates (mm/yy–mm/yy)				Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).	
01/20 – Present	<b>I-20: LA 544 Overpass Replacement, Lincoln Parish, LA:</b> lead for road design <b>preliminary and final design</b> services for this project, which will replace the LA 544 Overpass diamond interchange with a <b>diamond multilane roundabout interchange on a 3% longitudinal grade</b> . The new bridge over I-20 will include sidewalks and <b>four multilane roundabouts</b> . This project includes a <b>level 2 TMP</b> .				
06/23 – Present	<b>US 90: Roundabout at LA 101: Roundabout</b> intersection preliminary and final plans, drainage, sequence of construction and TMP.				
9/22 – Present	<b>E. Milton Ave Improvements, Lafayette Parish, LA:</b> This project will widen an existing <b>Roundabout</b> at E. Milton Ave./Chemin Metairie Rd intersection from single lane to multi-lane and widen and overlay E. Milton Ave. and Chemin Metairie Rd. in Youngsville, LA. This project includes curb and gutter with sidewalks. Mai is designing this project and assisting with plan production. Established design criteria, typical roadway sections, horizontal and vertical geometry, ID structure locations and more. Ms. Nguyen is working on the roadway design for the City of Youngsville. Project includes <b>preliminary and finals plans</b> .				
02/22 – Present	<b>W. Broussard Roundabout at Duhon Rd. (LA 724):</b> This project will construct a roundabout and required drainage improvements. Review of design, assist with plan production. <b>Preliminary plans</b> completed. <b>Final design</b> ongoing.				
12/22 – Present	<b>LA 89 @ Guillot Rd Improvements:</b> Existing drainage determination, proposed drainage design and plan preparation. Includes <b>roundabouts</b> .				
08/22 – Present	<b>LA 89 at Chemin Metairie Parkway, Youngsville, LA:</b> This project will provide a new two-lane connector roadway with drainage between Chemin Metairie Parkway and LA 89. Mai is working on the roadway design for the City of Youngsville. Project includes preliminary and final plans.				
01/11 – 01/14	<b>LA 447 Corridor Study, Walker, LA (LA 16 to US 190):</b> Corridor study to evaluate corridor improvements along LA 447 between LA 16 and burgess Ave. Project included the interchange at I-12. <b>Includes multilane roundabouts</b>				
09/14 – 08/15	<b>LA 16: Roundabout @ LA 447, Livingston, LA:</b> Responsible for developing <b>roundabout preliminary roadway plans</b> in accordance with LaDOTD design guidelines, creating horizontal and vertical alignment layouts, modeling roadway to determine required right-of-way limits, developing sequence of construction, and perform hydraulic analysis.				
04/18 – Present	<b>I-49 South at Verot School Road:</b> This project which will construct 2.4 miles of mainline freeway, bridges, and an interchange at the intersection of I-49 South/US 90 and Verot School Road. Work includes a major bridge design and a roundabout at the relocated intersection of Verot Rd and South Collage Rd. NSI is designing the interstate mainline and frontage roadways ( <b>drainage, preliminary and final road design and TMP</b> ) as well as the drainage along these corridors. NSI is also completing the traffic design. <b>Includes roundabout</b>				
11/15 – 07/20	<b>Southcity Parkway Extension, Lafayette, LA:</b> This project will construct a new 1.7-mile, four-lane median divided corridor between US 167 (Johnston Street) with Kaliste Saloom Road. It includes three <b>multilane roundabout</b> intersections and <b>new bridge design</b> . The <b>roadway and drainage design</b> are being completed in conformance with LADOTD guidelines. NSI provided public outreach, environmental, road design (preliminary and final plans)and traffic services.				



02/17 – 06/17	<b>LA 6 (I-49 Interchange to LA 3278) Corridor Study in Natchitoches, LA:</b> LA 6 Corridor Study Includes analysis of proposed roundabout interchange ( <b>3 roundabouts</b> ) geometry intersections. Project Engineer responsible for line and grade geometric alternatives and cost estimates supporting the study.
07/15 – Present	<b>US 90 Pearl River Bridges Environmental Assessment, St. Tammany Parish, LA and Hancock County, MS:</b> Project includes the replacement of five bridges. This project also includes roundabout intersections. Project Engineer for over 75 line and grade alternatives. Developed horizontal and vertical alignments, considering required drainage and ROW requirements were developed and analyzed for potential environmental impacts and costs. Includes a <b>roundabout intersection</b>
05/12 – 10/14	<b>LA 44 Intersection Improvement @ LA 934, Ascension, LA:</b> Responsible for developing roadway plans in accordance with LaDOTD design guidelines, performing sub-surface drainage calculations, creating horizontal and vertical alignment layouts, modeling roadway to determined required right-of-way limits, and calculating quantities and cost estimates for bidding.
08/17 – 07/18	<b>I-10 New Orleans Master Plan:</b> Provided engineering support in development of horizontal and vertical alignments of roadways, and geometric layouts of traditional interchanges, with <b>multiple bridges, alternative intersections, ramps, roundabouts</b> , and HOV lanes to provide access to the Port of New Orleans.
09/15 – 10/17	<b>LA 22 (Dalwill to Rodger Storm) Corridor Study:</b> Includes analysis of <b>six roundabout geometry intersections</b> . Project Engineer responsible for line and grade geometric alternatives and cost estimates supporting the study.
06/13 – Present	<b>Stage 0 Feasibility Study Modern Roundabouts, Lafayette, LA:</b> Road alignment, <b>roundabout</b> layout, and design, preparing cost estimates. <b>23 separate roundabout</b> projects
02/15 – 12/16	<b>US 51 Business Corridor Study (I-12 to Coleman):</b> Includes analysis of <b>three roundabout geometry intersections</b> . Project Engineer responsible for line and grade geometric alternatives and cost estimates supporting the study.
02/15 – 10/16	<b>US 51 Corridor Study (W University to I-55):</b> Includes analysis of <b>eight roundabout geometry intersections</b> . Project Engineer responsible for line and grade geometric alternatives and cost estimates supporting the study.
09/14 – 08/15	<b>LA 27 turn lane improvements, Cameron and Calcasieu, LA:</b> Responsible for developing roadway plans following LADOTD design guidelines at three turn lanes along LA 27 at LGN plant entrances. Served as utility coordinator, and provided engineering support during construction. Also, responsible for developing utility agreement packages as part of utility coordination phase. The tasks included communication, site visitation and coordination with countless utility companies, LNG facility personnel and LADOTD to seamlessly reduce and address utility conflicts. Also, assisted the Contractor with design associated with concrete barrier, provided working drawings to assist with construction activities, and provided commercial driveway detail drawings and design at locations with large grade changes.
Career History	Mai has over 14 years of experience as a Roadway Design Engineer, including over six years working for LADOTD roadway design. She is proficient with modeling and developing roadway plans in accordance with LADOTD design guidelines. She has completed numerous roadway construction plans, including roadway alignments, cross sections, geometric details, graphical grades, drainage design, construction sequencing, striping, and signing layout, and cost estimates. She also has completed countless interchange geometric designs, roundabouts, and unconventional intersections following AASHTO and LADOTD design guidelines. She is experienced with utility coordination, creating detour plans, and working with Contractors and LADOTD Engineers to ensure the project is constructed according to plans. She has been involved with preliminary and final roadway design plans, feasibility studies, stage 0 reports, environmental assessment study, roadway concept layouts for traffic studies, develop high level cost estimates for multiple District Safety Investment Plans. She is Certified as a Work Zone Traffic Control Supervisor, Technician and Flagger.



## 16. STAFF EXPERIENCE



Firm employed by Neel-Schaffer, Inc.				
Name	<b>Chance Shuckrow, PE</b>		Years of relevant experience with this employer	9
Title	Project Engineer		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization		BS / 2014 / Civil Engineering		
Active registration number / state / expiration date		PE No. 42746 / LA / 03-31-2025		
Year registered	2018	Discipline	Civil	
Contract role(s) / brief description of responsibilities		Road Design <b>MPR 3</b>		

✓ Worked on 30 Roundabouts in conformance with DOTD requirements

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
06/23 – Present	<b>US 90: Roundabout at LA 101: Roundabout</b> intersection preliminary and final plans, drainage, sequence of construction and TMP.			
05/22 – Present	<b>E. Milton Ave. Improvements, Youngsville, LA:</b> This project will widen the existing roundabout at the intersection of E. Milton Ave. and Chemin Metairie Rd. from a single-lane to a multi-lane roundabout, as well as provide corridor improvements along E. Milton Ave. Technical lead on <b>drainage design</b> and QA/QC on line and grade, roadway design.			
08/22 – Present	<b>LA 89 at Chemin Metairie Parkway, Youngsville, LA:</b> This project will provide a new two-lane connector roadway with drainage between Chemin Metairie Parkway and LA 89. Project includes <b>preliminary and final plans and roadway drainage</b> .			
12/22 – Present	<b>LA 89 @ Guillot Rd Improvements:</b> Existing drainage determination, proposed drainage design and plan preparation. Includes roundabouts. Included tasks similar to a line and grade			
02/22 – Present	<b>W. Broussard Roundabout at Duhon Rd. (LA 724):</b> This project will construct a roundabout and required drainage improvements. <b>Includes roundabout.</b> Technical lead and engineer of record.			
10/22 – Present	<b>Velasco Crossing, Youngsville, LA:</b> This project will provide a new two-lane connector roadway with drainage between Chemin Metairie Parkway and the Existing Velasco Crossing. Project includes <b>preliminary and final plans and roadway drainage</b> .			
06/13 – Present	<b>Stage 0 Feasibility Study Modern Roundabouts, Lafayette, LA:</b> Road alignment, roundabout layout, and design, preparing cost estimates. The project includes <b>over 20 roundabout intersections</b> .			
01/11 – 01/14	<b>LA 447 Corridor Study (LA 16 to US 190), Walker, LA:</b> Project Engineer for a corridor study to evaluate corridor improvements along LA 447 between LA 16 and burgess Ave. Project included the interchange at I-12. Assisted with geometric layouts and cost estimates. <b>Includes multilane roundabouts</b> .			
08/14 – 03/19	<b>Juban Road (LA 1026) Widening, Livingston Parish, LA:</b> <b>Final design</b> for reconstruction of Juban Rd as a four-lane median divided roadway with <b>multilane roundabouts</b> intersections and a shared use path. Completed vertical and horizontal alignments and modeled the project with Bentley software, assisted with the <b>drainage design</b> and preparation of plans.			
02/20 – Present	<b>I-20: LA 544 Overpass Replacement, Lincoln Parish, LA:</b> NSI is completing the <b>preliminary and final design</b> services for this project, which will replace the LA 544 Overpass diamond interchange with a diamond roundabout interchange. The new bridge over I-20 will include sidewalks and <b>four multilane roundabouts</b> . This project includes a <b>level 2 TMP</b> .			
11/15 – Present	<b>Southcity Parkway Extension - Lafayette, LA:</b> This project will construct a new 1.7-mile, four-lane median divided corridor between US 167 (Johnston Street) with Kaliste Saloom Road. It includes three <b>multilane roundabout</b> intersections and <b>new bridge design</b> . The <b>roadway and drainage design</b> are being completed in conformance with LADOTD guidelines. NSI provided public outreach, environmental, road design and traffic services.			
09/15 – Present	<b>LA 27 Left Turn Lanes for Cameron LNG Plant in Cameron Parish, LA:</b> Assisted in <b>roadway design</b> , development of alignments, modeling, and preparation of plans.			



09/15 – Present	<b>Ham Reid at LA 3092 Intersection Improvements:</b> This project will construct a <b>roundabout</b> at the intersection of LA 3092 and Ham Reid Road. The <b>roadway and drainage design</b> were completed in accordance with LADOTD guidelines.
07/15 – Present	<b>US 71 Corridor Study, Bossier Parish, LA:</b> Assisted in geometric layout of roadway and development of alternatives.
08/17 – 03/20	<b>LA 73 Turn Lanes, Ascension Parish, LA:</b> This project will construct turn lanes at multiple locations along LA 73. The <b>roadway and drainage design</b> were completed in accordance with LADOTD guidelines.
03/15 – Present	<b>Mandeville Bypass, Mandeville, LA:</b> This project will provide a new three-mile median divided roadway with integral bike path connecting LA 1088 near its interchange with I-12 and US 190 near Fontainebleau Park. It will construct five roundabouts and multiple entrances to Pelican Park. Work includes roadway design and multiple multilane roundabouts.
03/15 – Present	<b>St. Martinville Bypass (LA 31) Environmental Assessment and Line and Grade Study, St. Martinville, LA:</b> Includes five roundabout geometry intersections at connections with state routes. Assisted in geometric design of roadway alternatives and in the development of horizontal and vertical profiles.
08/14 – 03/19	<b>I-49 South at Verot School Road:</b> This project which will construct 2.4 miles of mainline freeway, bridges, and an interchange at the intersection of I-49 South/US 90 and Verot School Road. Work includes a major bridge design and a roundabout at the relocated intersection of Verot Rd and South Collage Rd. NSI is designing the interstate mainline and frontage roadways ( <b>drainage, preliminary and final road design and TMP</b> ) as well as the drainage along these corridors. <b>Includes roundabout design.</b>
09/18 – 12/18	<b>I-20 at 220 Interchange Improvement &amp; BAFB Design-Build Project:</b> The project included preliminary plan development for completing the existing partial interchange by adding a new flyover ramp, cloverleaf ramp, modifying existing ramps, and providing a new arterial roadway with a new bridge over the Kansas City Southern railroad. Mr. Shuckrow provided design support.
08/14 – 03/15	<b>US 90 (Future I-49) LA 318 Interchange-Design Build Project:</b> The Project included a new grade separated interchange at the existing LA 318 intersection, the reconstruction of the mainline of US 90 (future I-49) and a frontage road system. NSI developed <b>interchange designs</b> for the LA 318 overpass, the US 90 WB entrance ramp, and the frontage roads. Mr. Shuckrow provided design support.
12/21 – Present	<b>I-10 I-12 College Drive Design-Build Project:</b> This project will improve the I-10 at College Drive exit by removing the weave that exists when I-10 westbound traffic crosses over several lanes to access the College Drive exit ramp. The westbound lanes for I-12 will be realigned to match the eastbound I-12 travel lanes more closely. Mr. Shuckrow is providing the independent design review for the <b>roadway design.</b>



## 16. STAFF EXPERIENCE


	Firm employed by Neel-Schaffer, Inc.				
	Name	Scott Andrepont, PE		Years of relevant experience with this employer	11
	Title	Project Engineer		Years of relevant experience with other employer(s)	4
	Degree(s) / Years / Specialization		BS / 2005 / Civil Engineering; MS / 2007 / Civil Engineering		
	Active registration number / state / expiration date		PE No. 37107 / LA / 09-30-2024		
	Year registered	2012	Discipline	Civil	
Contract role(s) / brief description of responsibilities		Road Design <b>MPR 3</b>			
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
09/22 – Present	<b>E. Milton Ave Improvements, Lafayette Parish, LA:</b> This project will widen an existing Roundabout at E. Milton Ave./Chemin Metairie Rd intersection from single lane to multi-lane and widen and overlay E. Milton Ave. and Chemin Metairie Rd. in Youngsville, LA. This project includes curb and gutter with sidewalks, as well as <b>preliminary and finals plans</b> .				
02/22 – Present	<b>W. Broussard Roundabout at Duhon Rd. (LA 724):</b> This project will construct a roundabout and required drainage improvements. Includes roundabout. Design services. <b>Preliminary plans</b> completed. <b>Final design</b> ongoing.				
12/22 – Present	<b>LA 89 @ Guillot Rd Improvements:</b> Existing drainage determination, proposed drainage design and plan preparation. <b>Includes roundabouts</b> . Included tasks similar to a line and grade, <b>preliminary and final design included</b> .				
08/22 – Present	<b>LA 89 at Chemin Metairie Parkway, Youngsville, LA:</b> This project will provide a new two-lane connector roadway with drainage between Chemin Metairie Parkway and LA 89. Project includes <b>preliminary and finals plans</b> .				
1/11 – 1/14	<b>LA 447 Corridor Study, Walker, LA (LA 16 to US 190):</b> A corridor study to evaluate corridor improvements along LA 447 between LA 16 and burgess Ave. Project included the interchange at I-12. Includes <b>multilane roundabouts</b>				
09/09 – 08/12	<b>LA 182 (North University Avenue) Widening, I-10 to West Pont des Mouton Road - Stage 0 Feasibility Study and Environmental Assessment (EA) Route, Lafayette Parish, LA:</b> Road alignment, preparing scope for utility and topographic survey, <b>roundabout layout and design</b> , and plan preparation. Project Engineer. <b>Includes roundabouts</b> .				
11/19 - Present	<b>IDIQ Contract for Design of Safety Projects (Districts 02, 61 &amp; 62):</b> This project will provide safety improvements for four parishes within three Districts. The tasks included under this project are Stage 0 Feasibility Studies, Planning/Environmental, Design and construction related engineering. Mr. Andrepont is assisting with the roadway and drainage plan production and design.				
09/09 – 08/12	<b>N. University Ave. Widening, Lafayette, LA:</b> Road alignment, preparing scope for utility and topographic survey, <b>roundabout layout</b> and design, and plan preparation. Project Engineer				
11/15 – 07/20	<b>Southcity Parkway Extension, Lafayette, LA:</b> This project will construct a new 1.7-mile, four-lane median divided corridor between US 167 (Johnston Street) with Kaliste Saloom Road. It includes <b>three multilane roundabout intersections</b> and <b>new bridge design</b> . The <b>roadway and drainage design</b> are being completed in conformance with LADOTD guidelines. NSI provided public outreach, environmental, road design and traffic services.				
01/20 – Present	<b>I-20: LA 544 Overpass Replacement, Lincoln Parish, LA:</b> NSI is completing the <b>preliminary and final design</b> services for this project, which will replace the LA 544 Overpass diamond interchange with a diamond roundabout interchange. The new bridge over I-20 will include sidewalks and <b>four multilane roundabouts</b> . This project includes a <b>level 2 TMP</b> .				

- ✓ Worked on over 50 roundabouts
- ✓ RAB interchange experience

11/13 - 04/15	<b>US 90 (Future I-49) LA 318:</b> Project Engineer supporting Interchange DB Project Road profiles, roundabout design, preparation of cost estimates. Project Engineer. <b>Includes roundabout.</b>
04/18 – Present	<b>I-49 South at Verot School Road:</b> This project which will construct 2.4 miles of mainline freeway, bridges, and an interchange at the intersection of I-49 South/US 90 and Verot School Road. Work includes a major <b>bridge design and a roundabout</b> at the relocated intersection of Verot Rd and South Collage Rd. NSI is designing the interstate mainline and frontage roadways ( <b>drainage, preliminary and final road design and TMP</b> ) as well as the drainage along these corridors. NSI is also completing the traffic design. <b>Includes roundabouts.</b>
08/12 – 03/19	<b>Juban Road Widening:</b> NSI managed the completion of the <b>roadway and drainage design services</b> for this project, which will widen LA 1026 (Juban Rd.), construct <b>three roundabouts</b> and two new frontage access roadways, with storm drainage sewer systems.
06/13 – Present	<b>Stage 0 Feasibility Study Modern Roundabouts, Lafayette, LA:</b> Road alignment, <b>roundabout layout</b> , and design, preparing cost estimates. Project Engineer. <b>Includes 23 roundabouts.</b>
03/15 - Present	<b>Mandeville Bypass, St. Tammany Parish LA:</b> Assisted in geometric layout of roadway and development of alternatives. <b>Includes roundabout</b> geometry intersections with LA 1088 and US 190. Road Design Assistance. <b>Includes 4 roundabouts.</b>
03/19 – 04/20	<b>LA 328 (Reese Street) Stage 0:</b> Created the geometry for this project which would improve LA 328 from Latiolais Drive to E. Bridge St. Signalized and <b>roundabout intersections</b> were considered. Scott completed the design criteria, typical sections, and geometry in accordance with the requirements of DOTD. He also assisted with public outreach activities. <b>Includes 3 roundabouts.</b>
10/18 – 05/19	<b>LA 182/Stone Ave. Right Turn Lane, Lafayette, LA:</b> Led the construction administration for the turn lane installation, roadway improvements, drainage, and signage. Design completed within project limits.
03/17 – 04/17	<b>LA 27/LA 1256 Turn Lane Construction, Cameron Parish, LA:</b> Assisted with the construction administration for the turn lane installation, signage, and roadway improvements.
01/12 – 04/12	<b>City of Walker - Bridge Replacement Study, Walker, LA:</b> Completed site visits to multiple bridges. He was charged with verifying the condition of bridges, prioritizing the necessary replacement of each bridge in comparison to the others, and estimating cost of replacement
04/20 – Present	<b>US 90 and FM 481 Improvement, Kinney County, TX:</b> QA/QC of Striping, Singing, and High Friction Surface course plans.
09/09 – 08/12	<b>N. University Ave. Widening, Lafayette, LA:</b> Road alignment, preparing scope for utility and topographic survey, roundabout layout and design, and plan preparation. Project Engineer
07/13 – 09/13	<b>LA 1088 Traffic Corridor Study for LA DOTD in St. Tammany Parish, LA:</b> Assisted in the geometric layout for 3 Alternatives for the improvements of LA 1088. Each alternative <b>included roundabouts</b> at determined intersection with J-turns as well as complete streets with combinations of bike paths/multi-use paths / sidewalks along the corridor. Design Assistance. <b>Includes roundabouts.</b>
Career History	Mr. Andrepont is a design engineer and has been assigned to a variety of projects which include safety projects, roadway design, drainage design, foundation design and other civil engineering projects. His duties include design and analysis, preparation of construction plans, and specifications. He also has experience providing engineering design support during construction. He is also an ATSSA – Work Zone TCS/TCT/Flagger.



## 16. STAFF EXPERIENCE

	Firm employed by Neel-Schaffer, Inc.				
	Name	Joshua Schexnider, PE		Years of relevant experience with this employer	6.5
	Title	Project Engineer		Years of relevant experience with other employer(s)	14
	Degree(s) / Years / Specialization		BS / 2016 / Civil Engineering; BS / 2000 / General Studies		
	Active registration number / state / expiration date		PE No. 45891 / LA / 03-31-2024		
	Year registered	2021	Discipline	Civil	
Contract role(s) / brief description of responsibilities		Road Design			
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
02/20 – Present	<b>I-20: LA 544 Overpass Replacement, Lincoln Parish, LA:</b> NSI is completing the <b>preliminary and final design</b> services for this project, which will replace the LA 544 Overpass diamond interchange with a diamond <b>roundabout interchange</b> . The new bridge over I-20 will include sidewalks and <b>four multilane roundabouts</b> . This project includes <b>a level 2 TMP</b> .				
06/22 – Present	<b>W Broussard Road @ Duhon Road Roundabout Design:</b> Existing drainage determination, proposed drainage design and plan preparation. <b>Includes roundabouts. Preliminary plans</b> completed. <b>Final design</b> ongoing.				
09/22 – Present	<b>E. Milton Ave Improvements, Lafayette Parish, LA:</b> This project will widen an existing Roundabout at E. Milton Ave./Chemin Metairie Rd intersection from single lane to multi-lane and widen and overlay E. Milton Ave. and Chemin Metairie Rd. in Youngsville, LA. This project includes curb and gutter with sidewalks, as well as <b>preliminary and finals plans</b> .				
08/22 – Present	<b>LA 89 at Chemin Metairie Parkway, Youngsville, LA:</b> This project will provide a new two-lane connector roadway with drainage between Chemin Metairie Parkway and LA 89. Project includes <b>preliminary and finals plans</b> .				
12/22 – Present	<b>LA 89 @ Guillot Rd Improvements:</b> Existing drainage determination, proposed drainage design and plan preparation. <b>Includes roundabouts</b> . Included tasks similar to a line and grade				
04/18 – Present	<b>I-49 South at Verot School Road, Lafayette, LA:</b> Providing design support for the road design for this project which will construct 2.4 miles of mainline freeway, an interchange at the intersection of I-49 South/US 90 and Verot School Road, and a <b>roundabout</b> . Project involves at grade railroad crossings.				
10/19 – Present	<b>East Mandeville Bypass, St. Tammany Parish:</b> This project will construct a new 2-mile four lane median divided roadway with multilane roundabouts intersections at LA 1088 and US 190. Engineering Intern <b>Includes roundabout</b> .				
08/16 – Present	<b>Southcity Parkway Extension – Lafayette, LA:</b> Assisted in preparation of plans. Engineering Intern. Project <b>includes 3 multilane roundabouts</b> .				
05/16 – 07/16	<b>Juban Road (LA 1026) Widening, Livingston Parish, LA:</b> Assisted in preparation of plans. Engineering Intern. This project <b>includes roundabouts</b> .				
02/17 – Present	<b>US 90 Bridges Environmental Assessment, St. Tammany Parish, LA:</b> Assisted with preparation of plans. <b>Includes a roundabout</b> .				
08/17 – 01/20	<b>Bossier Parish Roadway, Bridge and Culvert Engineering, Damage Assessment and Reconstruction Services:</b> This project included approximately 90 project sites consisting of bridges, roadway reconstruction, patching and overlays, and new drainage structures. Assisted with the design and plan production.				
08/17 – 03/20	<b>LA 73 Turn Lanes:</b> This project will construct turn lanes at multiple locations along LA 73 in Ascension Parish. The <b>roadway and drainage design</b> were completed in accordance with LADOTD guidelines.				
06/16 – 06/16	<b>LA 22 Corridor Study – St. Tammany Parish, LA:</b> Assisted with preparation of plans. Engineering Intern <b>Includes 6 roundabouts</b> .				
Career History	Josh is a design engineer and has been assigned to a variety of projects which include safety projects, roadway design, drainage design, and other civil engineering projects. His duties include design and analysis, preparation of construction plans, and specifications. He also has experience providing engineering design support during construction. He is also an ATSSA – Work Zone TCS/TCT/Flagger.				

- ✓ Worked on over 20 Roundabouts in conformance with DOTD requirements
- ✓ RAB interchange experience



## 16. STAFF EXPERIENCE



Firm employed by Neel-Schaffer, Inc.				
Name	<b>Phil Graves, PE</b>		Years of relevant experience with this employer	2
Title	Senior Project Manager		Years of relevant experience with other employer(s)	25
Degree(s) / Years / Specialization		BS / 1997 / Civil Engineering		
Active registration number / state / expiration date		PE No. 29640 / LA / 09-30-2025		
Year registered	2001	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities		Constructability		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
02/22 – Present	<b>W. Broussard Roundabout at Duhon Rd. (LA 724):</b> This project will construct a roundabout and required drainage improvements. Performed Constructability and Biddability reviews of the plans. <b>Preliminary and final road design.</b>			
09/22 – Present	<b>E. Milton Ave. Roundabout Widening and Corridor Improvements, Youngsville, LA:</b> Constructability and Biddability reviews. Project includes line and grade tasks (establish design criteria, develop typical sections, horizontal geometry, vertical geometry), preliminary and final plans for a 1.1-mile project at intersection of Chemin Metairie Road and E. Milton Avenue. This project includes adding a two-way left turn lane to existing 2-lane and convert a single roundabout to multilane roundabout. The corridor includes subsurface drainage, restricted crossing U-turn, and raised median to prevent left turn movements. <b>Preliminary and final road design.</b>			
02/22 – Present	<b>I-20: LA 544 Overpass Replacement, Lincoln Parish, LA:</b> NSI is designing the preliminary and final design services for this project, which will replace the LA 544 Overpass diamond interchange with a diamond roundabout interchange. The new bridge over I-20 will include sidewalks and four multilane roundabouts. This project includes a <b>level 2 TMP</b> . Project includes line and grade tasks (establish design criteria, develop typical sections, horizontal geometry, vertical geometry) Constructability and Biddability reviews. <b>Preliminary and final road design.</b>			
10/09 – 04/12	<b>I-55 Rehabilitation, Tangipahoa Parish, LA:</b> Area Engineer. As Area Engineer helped oversee four separate projects that rubbilized and overlaid Interstate 55 from US 51 (Morrison Boulevard) to the Mississippi state line. The rubbilization process is a complex technique that breaks existing concrete into small pieces, creating a better base for the asphalt overlay.			
02/15 – 02/16	<b>I-12 Interchange Improvements, Tangipahoa Parish, LA:</b> Area Engineer. Converted the conventional signalized on/off ramps of I-12 at US 51-X to roundabout configurations (two total) and installed a roundabout at the intersection of US 51-X and Club Deluxe Road.			
02/15 – 04/16	<b>LA 637 (W. 10th Street) Widening Project, St. John the Baptist Parish, LA:</b> Area Engineer. Provided widening services for LA 637 from US 61 (W. Airline Hwy) to LA 44 (River Road, including new subsurface drainage system).			
11/10 – 11/11 08/16 – 08/17 10/19 – 05/22	<b>Safety Cable Barrier Installation Projects, Tangipahoa, St. John the Baptist, and Livingston Parishes, LA:</b> Area Engineer. Area Engineer for three separate projects that installed safety cable barriers along I-12, I-10, and I-55 in Tangipahoa, St. John the Baptist, and Livingston parishes.			
01-03 – 12/04	<b>LA 964 Widening, East Baton Rouge Parish, LA:</b> Project Engineer. Project Engineer for this project that reconstructed and realigned LA 964 from US 61 (Scenic Hwy) to LA 64 (Church Street).			
08/02 – 12/04	<b>Intelligent Transportation Systems (ITS), Phases 1 and 2, East Baton Rouge Parish, LA:</b> Project Engineer. Project Engineer for two separate projects that installed ITS devices, fiber, and buildings and tied it in to the Transportation Management Center (TMC).			






03/05 – 06/06	<b>US 61 (Airline Hwy) Intersection Improvements, East Baton Rouge Parish, LA:</b> Project Engineer. Project Engineer for this intersection conversion project. Converted the conventional 4-way signalized intersection to a Continuous Flow Intersection (CFI) at LA 3246 (Siegen Lane).
08/06 – 08/07	<b>LA 19 (Main Street) Widening Project, East Baton Rouge Parish, LA:</b> Project Engineer. Project Engineer for project to widen LA 19 from Lavey Lane to Wimbish Drive.
03/06 – 03/07	<b>US 61 (Airline Hwy) Widening Project, East Baton Rouge Parish, LA:</b> Project Engineer. Widened US 61 from LA 73 (Jefferson Hwy) to US 190 (Florida Blvd).
12/06 – 01/09	<b>LA 946 (Joor Road) Widening, East Baton Rouge Parish, LA:</b> Project Engineer. Project Engineer for this project to reconstruct and realign LA 946 from Mickens Road to LA 408 (Hooper Road), including the construction of a new bridge over the Comite River
10/09 – 02/12	<b>I-55 Rehabilitation, Tangipahoa Parish, LA:</b> Area Engineer. Helped oversee four separate projects that rubbilized and overlaid Interstate 55 from US 51 (Morrison Boulevard) to the Mississippi state line. The rubbilization process is a complex technique that breaks existing concrete into small pieces, creating a better base for the asphalt overlay.
Career History	Mr. Graves joined Neel-Schaffer in 2022 and serves as a Senior Project Manager based in the firm's Baton Rouge (LA) office. Phil joined Neel-Schaffer shortly after retiring from the Louisiana Department of Transportation and Development after 25 years of service, the last 13 as the District 62 Area Engineer in Livingston and St. Helena parishes. He will be a part of Neel-Schaffer's Louisiana Transportation Department, providing quality assessment/quality control and constructability reviews. He will also help the firm expand and develop its Construction Engineering and Inspection services throughout Louisiana in both the Transportation and Water Resources sectors. Phil has extensive experience in laboratory sampling and testing, roadway and bridge construction oversight and management, roadway and bridge maintenance management, roadway structure design, and roadway preservation management



## 16. STAFF EXPERIENCE

	Firm employed by Neel-Schaffer, Inc.				
	Name	Ronald Kirk Gallien, PE, PTOE		Years of experience with this firm/employer	2
	Title	Senior Project Manager		Years of experience with other firm(s)/employer(s)	36
	Degree(s) / Years / Specialization		BS / 1984 / Civil Engineering		
	Active registration number / state / expiration date		PE No. 23428 / LA / 09-30-2025; PTOE No. 1288		
	Year registered	1989	Discipline	Civil	
	Contract role(s) / brief description of responsibilities		TMP QAQC <b>MPR 6</b>		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
02/20 – Present	<b>I-20 at LA 544 Overpass Replacement, Lincoln Parish, LA:</b> This project will replace the existing LA 544 bridge crossing and interchange with a new bridge and roundabouts. This project includes four multilane roundabouts located in a tight project area with many constraints and large grade changes. The roundabouts will connect ramps and service roads with adjacent businesses. The project includes new bridge with sidewalk over I-20. The entire project limits are complete street compliant which means it provides facilities for all users. Tasks similar to Line and Grade completed: Established design criteria, typical roadway sections, horizontal and vertical geometry, ID structure locations and more. Mr. Gallien provided <b>TMP</b> review.				
08/20 – Present	<b>I-10 &amp; I-12 College Drive Flyover Ramp Design Build, Baton Rouge, LA:</b> Project Engineer for Interchange Modification Report, <b>Transportation Management Plan</b> and ITR of <b>MOT</b> Plans for the proposed College Drive Ramp improvements. The IMR was prepared in accordance with DOTD’s TEPR and FHWA Policy Points. The IMR analysis was performed using Vissim software. In addition, the <b>TMP</b> was prepared for the various maintenance of traffic phases. Analysis used in the <b>TMP</b> included HCS analysis for detour evaluations and Dynameq (Mesoscopic Modeling) for evaluating various MOT strategies. The project also includes <b>signal design</b> .				
6/22 – Present	<b>Jimmie Davis Bridge (LA 511) (HBI) Design Build:</b> This project will replace the existing five-lane roadway with a four-lane median divided roadway with turn lanes. It will provide a new bridge crossing for LA 511 at the Red River and will also modify the existing bridge crossing for use as a linear park and provide a multiuse path. NSI is providing the traffic analysis, signal design, striping and signing plans, road design support and Bridge H&H and Scour for the river crossing. This preliminary design is being completed in support of the Design Build Proposal document. Traffic and road design support.				
1994 – 2007	<b>DOTD District 05 – District Traffic Operations Engineer</b> <ul style="list-style-type: none"> <li>Performed numerous traffic studies and composed numerous traffic engineering reports regarding traffic control such as traffic signal installations and modifications, signing, pavement markings, and establishing speed limits.</li> <li>Annually investigated and analyzed existing traffic control devices at locations identified as having a high potential for safety improvement and recommended and implemented modifications to improve traffic flow and safety at these locations.</li> <li>Coordinated and supervised upgrading all traffic signals (approximately 275) in District 05 from electromechanical to electronic controller operations.</li> <li>Worked closely with private developers and public entities regarding access to proposed developments to ensure conformance with DOTD standards</li> <li>Completed construction lay-out of pavement markings on numerous highway construction projects, including centerline passing/no passing zone markings on overlay projects.</li> <li>Served as the legal expert in traffic engineering for District 05, and responded to interrogatories and requests for production, gave depositions, and testified in court</li> </ul>				



1994 – 2007	<p><b>DOTD District 05 – District Traffic Operations Engineer Continued:</b></p> <p><b>Projects:</b></p> <ul style="list-style-type: none"> <li>• <b>Computerized Traffic Signal System in District 05:</b> Provided technical assistance to the consultant during design of the project as well as construction personnel during installation of the field equipment. After completion of the project, implemented and used the computerized traffic signal system to manage traffic operations on US 165.</li> <li>• <b>I-20 Elevated Section Rehabilitation Ouachita Parish:</b> Provided technical assistance regarding interstate lane closures and traffic control during design and construction of the project.</li> <li>• <b>I-20 Mississippi River Bridge Modifications:</b> Provided technical assistance regarding interstate lane closures and traffic control during design and construction of the project.</li> </ul>
2007 – 2014 2018 – 2020	<p><b>DOTD District 05 – Assistant District Administrator of Operations</b></p> <ul style="list-style-type: none"> <li>• Supervised traffic engineering and operations, district-wide roadway maintenance, bridge inspection and maintenance, and roadside development activities in District 05.</li> <li>• Reviewed traffic impact studies and reviewed and approved access connection, utility, and project permits in District 05.</li> <li>• Planned, managed, and directed all emergency response activities in District 05, which included emergency response, repairs, and recovery related to hurricanes, flooding, tornados, and winter weather.</li> </ul>
2014 – 2018 2020 – 2022	<p><b>DOTD Headquarters – Assistant Secretary of Operations</b></p> <ul style="list-style-type: none"> <li>• Completed traffic studies and prepared written Traffic Engineering reports. Specific duties of traffic engineering studies included compiling filed data, performing peak period observations, performing analyses, QA/QC of field data and analyses, forming conclusions and recommendations based on the results of analyses, and preparation of technical reports. Studies included developments such as a 600-student middle school, a 400-student charter school, commercial subdivision, and a 650-unit student housing facility near Louisiana Tech University. Traffic studies and Traffic Engineering written reports also included modifications to existing traffic control devices such as traffic signal installations and modifications, signing, and pavement markings.</li> <li>• Compiled field data and assisted with analysis of data and preparation of a written report to create a District 05 Safety Investment Plan for DOTD District 05, 4400010504, Task Order No. H.014295.1. This included analysis of crash data, determination of crash patterns, determination of appropriate safety countermeasures, benefit/cost analyses, compilation of results and compilation of recommended safety improvements for 32 state and local segments as well as 99 state and local intersections.</li> <li>• Prepared Level 4 Transportation Management Plan for the I-10 and I-12 College Drive Flyover Design Build project, H.013897.6. Preparation of the plan included identifying the scope, goals, and constraints of the project, performing traffic and safety analyses, and assessing detour routes to effectively manage traffic during the project. Assisted with developing plans for stakeholder and public involvement during the project as well as the development of plans for maintenance of traffic, temporary traffic control, and work zone management strategies to be implemented during the project.</li> <li>• For the Garrett Road-Kansas Lane Connector project, H.007300, assisted in preparation of a Level 4 Transportation Management Plan. Assisted with designing temporary traffic control and temporary traffic signal construction and operations required for the project. Reviewed plans and performed QA/QC for temporary and permanent traffic control throughout the entire project limits.</li> </ul>
Certifications	<p>Traffic Engineering Process and Report (Modules 1, 2 &amp; 3) – DOTD  Safety Inspection of In-Service Bridges – National Highway Institute  National Incident Management System – FEMA  Crash Investigation and Reconstruction – Northwestern University</p>



## 16. STAFF EXPERIENCE


	<b>Firm employed by Neel-Schaffer, Inc.</b>				
	Name	<b>Jonathan Duhe, PE, PTOE, RSP</b>		Years of experience with this firm/employer	11
	Title	Project Engineer		Years of experience with other firm(s)/employer(s)	1
	Degree(s) / Years / Specialization		BS / 2011 / Civil Engineering		
	Active registration number / state / expiration date		PE No. 41047 / LA / 03-31-25; PTOE No. 4418; RSP No. 282		
	Year registered	2016	Discipline	Civil Engineering	
	Contract role(s) / brief description of responsibilities		Traffic Signals and Timing <b>MPR 6</b>		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
02/22 – Present	<b>W. Broussard Roundabout at Duhon Rd. (LA 724):</b> This project will construct a roundabout and required drainage improvements. Includes roundabout. Completed the horizontal and vertical alignments (line and grade). <b>Preliminary and final plans.</b>				
02/20 – Present	<b>I-20 at LA 544 Overpass Replacement, Lincoln Parish, LA:</b> This project will replace the existing LA 544 bridge crossing and interchange with a new bridge and roundabouts. This project includes four multilane roundabouts located in a tight project area with many constraints and large grade changes. The roundabouts will connect ramps and service roads with adjacent businesses. The project includes new bridge with sidewalk over I-20. The entire project limits are complete street compliant which means it provides facilities for all users. Tasks similar to Line and Grade completed: Established design criteria, typical roadway sections, horizontal and vertical geometry, ID structure locations and more. <b>Mr. Duhe provided signal design review. Preliminary and final plans.</b>				
08/22 – Present	<b>LRSP Ardenwood Dr Road Diet, Baton Rouge, LA:</b> Project Engineer, Responsible for Data Collection (Traffic Counts and Peak Hour Observations), Traffic Forecasting, Safety Analyses, Corridor Operational Analyses (HCS, Sidra), Safety Analyses, Traffic Report Preparation				
07/21 – Present	<b>FYA Signal Improvement (LCG), Lafayette, LA:</b> Project Engineer. Oversaw development of signal plans to upgrade 28 intersections to include flashing yellow arrow <b>signal heads</b> as well as backplates.				
09/21 – Present	<b>Harding Blvd at I-110, Baton Rouge, LA:</b> Traffic Engineer. Performing a traffic study along Harding Boulevard between Rosewood Street and Merle Gustafson Drive including the I-110 Ramps in an effort to improve capacity. Assisted with data collection and Initial Data Collection Report.				
09/20 – Present	<b>College Drive Enhancement Project, Baton Rouge, LA:</b> Traffic Engineer. Performing a traffic study along College Drive between Perkins Road and Bawell Street/Bankers Avenue including the I-10 Ramps in an effort to improve capacity and safety. Assisted with data collection including peak period observations and travel time runs. Also performed safety analysis along the College Drive corridor.				
06/20 – Present	<b>I-10/12 College Drive Flyover Design Build, Baton Rouge, LA:</b> Traffic Engineer. Performing a traffic study at the I-10/12 merge in an effort to improve capacity and safety. Assisted with uncalibrated VISSIM model. Assisted with safety analysis and <b>signal design.</b>				
04/20 – 06/21	<b>District 05 Safety Investment Plan District 05, LA:</b> Traffic Engineer. Assisted with safety analysis including reviewing crashes utilizing LaDOTD’s CATScan tool and performing benefit-cost analysis of potential safety improvements. Also assisted with report preparation.				
02/19 – 03/20	<b>District 07 Safety Investment Plan District 07, LA:</b> Traffic Engineer. Assisted with safety analysis including reviewing crashes utilizing LaDOTD’s CATScan tool and performing benefit-cost analysis of potential safety improvements. Also assisted with report preparation.				
11/17 – 04/19	<b>District 08 Safety Investment Plan District 08, LA:</b> Traffic Engineer. Assisted with safety analysis including reviewing crashes utilizing LaDOTD’s CATScan tool and performing benefit-cost analysis of potential safety improvements. Also assisted with report preparation.				



11/16 – 04/19	<b>LA 385 (Ryan St) Feasibility Study, Lake Charles, LA:</b> Traffic Engineer. Assisted with intersection analysis including Vistro analysis. Assisted with safety analysis including reviewing crashes, creating collision diagrams, identifying conflict points, and using LaDOTD's CATScan tool to analyze safety. Also assisted with report preparation.
02/16 – 10/17	<b>LA 6 Feasibility Study, Natchitoches, LA:</b> Traffic Engineer. Assisted with intersection analysis including Sychro and Sidra analysis. Assisted with safety analysis including reviewing crashes, creating collision diagrams, and using the HSM Predictive method to analyze safety of potential alternatives. Also assisted with report preparation.
02/15 – 12/17	<b>US 51 Business (I-12 to Coleman) Corridor Study:</b> Traffic Engineer. Assisted with report preparation.
06/15 – 07/16	<b>LA 431 at LA 934 Intersection Improvements, Ascension Parish, LA:</b> Performed a traffic signal timing study for 5 intersections along LA 431 and signal design plans for the intersection of LA 431 at LA 934 in association with the proposed intersection improvements.
04/18 – 06/19	<b>LA 1256 Adaptive Signal System, Cameron Parish, LA:</b> Engineer for modification of 5 traffic signals along LA 1256 from Dave Dugas Road to I-10 in Sulphur, LA in order to implement the SynchronGreen Adaptive traffic signal system.
03/20 – 06/20	<b>Braud Rd at Germany Rd Temp. Signal Design, Gonzales, LA:</b> Project Engineer developed signal layout and timing parameters for temporary signal. Signal design included developing Clearance Calculations, utilizing Synchro for signal timing, designing in MicroStation software, developing Intersection Quantities, and creating a Traffic Signal Inventory)
03/19 – 11/19	<b>District 08 Signal Timing Study, Natchitoches, LA:</b> Project Engineer Oversaw Data Collection (TMCs, Observations, Inventory, Travel Runs, etc), Signal Warrant Analyses, Intersection Operations Analyses (Synchro), Developed new signal timing and TSIs
03/19 – 11/19	<b>US 61 Signal Timing Study, Baton Rouge, LA:</b> Project Engineer Oversaw Data Collection (TMCs, Observations, Inventory, Travel Runs, etc), Signal Warrant Analyses, Intersection Operations Analyses (Synchro), Developed new signal timing and TSIs
04/19 – 11/19	<b>LA 14 Signal Timing Study, Lake Charles, LA:</b> Project Engineer Oversaw Data Collection (TMCs, Observations, Inventory, Travel Runs, etc), Signal Warrant Analyses, Intersection Operations Analyses (Synchro), Developed new signal timing and TSIs
12/19 – Present	<b>US 80 Feasibility Study, Stage 0/Traffic &amp; Safety Study, Houghton, LA:</b> Stage 0 Report in support of safety improvements along US 80 corridor, specifically in the vicinity of Bellevue Road and Mid-South Loop Road. All analysis performed in HCS for this study. The traffic study was performed in accordance with DOTD's TEPR. Project includes signalized intersections. Oversaw Intersection Operational Analyses (HCS), safety analysis, alternative development, and traffic report preparation.
Career History	Jonathan joined Neel-Schaffer in 2013 and has nearly a decade of experience working on a wide range of traffic and transportation projects. He has worked on many intersection/corridor signal timing studies and signal design projects and other traffic engineering related projects for both public and private projects. He is experienced with numerous traffic engineering software packages include HCS, SYNCHRO, VISTRO, Tru-Traffic (TSPPDraft), and SIDRA. Jonathan has completed training and has experience using LADOTD's CAT Scan safety tool. He is a certified Professional Traffic Operations Engineer (PTOE), a Road Safety Professional (RSP1) and has completed LADOTD's Traffic Engineering Process and Report (TEPR) training.



## 16. STAFF EXPERIENCE

	Firm employed by Neel-Schaffer, Inc.				
	Name	Charles Adams, PE, PTOE		Years of experience with this firm/employer	16
	Title	Senior Project Engineer		Years of experience with other firm(s)/employer(s)	14
	Degree(s) / Years / Specialization		BS / 1992 / Civil Engineering		
	Active registration number / state / expiration date		PE No. 27440 / LA / 9-30-25; PTOE No. 878		
	Year registered	1997	Discipline	Civil	
Contract role(s) / brief description of responsibilities		Traffic Control Plans / TMP / Signal Design <b>MPR 6</b>			
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
01/23 – Present	<b>Wemple Road &amp; Innovation Drive Study, Bossier, LA:</b> NSI performing a traffic evaluation to determine whether a new N/S road would be justified between Wemple Road and Innovation Drive. Mr. Adams is performing the study and analyzing the impact on the surrounding intersections. Project Manager.				
10/22 – Present	<b>East-West Connector (Winfield Road Congestion Relief):</b> NSI Performing a Traffic Study and Line and Grade for a new east-west corridor through Bossier Parish. Charles is overseeing the Traffic Study portion of the project and all intersection analyses for the four major intersections. Project Engineer.				
08/20 – Present	<b>I-10 &amp; I-12 College Dr. Flyover Ramp, Baton Rouge, LA:</b> NSI is performing IMR, <b>TMP</b> , preliminary design, final design, review of TTC plans, and signal design. Charles is reviewing all TTC plans and developing preliminary signal plans.				
02/18 – Present	<b>Kansas Lane-Garrett Road Connector, Monroe, LA:</b> NSI performing <b>TMP</b> for project as well as developing temporary signal design plans, developing permanent signal design plans, and developing fiber plans to relocate impacted fiber. Charles is preparing the <b>TMP</b> and all signal design plans. Project Manager				
12/17 – Present	<b>South city Parkway Extension, Lafayette, LA:</b> This project will construct a new 1.7 – mile, 4 lane median divided corridor between US 167 (Johnston Street) with Kaliste Saloom Road. The roadway and drainage design are being completed in conformance with LADOTD guidelines. Includes 5 multilane roundabouts. Charles is providing the Traffic Control Plans.				
07/16 – Present	<b>I-49 at Verot School Rd, Lafayette, LA:</b> NSI is preparing design plans and reviewing the TTC plans and the TMP. Mr. Adams is reviewing the TTC plans and developing the <b>TMP</b> for the project.				
08/12 – 03/19	<b>LA 1026 (Juban Rd) Widening, Livingston Parish, LA:</b> Highway widening project with <b>roundabouts</b> . Prepared TCP				
12/17 – Present	<b>Southcity Parkway Extension, Lafayette, LA:</b> This project will construct a new 1.7 – mile, 4 lane median divided corridor between US 167 (Johnston Street) with Kaliste Saloom Road. The roadway and drainage design is being completed in conformance with LADOTD guidelines. <b>Includes 5 multilane roundabouts</b> . Charles is providing the Traffic Control Plans.				
08/08 – 08/12	<b>LA 33 Roundabout Study, Ruston, LA:</b> NSI provided a completed Traffic Study related to the <b>proposed roundabouts</b> at LA 33 and I-20 WB off-ramp and I-20 at the I-20 EB off-ramp in Ruston, LA. Sr. Project Manager				
02/22 – Present	<b>W. Broussard Roundabout at Duhon Rd. (LA 724):</b> This project will construct a <b>roundabout</b> and required drainage improvements. <b>Includes roundabout</b> . Completed the horizontal and vertical alignments (line and grade).				
11/21 – 12/21	<b>Swan Lake Road Speed Study, Bossier City, LA:</b> NSI performed speed studies along Swan Lake Road from US 80 to Modica Lott Road. Mr. Adams oversaw the analyses and prepared the report of findings. Project Manager.				
10/21 – 05/22	<b>Hurricane Ida Emergency Lighting and Signage Project, New Orleans, LA:</b> NSI performed day inspections of all signs and day and night inspections of all streetlights within Zone 3. Charles coordinated and oversaw all operations of the project as well as participated in inspections along the interstate system.				
08/21 – 12/21	<b>LA 840-6 at Oliver Road, Monroe, LA:</b> NSI performed a traffic study for the intersection to determine whether left turn lane phasing would be appropriate for the Oliver Road approaches. Charles oversaw the analyses for the project. Project Manager.				



10/21 – 12/21	<b>Wemple Road at Old Brownlee Road Intersection Safety Study, Bossier City, LA:</b> NSI performed a Safety Study to evaluate the existing conditions of the intersection and to determine whether modifications would be beneficial. Mr. Adams performed all analyses for the study and oversaw the data collection for the project. Project Manager.
05/21 – 08/21	<b>Tulane Avenue Chick-fil-A, New Orleans, LA:</b> NSI performed a Traffic Assessment and circulation assessment for a new Chick-fil-A restaurant in the City of New Orleans. Charles performed analyses, observations and oversaw the circulation assessment. Project Manager.
04/21 – 08/21	<b>Signal Design for Airline Drive and Barclay Blvd, Bossier, LA:</b> NSI developed traffic signal plans for the new intersection of Airline Drive and Barclay Blvd. Charles was the designer and developed signal phasing and timings for the project. Project Manager.
02/21 – 05/21	<b>LA Tech Student Housing Study, Ruston, LA:</b> NSI performed a traffic study for new student housing complex that would serve LA Tech University. Charles performed all intersection analyses for the project. Project Manager
09/20 – 06/21	<b>Venture Global LNG Traffic Study, Plaquemines, LA:</b> NSI performed numerous traffic assessments for a new LNG facility along LA 23 in south Plaquemines Parish. Mr. Adams performed intersection analyses, prepared TTC plans, and reviewed construction sequencing to reduce the impact on the traveling public.
09/20 – Present	<b>W Esplanade Ave at Carrollton Street, Metairie, LA:</b> NSI is preparing preliminary and final signal design plans for the intersection of W Esplanade Ave and Carrollton Street. Mr. Adams is preparing the signal plans. Project Manager.
08/20 – 10/20	<b>St Vincent Avenue at 84th Street, Shreveport, LA:</b> NSI prepared preliminary and final traffic signal plans for the intersection. Mr. Adams prepared preliminary and final signal plans. Project Manager.
11/19 – 07/20	<b>Golden Pass LNG Safety Study, Port Arthur, TX:</b> NSI performed traffic safety assessments along FM 87 for the entrances to the LNG facility as well as developing signing plans and lighting plans for each entrance. Project Manager.
03/19 – 07/19	<b>Remco Drive Extension, Haughton, LA:</b> NSI performed a traffic study to determine feasibility for extending Remco Drive from US 80 to Bodcau Station Road. Mr. Adams performed observations and analyses. Project Manager.
01/19 – 03/20	<b>LA 3 at Walter O Bigby Carriageway, Bossier City, LA:</b> NSI performed Signal and Sign Design. Charles developed signal timings and signal phasing as well as prepared the traffic signal plans for the intersections of LA 3 at Walter O Bigby Carriageway and US 80 at Hamilton Road. Project Manager.
06/18 – 08/18	<b>Linton Road Extension, Bossier Parish, LA:</b> NSI performed traffic study to determine feasibility of extending Linton Road to Fairburn Road. Mr. Adams performed analyses. Project Manager.
06/17 – 03/18	<b>Port Access Improvements, New Orleans, LA:</b> NSI performed extensive analyses and developed alternative accesses from I-10 to the Port of New Orleans. Charles performed observations and analyses.
01/17 – 07/17	<b>TCP for Transmission Line Installations, Terrebonne &amp; Assumption Parishes, LA:</b> NSI prepared TTC plans for numerous installation sites throughout both parishes. Charles developed and prepared all TTC plans. Project Manager.
12/19 – Present	<b>US 80 Feasibility Study, Stage 0/Traffic &amp; Safety Study, Haughton, LA:</b> Stage 0 Report in support of safety improvements along US 80 corridor, specifically in the vicinity of Bellevue Road and Mid-South Loop Road. All analysis performed in HCS for this study. The traffic study was performed in accordance with DOTD's TEPR. Project includes signalized intersections. Charles performed traffic engineering and public outreach.
Career History	Over the past 30 years, Charles has consistently managed and designed projects for the City of Bossier City as well as for the Bossier Parish Police Jury. During 2008 – 2015 he served as Neel-Schaffer's Shreveport Office manager and continues to maintain the relationships gained from that experience. He has established relationships in the local community and knowledge of the project area. His experience in the area includes Traffic Data Collection, Traffic Signal Timing, Traffic Signal design, Traffic Operations, Traffic Safety, ITS and Transportation Engineering. He manages a wide range of local and regional projects that vary in complexity from developing traffic control plans for major construction projects and traffic signal timing plans to performing round-about feasibility studies and other traffic related studies for both public and private clients. Prior to joining NSI, Charles was employed by LADOTD as a District Traffic Engineer in the Bossier District and then as the State Traffic Engineer. Mr. Adams is a certified Professional Traffic Operations Engineer and has completed DOTD's Traffic Engineering Process and Report (TEPR) training.



## 16. STAFF EXPERIENCE




Firm employed by Neel-Schaffer, Inc.					
Name	<b>Jacob Thiaville, EI</b>			Years of relevant experience with this employer	1
Title	Project Engineer			Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization		BS / 2022 / Civil Engineering			
Active registration number / state / expiration date		EI No. 35368 / LA / 09-30-23			
Year registered	2023	Discipline	N/A		
Contract role(s) / brief description of responsibilities		Road Design			
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
11/22 – Present	<b>East West Corridor Winfield Rd Ext.:</b> Created Concept typical sections, templates to run model, corridor and surface, set up limits of construction and req'd ROW, line and grade design, plan production, Helped with traffic analysis report graphics for ADT and queue lengths. TOOLS: Inroads SS2 Modeler (Create Template and Roadway Designer), Inroads Surface, Copying 1300x400' Clipping boundary and Trimming				
05/22 – 02/23	<b>Iberia Parish Signing and Striping, Iberia Parish, LA:</b> Created CL Alignment, Completed all regulatory signing and quantities located all existing regulatory signs and determined if they needed to be relocated, removed or replaced. Determined Type and Size of Sign from MUTCD, Quantified all regulatory signs for urban and rural areas. Tools: InRoads alignment tracking, Excel, MicroStation, MUTCD, Google Earth, LA Tax Assessor				
05/22 – 05/23	<b>Downtown Connector-BR Sidewalk, Greenway, LA:</b> Quantities and Basic Drafting. Completed summary sheets. Tools: InRoads alignment tracking, Excel, Google Earth				
05/22 – Present	<b>LSU Lab School SRTS Sidewalk Project:</b> Plan production and quantities. Completed all quantities and summary sheets. Tools: InRoads alignment tracking				
10/22 – Present	<b>E Milton Ave Roundabout @ Chemin Metairie Rd, Youngsville, LA:</b> Inlet Spacing and Storm Sewer System design with DOTD hydraulics software, Utility Coordination, Plan production. Delineation of Drainage Areas, determination of drainage parameters, designing pipe networks to accommodate constraints, created DOTD utility conflict matrix spreadsheet and proposed utility layout (plan) to show what utilities need to be relocated. Tools: InRoads ss10, RAB Layout Guide Sheet, AASHTO, DOTD Roadside Design Manual, HYDRWIN, Excel, Hydraulics Manual, Rational Method Spreadsheet.				
05/22 – Present	<b>W Broussard Roundabout @ Duhon Rd, Lafayette, LA:</b> Inlet spacing and pipe system (1st Time), basic plan/profile drafting including (focus on Inlet Spacing): CB-06, CB-08, low points, stations, drainage areas. Tools: InRoads ss10, HYDRWIN, Hydraulics Manual, Rational Method Spreadsheet				
07/22 – Present	<b>Eden Isles Roadway, HWY 11 and Lakeview Dr:</b> Assisted with proposal design alternatives. Assisted drafting 3 alternative designs with u-turn bulb outs for PC and WB67 vehicles, annotating the sheets for stage 0. Tools: InRoads ss2, DOTD Roadside Design Manual, AASHTO				
08/22 – Present	<b>Chemin Metairie Pkwy @ Guillot Rd (Roundabout), Lafayette, LA:</b> Plan production, sequence of construction temporary signing design and AutoTURN. Using MUTCD and standard plans to come up with temporary signing layout for construction phases, running AutoTURN with WB67 design vehicle through all the phases of construction. Tools: InRoads ss2 alignment tracking, MUTCD, LaDOTD Standard Plans, AutoTURN				
01/23 – Present	<b>I-49 at Verot School Rd Interchange Design, Lafayette, LA:</b> Completed concrete joint layout for interstate ramps and turnouts, Used OpenRoads Sign CAD to create interstate guide signs. Tools: Openroads SignCAD, MUTCD, DOTD Sign Manual, SignCAD user guide, google earth, excel, LADOTD Standard plans				
05/22 – Present	<b>LA 544 and I20 (Overpass Replacement 4 RAB):</b> Signing quantities and plan production. Checking sign quantities and basic mark ups, Project was near completion when I arrived Tools: InRoads ss2 alignment tracking, Excel, MicroStation, MUTCD				
Career History	Jacob recently joined our New Orleans office as an Engineer Intern working in our Transportation Department. He was an intern in the Baton Rouge office from May 2022 through December 2022. After graduating in December from Louisiana State University with a Bachelor of Science in Civil Engineering, Jacob joined the firm on a full-time basis.				





## 16. STAFF EXPERIENCE


	<b>Firm employed by Neel-Schaffer, Inc.</b>				
	Name	<b>Jeanne Zeringue, EI</b>		Years of relevant experience with this employer	1
	Title	Engineer Intern		Years of relevant experience with other employer(s)	6
	Degree(s) / Years / Specialization		BS / 2017 / Civil Engineering		
	Active registration number / state / expiration date		EI No 33366 / LA / 09-30-25		
	Year registered	2017	Discipline	N/A	
	Contract role(s) / brief description of responsibilities		Road Design		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
12/23 – Present	<b>Earhart Expressway, New Orleans, LA:</b> Review of existing studies, evaluation of proposed improvements, design support for traffic modeling, assisted with the Stage 0 report.				
10/23 – 01/24	<b>Calcasieu Parish Master Transportation Plan, Calcasieu Parish, LA:</b> Prepared a summary of Parish implemented ordinances pertaining to transportation needs and design. As a part of the summary recommendations for improvements were also provided.				
10/23 – 01/24	<b>Jimmie Davis Bridge, Design Build, Bossier City and Shreveport, LA:</b> Assisted in roadway drainage calculations and QA/QC including the use of Hydrwin. Also assisted in addressing plan review comments and revisions.				
10/23 – 01/24	<b>I-49 at Verot School Road, Lafayette, LA:</b> Assisted with design and plan development. Assisted with drainage calculations using Hydrwin.				
10/23 – Present	<b>E. Milton Ave. Roundabout Widening and Corridor Improvements, Youngsville, LA:</b> design support. this project includes a line and grade, preliminary and final plans for a 1.1-mile project at the intersection of Chemin Metairie Road and E. Milton Avenue. This project includes adding a two-way left turn lane to existing 2-lane and convert a single roundabout to multilane roundabout. The corridor includes subsurface drainage, restricted crossing U-turn, and raised median to prevent left turn movements.				
10/23 – Present	<b>US 90: Roundabout at LA 101:</b> Roundabout intersection preliminary and final plans, drainage, sequence of construction and TMP.				
09/22 – 08/23	<b>Grant Assistance, St. Martin Parish, LA:</b> Assisted the parish in FEMA grant applications for HMGP and BRIC programs for various projects such as residential elevations and roadway elevations. Both the residential and roadway locations in these applications were proposed to raise the finished floor and roadway elevations to be above that of the FEMA base flood elevations to reduce repetitive losses in these particular areas. Grant application assistance included the preparation of FEMA toolkit-based Benefit Cost Analysis for each individual grant application.				
02/22 – 05/22	<b>Coulee Mine East Regional Detention Facilities, Lafayette, LA:</b> Assisted professional engineer in preparing updated surface models and hydraulic calculations for three proposed detention facilities along Coulee Mine in Lafayette Parish, including plan preparation and USACE permit drawings. Coordination with Lafayette Consolidated Government to ensure all review comments were addressed.				
02/22 – 10/23	<b>City of Scott Municipal Management, Scott, LA:</b> Assist Professional Engineer in municipal management for the City of Scott. This included various functions such as attending council meetings, coordination with developers, development reviews of proposed site plans, plats, construction plans, and drainage impact analyses to ensure all developments were in accordance with City ordinances. Also assisted the City in multiple grant applications, including LaDOTD Transportation Alternative Program, Keep Louisiana Beautiful, FHWA Recreational Trails Program, LaDEQ Water Sector Program, and FEMA Hazard Mitigation Programs. Responsibilities also included coordinating public events and forums for local input and feedback on areas such as drainage, pedestrian facilities, and future visions for the community.				
04/23 – 06/23	<b>Calcasieu Parish Police Jury Drainage Master Plan, Calcasieu Parish, LA:</b> Assisted in technical writing, including modeling result discussions and ordinance improvements in hopes of establishing consistent baseline ordinances to protect against flooding and create a more resilient system parish wide.				



05/21 – 12/21	<b>Rim and Veterinarian Road Bridge Replacements, Lafayette, LA:</b> Prepared hydraulic models for both existing bridge conditions in GeoHec-Ras. Delineation of watersheds to determine peak flows for desired design storm per Lafayette Consolidated Government requirements. Prepared the proposed hydraulic model for multiple proposed replacement structures for each site.
04/21 – 11/21	<b>Mire X-Press Mart, Mire, LA:</b> The development of a convenience store in Mire. Performed drainage calculations necessary to meet reduction requirements and determining system sizing and routing within the site. Analyzed autoturn movements to meet the access restrictions of designated right in/right out movements from the proposed site. Also, the autoturn movements were analyzed to determine best placement for underground fuel tank storage. This project included coordination with LaDOTD and the contractor to make sure the site was in accordance with all site requirements. Coordinated with sub-contractor for required traffic counts needed from Mire Elementary.
01/20 – 12/20	<b>Bottle Art Lofts, Phases 1 and 2, Lafayette, LA:</b> The development of housing for those artists in the Lafayette area under a certain income threshold. Assisted in civil site development including drainage design, drainage calculations, and a drainage impact analysis. Also, coordinated with contractors for RFIs received on materials and conducted site visits for final walk throughs.
04/18 – 04/19	<b>Acadia Parish Landfill Road Replacement, Egan, LA:</b> Assisted Professional Engineers in the vertical and horizontal alignments needed for the desired roadway improvements including the implementation of paved roadways on site. This project included minor drainage improvements resulting from roadway alignment.
06/19 – 10/19	<b>Drainage Improvements, Crowley, LA:</b> Assisted Professional Engineers in analyzing the City of Crowley's existing drainage system and determining areas of needed improvement. Assisted in the determination of upgrades needed to increase capacity by increasing culvert sizing and subsurface flow patterns for increased efficiency.
Career History	Ms. Zeringue joined Neel-Schaffer in 2023 and serves as an Engineer Intern based in the firm's Lafayette (LA) office. She has seven years of civil engineering planning and design experience, and has worked on a wide variety of water and roadway projects. She also assists the Louisiana Transportation group with feasibility studies, as well as roadway and drainage design projects across Louisiana and Arkansas. Jeanne is proficient in MicroStation, InRoads, Civil3D/AutoCAD, Hydraflow Hydrographs 2007, Datumate/DatuSurvey, GeoHec-Ras/Hec-Ras/Hec-HMS, FEMA toolkit-based Benefit Cost Analysis, and the Microsoft Office suite.



## 16. STAFF EXPERIENCE

	<b>Firm employed by</b>				
	Name	<b>Steve Hazen, PE</b>		Years of experience with this firm/employer	15
	Title	Senior Engineer		Years of experience with other firm(s)/employer(s)	34
	Degree(s) / Years / Specialization		BS / 1974 / Civil Engineering		
	Active registration number / state / expiration date		PE No. 18087 / LA / 03-31-2025		
	Year registered	1979	Discipline	Civil	
	Contract role(s) / brief description of responsibilities		Bridge H&H/Scour		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
02/22 – Present	<b>W. Broussard Roundabout at Duhon Rd. (LA 724):</b> This project will construct a roundabout and required drainage improvements. Includes roundabout. Completed the horizontal and vertical alignments (structural design.).				
09/18 – 12/18	<b>I-220 / I-20 Interchange Improvement &amp; BAFB Design-Build Proposal, Bossier Parish, LA:</b> Project Engineer. Design of preliminary roadway drainage and H&H analysis for Musselshell Bayou and its tributaries and HEC-RAS analysis of Red Chute Bayou to check for effect of road embankment on flood stages. Project included both bridges and box culverts. Preliminary design was in accordance with LA Standard Specifications for Roads and Bridges as well as LA DOTD Bridge Design Manuals.				
02/10 – 10/11	<b>Off System Highway Bridge Program; Sparks Davis Rd Bridge over Tributary to Buchanan Bayou, Caddo Parish, LA:</b> Project Engineer. Work included HEC-RAS analysis of existing bridge opening and bridge replacement alternative plans. Existing bridge was a three-span concrete bridge, and the recommended alternative was four reinforced box culverts. Inspection and design were in accordance with LA Standard Specifications for Roads and Bridges as well as LADOTD Bridge Design Manuals.				
02/10 – 02/11	<b>Off System Highway Bridge Program; White Springs Bridge over Wallace Bayou, Caddo Parish, LA:</b> Project Engineer for replacement of 2-lane, 164' long bridge. New bridge is a 180' long and 40' wide concrete quad beam bridge with 20' approach slabs. Work included HEC-RAS analysis of bridge opening and bridge plans. Design was in accordance with LA Standard Specifications for Roads and Bridges as well as LA DOTD Bridge Design Manuals.				
02/10 – 06/10	<b>Off System Highway Bridge Program; South Lakeshore Drive Bridge over Tributary to Cross Lake, Caddo Parish, LA:</b> Project Engineer. Work included HEC-RAS analysis of existing bridge opening and bridge plans for the proposed replacement of two, 21-ft span concrete bridge. Recommendation was 4 reinforced box culverts. Inspection and design were in accordance with LA Standard Specifications for Roads and Bridges as well as LADOTD Bridge Design Manuals.				
11/06 – 12/09	<b>Off System Highway Bridge Program; Country Road Bridge over Garrett Creek, Jackson Parish, LA:</b> Project Engineer. Hydraulic design of Off-system Bridge Replacement in Jackson Parish, using HEC-RAS. Project included design of bridge replacement for a 25 ft x 57 ft timber bridge with four 10x8 reinforced concrete box culverts. Inspection and design were in accordance with LA Standard Specifications for Roads and Bridges as well as LA DOTD Bridge Design Manuals.				
06/06 – 01/08	<b>Off System Highway Bridge Program; Morningside Drive Bridge over Virginia Avenue Ditch, Caddo Parish, LA:</b> Project Engineer. Work included HEC-RAS analysis of bridge opening and bridge replacement alternative plans. Project included the replacement of a 20-ft single span concrete bridge with recommended alternative of two reinforced box culverts or 2 reinforced concrete pipe culverts based on hydraulic and economic analysis. Inspection and design proposals were in accordance with LA Standard Specifications for Roads and Bridges as well as LADOTD Bridge Design Manuals.				



01/04 – 09/05	<b>US 167 - Jackson Parish; Quitman, Lincoln Parish, LA:</b> Project Engineer responsible for improvements including widening existing 2-lane roadway to a 4-lane roadway with grassed median, performed hydraulic analysis of existing structures and prepared improvements to same and hydraulic design of slab span bridges and culverts for project. Use of HEC-RAS and LADOTD Hydraulics Programs as well as Louisiana Standard Specifications for Roads and Bridges as well as Louisiana DOTD Bridge Design Manuals.
04/02 – 12/04	<b>Environmental Assessment for Tarbutton Road Interchange and Frontage Road; Route I-20, Ruston, LA:</b> Project Engineer evaluated existing bridge structures at LA 544, LA 149 and Tarbutton Road. Prepared schematic design modification or replacement of existing bridges and estimated construction costs. Inspection, review, and design was in accordance with LA Standard Specifications for Roads and Bridges as well as LA DOTD Bridge Design Manuals.
1998 – 1999	<b>La 3032 for LADOTD:</b> Project Engineer responsible for new bridge approach structure for existing LA 3032 main span bridge over Red River. Evaluated existing structure for possible continued use. There were concerns about existing bridge deck as well as the silicon steel beams in the approach spans. Inspection and review were in accordance with LA Standard Specifications for Roads and Bridges as well as LA DOTD Bridge Design Manuals.
02/96 – 03/97	<b>Clyde E. Fant Memorial Parkway – Northern Extension Phase IIIA/IIIB Bridge over Cross Bayou, Shreveport, LA:</b> Project Engineer. Design of bridge structures for 632 ft., 4-lane plus median structure across Cross Bayou and a 300 ft., 4-lane grade separation bridge with horizontal and vertical curve. Design utilized both the LA Standard Specifications for Roads and Bridges as well as LA DOTD Bridge Design Manuals.
06/89 – 08/90	<b>Off-System Highway Bridge Program:</b> Project Engineer. Hydraulic design for Off-System bridge replacements utilizing HEC-1 analysis of existing bridge openings of bridges in Webster Parish. Project design was in accordance with LA Standard Specifications for Roads and Bridges as well as LA DOTD Bridge Design Manuals.
1989 – 1990	<b>LA 1 highway bridge over Twelve Mile Bayou; Shreveport, LA:</b> Project Engineer responsible for bridge inspection and evaluation to estimate the extent to which the existing bridge required repair or replacement. Responsible for Preliminary plans for rehabilitation of existing structure. The replacement bridge was widened to include taper to approach ramps to I-220 just the north of Twelve Mile Bayou. Inspection and Preliminary design were in accordance with LA Standard Specifications for Roads and Bridges as well as LADOTD Bridge Design Manuals.
1988 – 1989	<b>I-49, Urban Section 5: LADOTD Bridge Design, Shreveport, LA:</b> Project Engineer responsible for the design of elevated sections of I-49 roadway as a part of interchange with Inner Loop Expressway. Design was in accordance with LA Standard Specifications for Roads and Bridges as well as LA DOTD Bridge Design Manuals.
01/87 – 01/89	<b>US 371 / US 84 Bridge over Red River at Coushatta, LA:</b> Project Engineer responsible for design of steel cross frames and lateral bracing for non-redundant steel plate girders, concrete approach piers designed to withstand barge impacts and voided concrete slab approach span design. Pier design included steel H-pile designed for barge impact and design of concrete tremie seals. Other work included detailing of miscellaneous steel items, quality control of drawings and review of shop drawings. Two designs were provided for the bridge: one being a concrete segmental bridge and the other a steel plate girder bridge. The 2 column approach bents were connected with concrete walls. The project was designed using both the LA Standard Specifications for Roads and Bridges as well as LADOTD Bridge Design Manuals.
01/83 – 12/85	<b>Boyce-Shreveport Highway; LA 490 to LA 119; Natchitoches Parish, I-49 Section 4:</b> Project Engineer. Assisted in the design of bridge structures at 3 grade separations and several stream crossing bridge structures for 3 rural segments of I-49. Design was in accordance with LA Standard Specifications for Roads and Bridges as well as LA DOTD Bridge Design Manuals.
Career History	Mr. Hazen joined Neel-Schaffer in 2008 following many years with Demopolis & Ferguson Associates, Inc. Mr. Hazen has worked as a Structural, Hydraulics and Soils Engineer with a primary focus on highway and railway bridges, structural design for buildings, facilities, hydrological analysis and drainage design for projects.



## 16. STAFF EXPERIENCE



Firm employed by				
Name	<b>David Hebert, PE</b>		Years of experience with this firm/employer	12
Title	Senior Project Manager		Years of experience with other firm(s)/employer(s)	15
Degree(s) / Years / Specialization		BS / 1996 / Civil Engineering		
Active registration number / state / expiration date		PE No. 30416 / LA / 03-31-2025		
Year registered	2002	Discipline	Civil	
Contract role(s) / brief description of responsibilities		Bridge Design		
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
04/98 - 05/02	<b>US Highway 82 crossing of the Mississippi River, Greenville, MS and Lake Village, AR:</b> Design Structural Engineer for Mississippi River bridge crossing on US Highway 82. The new bridge had a total length of 2.6 miles. Mr. Hebert assisted in the design of all approach spans on both the Arkansas and Mississippi side. The bridge superstructure included 72-inch concrete bulb tee girders (typical span lengths = 150 feet) and welded plate girders (maximum span length = 360 feet). The bridge substructure included concrete drilled shaft pile caps and piers. The bridge design included HS-25 truck loading, seismic loading and barge impact loading. Provided value engineering during final design and construction cost estimating phase by evaluating superstructure and substructure for spans adjacent to main span for a cost saving of approximately \$4 million.			
10/04 – 10/05	<b>Emergency Bridge Repair: I-20 Westbound Over US Hwy 51, Jackson, MS:</b> Lead Structural Engineer for emergency repair for major interstate bridge. The bridge repair included repair to damaged steel cap for “pin and link” girder bridge using phase construction design sequence to maintain traffic flow on interstate. Two temporary steel bridge piers were installed at each bent to relieve stress on existing piers to allow for repairs. A detailed sequence for construction was provided to allow traffic flow on the bridge at all times.			
07/99 - 08/01	<b>Old Agency Road over I-55, Ridgeland, MS:</b> Design Structural Engineer for bridge replacement over interstate. The bridge superstructure included 72-inch bulb tee girders (typical span length = 150 feet). The bridge substructure included concrete drilled shaft pile caps and piers. The bridge had a skewed alignment and phased construction. Phase 1 included partial bridge construction with sheet pile shoring at each abutment to allow the original bridge to remain in service. Phase 2 included demolition of the original bridge and the completion of construction.			
01/03 – 05/03	<b>SR 74 over Ragsdale Creek Project, Hamilton, AL:</b> Lead Engineer / Engineer of Record for new bridge replacement over Ragsdale Creek. The bridge superstructure included concrete Type II pre-stressed girders. The bridge substructure included concrete drilled shafts with integral bents. The bridge utilized phased construction. Phase 1 included partial bridge construction to allow the original bridge to remain in service. Phase 2 included demolition of original bridge and the completion of construction.			
03/01 - 05/05	<b>Bridge Replacement on Alliance Road Over Warrior River, Maxine, AL:</b> Design Structural Engineer for new three (3) span bridge over navigable channel. The bridge had a total length = 720 feet. The bridge superstructure included steel plate girders with inspection platforms beneath the deck. The bridge substructure included concrete drilled shaft pile caps and piers designed for barge impact.			
02/01 - 08/01	<b>Bridge Across Spillway on Eastbound Spillway Road, Pearl River Valley Water Supply District, Flowood, MS:</b> Design engineer for a new 7 span bridge (total length = 507 ft) for spillway road addition south of existing spillway. The bridge superstructure included concrete pre-stressed girders. The bridge substructure included new piers supported atop existing spillway apron.			
06/04 - 01/10	<b>MS SR 463 over CN/IC Railroad and Hoy Road, Madison, MS:</b> Design engineer for preliminary phase of a new curved and skewed 7 span bridge (total length = 1,280 ft) over rail. The bridge superstructure included steel plate girders. The bridge substructure included concrete drilled shaft pile caps and piers. The bridge included architectural features, raised sidewalks and a bike path. Part of the preliminary design phase included several 3D renderings and cost estimates.			



11/01 - 02/03	<b>Connector Road Bridge over Natchez Trace Parkway, Ridgeland, MS:</b> Design engineer for new bridge over Natchez Trace Parkway. The bridge superstructure included a post tensioned, concrete box girder. The bridge substructure included steel H-pile caps and integral bents.
01/99 - 11/03	<b>Mississippi State Route 57 Bridge Replacements, Waynesboro, MS:</b> Design engineer for (3) bridge replacements along MS SR 57. Each bridge was similar in design. The bridge superstructure included pre-stressed concrete girders. The bridge substructure included precast prestressed concrete pile caps and integral bents.
01/97 - 06/97	<b>Existing Bridge Load Rating, MDOT:</b> Engineer for a bridge rating contract for state of Mississippi. Reviewed construction drawings and inspection reports & performed bridge load ratings for existing bridges across state. Bridge ratings were focused on superstructure for: concrete (box girders, prestressed concrete girders) and steel (plate girders, box girders, truss, bascule). All bridges were rated for HS-20 truck loading and results were presented to client in tables noting substandard bridges.
07/97 - 02/98	<b>US Highway 84 Bridge Replacements, MDOT:</b> Design engineer for four bridge replacements along US Highway 84. Each bridge was similar in design. The bridge superstructure included pre-stressed concrete girders. The bridge substructure included precast prestressed concrete pile caps and integral bents.
06/01 - 10/04	<b>Airport Parkway Project, MDOT, Pearl, MS and Jackson, MS:</b> Design engineer for preliminary phase of large airport parkway / corridor project. The project included several bridges and ramps along proposed parkway from Jackson International Airport in Pearl, MS to downtown Jackson, MS.
12/20 - 12/20	<b>Old West Point Road Bridge Replacement, Starkville, MS:</b> QC for 3 span, pre-stressed concrete beam, replacement bridge across an existing creek.
02/22 - 03/22	Propst Park Bridge Replacement, Columbus, MS: QC for single span, precast/prestressed concrete beam, replacement bridge across an existing creek.
02/22 - 03/22	<b>Bridge Evaluation/Rating Project, Ag-Con, LLC and LPL Solar LLC (Lightsource bp Ventress Solar Farm), Ventress, LA:</b> Project Manager and Structural Engineer for field inspection, evaluation and rating of four (4) existing private bridges to be utilized during construction services by prime contractor, LPL Solar, LLC (LPL), and subcontractor, Ag-Con for construction services conducted as part of a 345MWdc Solar Farm Project. The existing bridges were evaluated following LADOTD Bridge Design and Evaluation Manual (BDEM) procedures applying legal truck loading as well as six (6) construction vehicles utilized by the contractors.
Career History	Mr. Hebert joined Neel-Schaffer in 2020 and serves as the Structural Engineering Manager for the NSI's Southwest Region. He previously worked in NSI's Jackson office from 1997-2005. Based in the Baton Rouge (LA) office, David has over 25 years of experience as a Civil/Structural Engineer Manager, responsible for engineering estimates, department coordination, and coordination with other engineering disciplines and on multi-disciplined industrial projects. Mr. Hebert is experienced in highway bridge design, including simple and continuous steel plate girder (150 feet to 360 feet) spans; simple and continuous (for live load only) pre-stressed concrete girder (40 feet to 150 feet) spans; post-tensioned concrete box girder spans; and simple pre-stressed concrete box girder spans. His experience in bridge foundation design includes steel pile, pre-stressed concrete pile and reinforced concrete drilled shaft foundations. David is also experienced in discipline lead activities, including project scope development, schedule status and budget management, client interaction and lead supervision of engineers and designers for all project phases for midstream, petrochemical and pulp and paper industries. He has experience in conducting structural field inspections on various types of industrial structures (providing structural analysis, assessments, repair recommendations, and procedures); pipe and vessel permanent / temporary support structure design (including steel structures and shallow / deep foundations); and large industrial tank foundation design (ring wall/earth foundations). He is experienced in lift designs of skid supported equipment and modular steel construction and in repairs to large pressure vessel and tank support structures while remaining in operation that require creative temporary support methods and detailed sequences of construction.



## 16. STAFF EXPERIENCE



### Firm employed by Crescent Engineering & Mapping, LLC

Name	<b>Dennis M. Hymel, Jr., PE</b>		Years of relevant experience with this employer	2.5
Title	Supervising Engineer/Manager		Years of relevant experience with other employer(s)	17
Degree(s) / Years / Specialization			BS / 2009 / Civil Engineering	
Active registration number / state / expiration date			PE No. 38172 / LA / 09-30-2025	
Year registered	2013	Discipline	P.E./Civil Engineering	
Contract role(s) / brief description of responsibilities			Roadway and Bridge Design Supervisor. Dennis' experience fulfills <b>MPR 4</b> .	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
09/16 – 08/21 <i>(previous employer)</i>	S.P. H.011152, I-12 Widening (US 190 to LA 59), St. Tammany Parish, LA (LADOTD) – Project Manager/Engineer of Record. Responsible for all roadway design including H&V geometrics and drainage, prepared Level 4 TMP and construction phasing plans. Designed single slope TL-4 median barriers on concrete footings, special median barrier transitions for lighting, overhead signs and ITS/DMS, prepared ERDD document and EOR for all permanent interstate signing; Bridge Design Engineer and QC for the widening of Pontchatolawa Creek (25’ skewed RC Slabs) and Tammany Trace bridges (AASHTO Type III prestressed girders with varying skewed, bobtail spans), LRFR for all structures. Performed Construction Support Services. Design completed under an accelerated project schedule.
09/18 – 08/21 <i>(previous employer)</i>	S.P. H.001344, US 190: LA 437 to US 190 BUS (Ph. 1), St. Tammany Parish (LADOTD) – Supervising/QC Engineer. QC/QA of urban roadway design elements including horizontal and vertical geometry, intersection design, oversight of roadway plan production for one mile, 5-lane urban roadway reconstruction. Responsible for bridge design report, urban bridge design, and QC of bridge plan development and LRFR for a horizontally curved, superelevated, 1400-footlong bridge over the Bouge Falaya River using LG 36 and LG 54 prestressed concrete girders, rectangular column bents, low water pier foundations. Coordinated utility conflicts and relocations, prepared cost estimates.
03/14 – 08/21 <i>(previous employer)</i>	S.P. H.004113, I-12 to Bush: LA 3241 (LA 435 to LA 40/41), St. Tammany Parish, LA (LADOTD) – Project Manager/ Engineer of Record. Performed field and office QC of topographic surveys, lead the design team as EOR and was responsible for all roadway design elements including hydraulics, roadway H&V geometrics, superelevation, intersection design, R-CUT intersections, prepared Level 3 Traffic Management Plan, prepared roadway plans, served as bridge design QC engineer for twin 4-span AASHTO Type III girder bridges over Talisheek Creek, oversaw entire plan production for 5.5-mile, greenfield, new corridor including a four-lane rural roadway from LA 435 to Bush, LA.
04/22 – Ongoing	LA 3127 Widening (LA 20 to LA 3213), St. James Parish, LA (St. James Parish) – Project Manager/EOR. Responsible for entire project including QC of topographic surveys, oversight of traffic analysis, roadway widening design, drainage and hydraulic design, H&V geometry. Project involves widening existing roadway to 4-lane divided and includes two multi-lane roundabouts, geotechnical, environmental for over 4 miles of arterial widening.
05/22 - Ongoing	EN22-0181, Rousseau Rd. Bridge over Tchefuncte River, St. Tammany Parish, LA (St. Tammany Parish Government) - Project Manager/Engineer of Record. Performed review of topographic surveys, QC of roadway design, H&V geometrics, hydraulics, EOR for Urban bridge design elements including special span/bents, LRFR of replacement bridge and rehabilitated structure, bridge rehabilitation design using steel framed helper bents, environmental assistance, and subconsultant coordination for the replacement of the existing 4-span vehicular near Covington, LA.
03/22 - Ongoing	S.P. H.015333, H.015404, H.015407 – Tangipahoa I/JA Bridge Replacements, Tangipahoa Parish, LA (LADOTD) – Project Manager/EOR. Performed QC review of topographic surveys, EOR for hydraulic analysis, EOR for roadway and urban and rural bridge design elements including H&V geometry, roadside drainage, QA of plan production, LRFR for RCB structures for the replacement of 5 bridge sites Parish-wide in Tangipahoa with RC Slab spans and RCB's.




04/16 – 08/21 <i>(previous employer)</i>	S.P. H.013116, LA 20 Widening (LA 307 to S. Vacherie), St. James & Lafourche Parishes (LADOTD) – Project Manager, Lead Engineer. Participated in Road Safety Assessment (RSA) and development of low-cost safety improvements, Prepared Stage 0 Feasibility study, Environmental Checklists, oversight of topo surveys and SUE, led roadway design efforts including alternatives analysis, H&V geometry, drainage design, Traffic Management Plans, oversaw plan production for Preliminary and Final Plans, performed bridge design QC of 120' RC Slab bridge for the 2.7 mile safety widening project including addition of shoulders and improved geometry.
05/20 – 08/21 <i>(previous employer)</i>	Contract 44-17598 – Rural Bridge Replacement Initiative Phase I (47 bridge structures), Districts 04, 05, 08, 58 (LADOTD) – Project Manager/Engineer of Record. Led contract negotiations, performed QC review of topographic surveys, served as the EOR for roadway, geometrics, and bridge design elements including hydraulics analysis, scour, horizontal/vertical alignments, Level 1&2 TMP, bridge design & LRFR (non-standard structures) including LG-25 girders, oversight of geotechnical services and environmental permitting, SOV's, CE document preparation and permitting the replacement of 47 bridge structures in northern Louisiana containing Fifteen (15) State Project Numbers.
09/18 – 01/20 <i>(previous employer)</i>	MA-18-07, Braud Rd. & Germany Rd. Roundabout, Ascension Parish, LA (Ascension Parish) – Quality Control Engineer. Responsible for QC reviews of all design elements and plan preparation associated with the single lane roundabout at the intersection of Braud Rd. and Germany Rd. in Ascension Parish. QC review elements included H&V alignments, roundabout geometrics, drainage design and inroads modeling. Also responsible for the review of the utility conflict matrix and final right-of-way maps.
01/12 – 12/17 <i>(previous employer)</i>	07-EXT-22, Bayou Gardens Blvd. Extension (LA 660 to LA 316), Terrebonne Parish, LA (Terrebonne Parish) – Project Manager/Engineer of Record. Performed QC of topographic surveys, led roadway design including drainage, H&V geometry, superelevation, subsurface storm drainage, TMP, utility locates, utility relocation and coordination. Performed bridge design including curved, superelevated RC Slabs on special skew, LRFR, scour analysis, special pile supported approach slabs, oversight of CE&I and construction support services, LADOTD permitting and traffic approval for the 1.6 mile, 4-lane Urban roadway extension including signals and turn lanes on LA 660 and LA 316.
09/17 – 08/21 <i>(previous employer)</i>	MA-17-01, Roddy Road Widening (LA 935 to LA 621), Ascension Parish, LA (Ascension Parish Government) – Project Manager/Lead Engineer. Responsible for all roadway widening design, supervised roadway and bridge plan production, quality control engineer for 160' RC Slab bridge design and hydraulics, supervised all SUE efforts and SUE EOR for QL D-A for the 1.5 mile widening project in Gonzales, LA.
09/16 – 08/19 <i>(previous employer)</i>	West 15th St. Bridge/Mile Branch Creek, St. Tammany Parish, LA (City of Covington) – Project Manager/Engineer of Record. Responsible for topographic surveys, urban roadway and bridge design including roadway geometrics, TS&L, special span & bent design, 54" (TL-4) railing on bridge deck, special approach slabs and as-designed LRFR for the six-span (two continuous three-span units) 120' bridge replacement with integral 8' cantilevered bike path on bridge over Mile Branch Creek.
07/12 – 08/15 <i>(previous employer)</i>	S.P. 713-29-0103, Tiger Drive Bridge over Bayou Lafourche, Lafourche Parish, LA (LADOTD) – Project Manager/Lead Engineer. Performed roadway and bridge design including drainage, H&V geometry, urban bridge design included special 23' spans, curved approach slabs, special bents for utility accommodations, steel cantilever bulkheads, reviewed shop drawings, provided construction support for the 183' long bridge replacement with signal upgrades.






## 16. STAFF EXPERIENCE

		Firm employed by Crescent Engineering & Mapping, LLC			
		Name	Paul I. Olivier, PE	Years of relevant experience with this employer	1
		Title	Engineering Manager	Years of relevant experience with other employer(s)	13
		Degree(s) / Years / Specialization	BS / 2010 / Civil Engineering		
		Active registration number / state / expiration date	PE No. 39967 / LA / 03-31-2024		
		Year registered	2015	Discipline	Civil Engineering
		Contract role(s) / brief description of responsibilities	Roadway Design and Bridge Design		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
02/20 – 01/23 <i>(previous employer)</i>	SP H.012812, US 190 Roundabouts @ Northshore, Camp Villere, St. Tammany Parish, LA (LADOTD) – Project Manager. Supervising Engineer for the design and plan preparation of a multi-lane roundabout at the intersection of US 190 and Northshore Blvd. and a single lane roundabout at the intersection of US 190 and Camp Villere Rd. in Slidell, LA. Provided quality control and design oversight of several project elements including H&V alignments, drainage design, striping/signing, sequence of construction, roundabout geometrics, autoturn movements, graphical grades, concrete joint layouts, typical sections, inroads modeling, quantity calculations and required right-of-way impacts. Provided environmental support with preparation of project exhibits to be utilized for Public Meetings.				
09/18 – 01/23 <i>(previous employer)</i>	S.P. H.001344, US 190: LA 437 – US 190 BUS (Ph. 1), St. Tammany Parish, LA (LADOTD) – Project Manager/Engineer of Record. Engineer of Record responsible for the widening of a 0.9 mile stretch along US 190 from LA 437 to US 190 (Bus.) in Covington, LA. Oversaw plan preparation and the design of project elements such as H&V alignments, superelevation design, roadway geometrics, existing and design drainage maps, striping/signing, typical sections, curb details, graphical grades, concrete joint layouts and inroads modeling of a 5-lane, raised, divided median urban arterial roadway in Covington, LA. Provided quality control of bridge plans, project pay items, quantity take-offs and cost estimate. Also responsible for the development of a utility conflict matrices and Level 4 TMP Document including the analysis and justification for the temporary closure of LA 21 at the bridge crossing at US 190. Also provided Construction Support in the form of reviewing and responding to RFI’s, contractor submittals and shop drawings.				
09/16 – 10/22 <i>(previous employer)</i>	S.P. H.011152, I-12 Widening (US 190 to LA 59), St. Tammany Parish, LA (LADOTD) – Lead Project Engineer. Led roadway design including clear & grubbing, H&V geometrics and drainage, prepared Level 4 TMP and construction phasing plans. Oversaw Inroads modeling and roadway preparation, guardrail design, temporary ramp design, led roadway plan production, performed quantity calculations, and oversaw plan development, assisted with construction support, RFI and shop drawing reviews, contractor coordination via Falcon, for the 4-mile widening of I-12 near Covington, LA. Design completed under an accelerated project schedule.				
08/21 – 02/23 <i>(previous employer)</i>	S.P. H.014407, LA 621 at Roddy Rd. Roundabout, Ascension Parish, LA (Ascension Parish) – Project Manager/Supervising Engineer. Oversaw the plan preparation and all design elements required for a single lane roundabout at the intersection of LA 621 and Roddy Rd. in Ascension Parish. Performed quality control of design elements such as H&V alignments, roundabout geometrics, drainage design, autoturn movements, sequence of construction, typical sections and inroads modeling. Also responsible for leading coordination efforts with a traffic subconsultant regarding the development of a Roundabout Report for LADOTD.				
09/18 – 01/20 <i>(previous employer)</i>	MA-18-07, Braud Rd. & Germany Rd. Roundabout, Ascension Parish, LA (Ascension Parish) – Project Manager/Supervising Engineer. Oversaw the plan preparation and all design elements required for a single lane roundabout at the intersection of Braud Rd. and Germany Rd. in Ascension Parish. Design elements included H&V alignments, roundabout geometrics, drainage design, autoturn movements, graphical grades, typical sections and inroads modeling. Also responsible for preparation of utility conflict matrices and final right-of-way maps.				

03/14 – 01/23 <i>(previous employer)</i>	SP H.004113, I-12 to Bush: LA 3241 (LA 435 to LA 40/41), St. Tammany Parish, LA (LADOTD) – Project Engineer/EOR. Led roadway design including hydraulics, drainage, roadway H&V geometrics, superelevation, intersection design, R-CUT intersections, roundabout layouts, assisted with Level 3 Traffic Management Plans and led oversight of roadway plan production for 5.5-mile, four-lane rural roadway from LA 435 to Bush. Also provided Construction Support in the form of reviewing and responding to RFI's, contractor submittals and shop drawings.
06/16 – 08/16 <i>(previous employer)</i>	W. 15th St. Bridge/Mile Branch Creek, St. Tammany Parish, LA (City of Covington) – Engineer of Record. Responsible for all roadway and bridge design including drainage, H&V geometry, special bent/spans, design of integrated 8' wide shared use path on structure, oversight of plan production for 5-span bridge replacement over Mile Branch in Covington, LA.
02/23 - Ongoing	EN22-0181, Rousseau Rd. over Tchefuncte River, St. Tammany Parish, LA (St. Tammany Parish Government) – Lead Engineer. Lead engineer responsible for roadway design for offset alignment, H&V geometrics, hydraulics, QA for bridge design elements including special span/bents, bridge rehabilitation, environmental assistance, and subconsultant coordination for the replacement of the existing 4-span vehicular near Covington, LA.
03/23 - Ongoing	S.P. H.014993, Lemon Road over Drainage Bayou, East Baton Rouge Parish, LA (LADOTD) – Project Manager/Engineer of Record. Lead engineer for roadway design, H&V geometry, subsurface drainage design, bridge hydraulic design and scour analysis. Performed plan reviews of substructure and superstructure design elements and lead coordination efforts of Environmental deliverables such as SOV's and Categorical Exclusion document.
03/23 - Ongoing	S.P. H.014992, McHugh Road over Brushy Bayou, East Baton Rouge Parish, LA (LADOTD) – Project Manager/Supervising Engineer. Oversaw roadway design elements such as H&V geometry, subsurface urban drainage design, bike path and pedestrian accommodations. Performed quality control of bridge hydraulic design and scour analysis, and provided assistance with bridge design and environmental.
07/20 – 02/23 <i>(previous employer)</i>	Contract No. 4400017598, Rural Bridge Replacement Initiative (Phase 1), Districts 04, 05, 08 and 58 (LADOTD) – Project Manager/Engineer of Record. Performed QC review of topographic surveys, served as the EOR or Lead Engineer for roadway design, geometrics, and bridge design elements including hydraulics analysis, scour, horizontal/vertical alignments, Level 1&2 TMP, oversight of geotechnical services and environmental permitting, SOV's, CE document preparation and permitting the replacement of 47 bridge structures in northern and central Louisiana containing Fifteen (15) State Project Numbers. Responsible for providing construction support in the form of reviewing and responding to Contractor RFI's, submittals and shop drawings.
06/21 – 02/23 <i>(previous employer)</i>	Contract 44-19336 – Rural Bridge Replacement Initiative Phase II (40 bridge structures), Districts 04, 05 (LADOTD) – Project Manager. Responsible for overall project management and qc of roadway design, geometrics, and bridge design elements including hydraulics analysis, scour, horizontal/vertical alignments, Level 1&2 TMP, oversight of geotechnical services and environmental permitting, SOV's, CE document preparation and permitting the replacement of 40 bridge structures in northern Louisiana containing Twelve (12) State Project Numbers.



## 16. STAFF EXPERIENCE


Firm employed by Crescent Engineering & Mapping, LLC					
	Name	<b>Abbey F. Falcon, PE</b>		Years of relevant experience with this employer	1.5
	Title	Project Engineer		Years of relevant experience with other employer(s)	5
	Degree(s) / Years / Specialization		BS / 2017 / Civil Engineering		
	Active registration number / state / expiration date		PE No. 46035 / LA / 03-31-2024		
	Year registered	2021	Discipline	Civil Engineering	
	Contract role(s) / brief description of responsibilities		Roadway and Bridge Design		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
08/21 – 07/22 <i>(previous employer)</i>	S.P. H.014407, LA 621 at Roddy Rd. Roundabout, LADOTD, Ascension Parish, LA – Project Engineer. Lead design engineer for the design of a roundabout at the intersection of Roddy Road and LA 621 in Ascension Parish, LA. Assisted in the coordination with the traffic subconsultant and the client during the creation of the Roundabout Report for LADOTD. Prepared roundabout and intersection widening conceptual layouts for inclusion in the report. Also responsible for preliminary design and plans including elements such as H&V alignments, autoturning movements, roundabout geometrics, and drainage design.				
07/22 – Ongoing	LA 3127 Widening (LA 20 to LA 3213), St. James Parish, LA (St. James Parish) – Project Engineer. Assisted in several project design elements such as H&V alignments, drainage design, geometrics, and preliminary inroads modeling for over 4 miles of arterial widening. Project involves widening existing roadway to 4-lane divided and includes two multi-lane roundabouts, geotechnical, environmental for over 4 miles of arterial widening.				
09/18 – 01/20 <i>(previous employer)</i>	MA-18-07, Braud Rd. & Germany Rd. Roundabout, Ascension Parish Government, Ascension Parish, LA – Engineering Support. Performed hydraulic analysis and calculations of all side drain and cross drain pipes for the urban drainage design of the roundabout at Braud Rd. and Germany Rd. in Ascension Parish, LA. Perform inlet spacing and drainage network calculations utilizing LADOTD HYDRWIN programs HYDR6000 and HYDR6020.				
12/22 - Ongoing	S.P. H.014992, McHugh Road over Brushy Bayou, East Baton Rouge Parish, LA (LADOTD) – Project Engineer, Hydraulic EOR. Lead/EOR for hydraulics analysis, lead design of roadway, pedestrian and bicycle lane design, H&V geometrics, road and bridge plan production, performed Inroads modeling, assist with bridge design elements including special span/bents, cantilevered sidewalks on bridge with bike lanes, railing design for the replacement of the existing vehicular and pedestrian bridges near Baker, LA.				
05/17 – 08/21 <i>(previous employer)</i>	S.P. H.004113, I-12 to Bush: LA 3241 (LA 435 to LA 40/41), St. Tammany Parish, LA (LADOTD) – Project Engineer. Assisted with all roadway design elements on the 5.5 rural, 4-lane corridor project including geometrics and drainage design. Prepared quantities, performed Inroads roadway modeling, prepared summary sheets, typical sections, detailing, Sequence of Construction sheets, prepared preliminary and final roadway plans.				
05/17 – 08/21 <i>(previous employer)</i>	S.P. H.011152, I-12 Widening (US 190 to LA 59), St. Tammany Parish, LA (LADOTD) – Project Engineer. Assisted with all roadway design elements on the 4-mile Interstate widening project including geometrics, Level 4 TMP and drainage. Prepared quantities, Inroads roadway modeling, summary sheets, typical sections, detailing, Sequence of Construction sheets, prepared preliminary and final roadway plans. Accelerated project schedule.				
04/18 – 10/21 <i>(previous employer)</i>	S.P. H.001344, US 190: LA 437 to US 190 BUS (Ph. 1), St. Tammany Parish (LADOTD) – Project Engineer. Assisted with all roadway design elements on the 1-mile Urban, multi-lane roadway widening project including geometrics and drainage. Prepared quantities, performed Inroads roadway modeling, prepared summary sheets, typical sections, detailing, assisted with the preparation of preliminary and final roadway plans.				
04/20 – 04/22 <i>(previous employer)</i>	S.P. H.013987, LA 521: Bridges Near Dykesville, Claiborne Parish, LA (LADOTD) – Lead/Engineer of Record. Responsible for all roadway and bridge design, bridge hydraulics & scour analysis, developed roadway and bridge H&V alignments, superelevation, drainage, bridge TS&L, prepared roadway and bridge plans, design report & criteria forms for the replacement of three (3) LADOTD On-System bridges.				



04/20 – 05/22 <i>(previous employer)</i>	S.P. H.013955, LA 507, 514, Local: Bayou and Cr BRs, Red River Parish, LA (LADOTD) – Lead/Engineer of Record. Responsible for all roadway and bridge design, bridge hydraulics & scour analysis, developed roadway and bridge H&V alignments, drainage design, bridge TS&L, curved bridge sites, prepared roadway and bridge plans, design criteria for the replacement of five (5) LADOTD On-System bridges and one (1) Off-System Bridge.
07/17 – 06/21 <i>(previous employer)</i>	S.P. H.013116, LA 20 Widening (LA 307 to S. Vacherie), St. James & Lafourche Parishes (LADOTD) – Project Engineer. Assisted with H&V geometrics, roadway drainage design, roadway and bridge plan production, Inroads modeling, quantity calculations for the 2.7 mile rural safety widening project including split phased bridge construction of the RC slab span bridge over unnamed Bayou.
09/18 – 08/20 <i>(previous employer)</i>	MA-17-01, Roddy Road Widening (LA 935 to LA 621), Ascension Parish Government, Ascension Parish, LA – Engineering Support. Performed hydraulic analysis and calculations of all roadside ditches, side drain pipes and cross drain pipes for the design of the reconstruction of Roddy Rd. in Gonzales, LA. Performed all calculations in LADOTD HYDRWIN Programs including HYDR1120, HYDR1130 and HYDR1140 in order to determine ditch depths, pipe sizes and headwater/tailwater elevations. Assisted in the plan production of the bridge along Roddy Road crossing Black Bayou.
06/22 - Ongoing	EN22-0181, Rousseau Rd. over Tchefuncte River, St. Tammany Parish, LA (St. Tammany Parish Government) – Project Engineer. Developed roadway design for offset alignment, H&V geometrics, hydraulics, assisted with bridge design elements including special span/bents, bridge TS&L development, environmental assistance, and subconsultant coordination for the replacement of the existing 4-span bridge near Covington, LA.
12/22 – Ongoing	S.P. H.015025, Mclin Road over Darling Creek, St. Helena Parish, LA (LADOTD) – Lead Project Engineer/EOR. Responsible for all roadway and bridge design including H&V geometrics, drainage design, hydraulics and scour analysis, foundation layout, curved RC slab spans and approach slabs, guardrail design, GPE, on-site detour design, Inroads modeling, developed bridge TS&L, oversight of road and bridge plan production. Accelerated design schedule.
07/17 – 09/18 <i>(previous employer)</i>	S.P. H.011540, Babin Road Bridge/Bayou Narcisse, Ascension Parish, LA (LADOTD) – Engineering Support. Assisted with H&V geometrics, roadway drainage design, roadway and bridge plan production, Inroads modeling, quantity calculations for the 3-span Off-System bridge near Gonzales, LA.
04/20 – 04/22 <i>(previous employer)</i>	S.P. H.013953, McManus Road Bridge/Cypress Creek, Richland Parish, LA (LADOTD) – Lead/Engineer of Record. Responsible for all roadway and bridge design, bridge hydraulics & scour analysis, developed roadway and bridge H&V alignments, drainage design, prepared bridge TS&L, prepared roadway and bridge plans, design report forms, design criteria for the eight (8) span Off-System bridge replacement.



## 16. STAFF EXPERIENCE


Firm employed by Crescent Engineering & Mapping, LLC					
	Name	Megan M. Miller, PE		Years of relevant experience with this employer	<1
	Title	Bridge Design Project Engineer		Years of relevant experience with other employer(s)	13
	Degree(s) / Years / Specialization		BS / 2010 / Civil Engineering		
	Active registration number / state / expiration date		PE No. 39897 / LA / 09-30-2025		
	Year registered	2015	Discipline	Civil Engineering	
	Contract role(s) / brief description of responsibilities		Bridge Design. Megan's experience fulfills <b>MPR 5</b>		
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
02/17 – 08/19 <i>(previous employer)</i>	S.P. H.011152, I-12 Widening (US 190 to LA 59), St. Tammany Parish, LA (LADOTD) – Lead Bridge Design Engineer/Engineer of Record. Performed all bridge design tasks associated with the widening of the I-12 bridges over the Tammany Trace Bike Path utilizing AASHTO Type III Precast, Pre-stressed concrete girders with multiple, varying skewed spans in a vertical curve. Designed girders and deck using various programs including LEAP CONSPAN, STAAD, and BrR (Virtis). Performed substructure design using STAAD ProV8i and LEAP CONSPAN, designed bearing pads, framing and foundation plans. Assisted with bridge plan production including partial demolition and construction phasing plans for the interstate widening project. Also provided construction support in the form of contractor shop drawing reviews.				
09/18 – 12/23 <i>(previous employer)</i>	S.P. H.001344, US 190: LA 437 to US 190 (BUS) (Ph. 1), St. Tammany Parish, LA (LADOTD) – Bridge Project Engineer. Responsible for bridge design tasks including development of TS&L, typical sections, foundation plan, General Plan/Elevation, superstructure modeling using LEAP CONSPAN, and development of bridge plans for a 1400-foot-long bridge over the Bouge Falaya River in Covington, LA using LG 36 and LG 54 prestressed concrete girders. Performed reviews of contractor bridge submittals and shop drawings.				
03/17 – 06/22 <i>(previous employer)</i>	S.P. H.013116, LA 20 Widening (LA 307 to S. Vacherie), St. James and Lafourche Parishes, LA (LADOTD) – Lead Bridge Design Engineer. Performed all bridge design tasks for the widening of LA 20 including bridge replacement using split-phase construction methods. Performed superstructure and substructure design using various programs including LEAP CONSPAN, STADD ProV8i, prepared construction phasing details, foundation plans and assisted with bridge plan production.				
06/17 – 07/19 <i>(previous employer)</i>	MA-17-01, Roddy Road Widening (LA 935 to LA 621), Ascension Parish (Ascension Parish Government) – Bridge Project Engineer. Responsible for bridge design including development of TS&L, superstructure and substructure design, LRFR, bridge plan production of a 120' long, 34' clear, RC slab span bridge in Gonzales, LA.				
02/18 – 10/19 <i>(previous employer)</i>	West 11th Ave. Bridge/Mile Branch Creek, St. Tammany Parish, LA (City of Covington) – Bridge Project Engineer. Performed LRFR, bridge inspection and Quality Control reviews on bridge plans for the replacement of a 5-span, 100' long, 24' clear width reinforced concrete slab bridge and roadway approach reconstruction on W. 11th Avenue in Covington, LA. Bridge included special bents for precast and CIP deck options to accommodate utilities, tapered rails and subsurface drainage.				
02/17 – 04/18 <i>(previous employer)</i>	S.P. H.010557, Lajaunie Road/Lateral 1 Bayou St. Clair, Lafayette Parish, LA (LADOTD) – Lead Bridge Design Engineer. Performed all bridge design tasks for the replacement of the existing bridge with a 3-span, curved, superelevated Quad Beam structure using various programs for superstructure and substructure including LEAP CONSPAN and STAAD ProV8i, prepared foundation details, miscellaneous bridge details, designed bearings, prepared bridge plans and special provisions.				



02/17 – 04/18 <i>(previous employer)</i>	S.P. H.010724, Pecan Island Road Bridge over The Chenal, Pointe Coupee Parish, LA (LADOTD) – Bridge Design Project Engineer. Responsible for bridge design of entire structure including CIP or Precast special 25' slab spans and bents founded on Steel Pipe Piles utilizing Bentley STAAD and LEAP CONSPAN, prepared bridge details and oversaw bridge plan production for Final Plans, performed As-Designed LRFR utilizing AASHTOWare BrR 6.8 (Virtis) for the 150' long bridge replacement project in Pointe Coupee parish for the off-system bridge replacement program.
01/24 - Ongoing	S.P. H.015025, Mclin Road over Darling Creek, St. Helena Parish, LA (LADOTD) – Bridge Design Project Engineer. Responsible for the bridge design elements of a 4-span, 24' clear width, curved, concrete slab span bridge utilizing STAAD and OpenBridge bridge design software programs. Reviewed bridge superstructure and substructure details and performed As-Designed LRFR utilizing AASHTOWare BrR 7.4 of the bridge replacement in St. Helena Parish as a part of the Off-System Bridge Replacement Program.
01/24 - Ongoing	S.P. H.014993, Lemon Road over Drainage Bayou, East Baton Rouge Parish, LA (LADOTD) – Bridge Design Project Engineer. Responsible for the bridge design elements of a 4-span, 28' clear width, concrete slab span bridge with a concrete tapered barrier railing on one corner utilizing STAAD and LEAP CONSPAN bridge design software programs. Reviewed bridge substructure details and performed As-Designed LRFR utilizing AASHTOWare BrR 7.4 of the bridge replacement in East Baton Rouge Parish as a part of the Off-System Bridge Replacement Program.
2010 – 2014 <i>(previous employer)</i>	Bridge Inspection & Rating IDIQ, Statewide (INDOT) – Project Engineer. Performed all phases of multiple county bridge inspection contracts ranging from \$100k to \$1MM, including assisting in routine and special feature bridge inspection (including fracture critical), performed modeling and analysis of bridge structures for LRFR using BrR and SACS, prepared field documentation and sketches, inputting field data into INDOT's Bridge Inspection Application System (BIAS). Structure types included timber, reinforced concrete, pre-stressed concrete girders and steel plate girders.
2010 – 2014 <i>(previous employer)</i>	US 31 Bridges, South Bend IN (INDOT) – Project Engineer. Performed bridge design including modeling and analysis, design computations, quantity calculations, cost estimates and developed final plans for the design of the US 31 bridges including AASHTO Precast, Pre-stressed concrete girders, reinforced concrete slab spans, post-tensioned segmental concrete girders and steel plate girders.
2009 – 2010 <i>(previous employer)</i>	Marchand Bridge Rehabilitation & Restoration (Historical), Evansville, IN (INDOT) – Bridge & Construction Inspector, Design. Performed bridge inspection, design and construction inspection of the restoration of the historic steel truss bridge built in 1891 for use as part of the Greenway Trails project. Restoration included painting and replacement of steel beams. Bridge has been converted to an overlook on the Ohio River.



## 16. STAFF EXPERIENCE

	<b>Firm employed by Crescent Engineering &amp; Mapping, LLC</b>				
	Name	<b>James P. Ledet, PE, F. ACEC</b>		Years of relevant experience with this employer	1.5
	Title	Quality Control Engineer		Years of relevant experience with other employer(s)	44
	Degree(s) / Years / Specialization		BS / 1982 / Civil Engineering		
	Active registration number / state / expiration date		PE No. 22428 / LA / 03-31-2024		
	Year registered	1986	Discipline	Civil Engineering	
	Contract role(s) / brief description of responsibilities		Roadway and Bridge Design Quality Control Manager <b>MPR 4</b>		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
07/22 – Ongoing	S.P. H.015333, H.015404, H.015407 – Tangipahoa IIJA Bridge Replacements, Tangipahoa Parish, LA (LADOTD) – Quality Control Engineer. Responsible for QC reviews of roadway and bridge design including bridge TS&L, bridge hydraulics and scour analysis, roadway and bridge H&V geometry, reviewed roadway and bridge plans and bridge details, review calculations for the replacement of 5 bridge sites Parish-wide in Tangipahoa with RC Slabs and RCB’s.				
12/22 - Ongoing	S.P. H.014992, McHugh Road over Brushy Bayou, East Baton Rouge Parish, LA (LADOTD) – Quality Control Engineer. Responsible for QC reviews of roadway and bridge design including bridge TS&L, bridge hydraulics and scour analysis, roadway and bridge H&V geometry, reviewed roadway and bridge plans and bridge details, review calculations for the replacement structure using special 25’ spans, special bents and cantilevered sidewalks for the replacement of the existing vehicular and pedestrian bridges near Baker, LA.				
12/22 - Ongoing	S.P. H.015025, Mclin Road over Darling Creek, St. Helena Parish, LA (LADOTD) – Quality Control Engineer. Responsible for QC reviews of roadway and bridge design including bridge TS&L, bridge hydraulics and scour analysis, roadway and bridge H&V geometry, reviewed roadway and bridge plans and bridge details, review calculations for the 3-span curved replacement structure. Accelerated design schedule.				
05/15 – 08/17 (previous employer)	S.P. H.004113, I-12 to Bush: LA 3241 (LA 435 to LA 40/41), St. Tammany Parish, LA (LADOTD) – Senior Supervising Engineer. Supervision and oversight of roadway design including QC of hydraulic analysis, geometrics and supervision of plan production for the new 5.5-mile, four-lane RA-3 roadway from LA 435 to Bush, LA.				
11/13 – 11/18 (previous employer)	S.P. H.010557, Lajaunie Road/Lateral 1 Bridge over Bayou St. Clair, Lafayette Parish, LA (LADOTD) – Senior Professional/QA/QC. Supervision of topographic surveying and engineering design including roadway and bridge design for preliminary plans of the 80’ RC Slab and quad-beam, superelevated, curved Off-System bridge structure including roadway upgrades to RL-3 criteria.				
04/23 - Ongoing	Bridges Near Amite, Tangipahoa Parish, LA (Tangipahoa Parish) – Quality Control Engineer. Responsible for QC reviews of hydraulics and bridge design including bridge TS&L of alternatives including RC slabs and RCB’s, bridge hydraulics and scour analysis, bridge H&V geometry, review calculations and plan production/details, urban drainage design, for the replacement of three (3) bridge structures within Amite City, LA.				
11/10 – 06/14 (previous employer)	S.P. 713-29-0103, Tiger Drive Bridge over Bayou Lafourche, Lafourche Parish, LA (LADOTD) – Engineer of Record. Responsible for topographic surveying, roadway design including approaches, utility relocations, bulkheads and drainage, and bridge design including special RC slabs, curved spans, special bents and rail elements, oversight of construction support and shop drawing review for the 183’ long Urban bridge replacement.				
03/10 – 05/14 (previous employer)	S.P. 713-04-0002, LA 400 Bridge over Cancienne Canal, Assumption Parish, LA (LADOTD) – Engineer of Record. Responsible for topographic surveying, roadway design including approaches, and bridge design, supervised roadway and bridge plan production including bridge details, roadway details for the 7-span off-system bridge replacement.				



10/09 – 11/17 <i>(previous employer)</i>	07-EXT-22, Bayou Gardens Blvd. Extension: LA 660 to LA 316, Terrebonne Parish, LA (Terrebonne Parish Consolidated Government) – Engineer of Record (Ph. I)/Supervising Engineer (Ph. II). Responsible for topographic surveying, oversight of roadway design including drainage and geometrics, and oversight of 160' RC Slab Span bridge design including special/curved spans for 1.6-mile, four-lane roadway extension (UA-2) including signal upgrades and turn lanes on state routes.
1997-2011	S.P. 713-55-0100, St. Ann Bridge Replacement, Terrebonne Parish, LA (LADOTD) – Engineer of Record. Responsible for topographic surveying and all roadway design aspects, bridge design and approaches for the Off-System moveable bridge replacement with a single-leaf, bascule span bridge.
02/05 – 05/08 <i>(previous employer)</i>	S.P. 246-01-0054, Route LA 57: Grand Caillou Road, Terrebonne Parish, LA (LADOTD) – Engineer of Record. Responsible for all roadway design aspects including and subsurface drainage design; construction support and topographic survey for two-mile long UA-2, five-lane widening project.
11/99 – 01/01 <i>(previous employer)</i>	S.P. 742-07-0019, Bayou Gardens Blvd. Widening: LA 659 to Alma St., Terrebonne Parish, LA (LADOTD) – Engineer of Record/Project Manager. Responsible for topographic surveying, roadway design including geometrics and intersection improvements and subsurface drainage design for the one-mile UA-2 widening project.
1994 – 1997 <i>(previous employer)</i>	S.P. 413-01-0011, Hollywood Rd./LA 311 Intersection Improvements/Bridge Replacement, Terrebonne Parish, LA (LADOTD) – Engineer of Record/Project Manager. Responsible for design of roadway, hydraulics, utility relocations, drainage improvements, bulkheads and bridge design services for intersection improvement and Off-System bridge replacement project.
1994 - 1995 <i>(previous employer)</i>	S.P. 742-05-0042, Combon Bridge and Approaches, Terrebonne Parish, LA (LADOTD) – Project Manager. Responsible for EIS document and design supervision of the Off-System 100 Ft. vertical lift span across Grand Caillou including roadway approaches and shop drawing reviews during construction.
1985 - 1991 <i>(previous employer)</i>	S.P. 700-26-100, Off-System Bridge Replacement Program, Lafourche Parish, LA (LADOTD) – Engineer of Record/ Project Manager. Responsible for engineering design services for the replacement of four (4) Off-System bridges and associated roadway approaches: S.P. 713-46-98, Parish Road 16 (Choctaw Road) over St. James Canal; S.P. 713-53-93, Parish Road 18 (60 Arpent Road) over Bayou Boudreaux; S.P. 713-53-94, Parish Road 11 (Lepine Rd. #1) over unnamed canal; and S.P. 713-53-92 Parish Road 579 (Hamilton Road) over 40 Arpent Canal.
1984 - 1986 <i>(previous employer)</i>	S.P. 855-14-08 & 65-90-23, LA 3087: Bridge over Bayou Terrebonne at East Street, Terrebonne Parish, LA (LADOTD) – Project Manager. Responsible for the roadway and bridge design services to retrofit the existing Prospect Street bridge to be relocated to construct a vertical lift bridge at East Street, and associated intersection improvements at LA 24 and LA 659.





## 16. STAFF EXPERIENCE



Firm employed by VECTURA Consulting Services, LLC					
Name	Sheelagh Brin Ferlito, PE, PTOE			Years of relevant experience with this employer	8
Title	Principal			Years of relevant experience with other employer(s)	27
Degree(s) / Years / Specialization		BS / 1988 / Civil Engineering			
Active registration number / state / expiration date		PE No. 25383 / LA / 9-30-2025			
Year registered	1993	Discipline	Civil		
Contract role(s) / brief description of responsibilities		Traffic Control Design / Temporary Traffic Signal Analysis and Design QC; <b>MPR 6</b>			
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
07/21 – Present	H.007160 - EBR Computerized Traffic Signal, Phase VB (Baton Rouge, LA) Brin is the task leader for Vectura for the Construction Engineering and Inspection of 24 traffic signals. Brin oversaw the review of signal mast arm shop drawings to assist the City-Parish of Baton Rouge in accepting the manufactured poles. Brin and Reece, with the DOTD, City-Parish and the Contractor conducted field visits to confirm pole foundation locations.				
07/19 – Present	MOVEBR New Capacity Projects Program Management (Baton Rouge, LA) Brin is the lead traffic engineer for entire the New Capacity Projects program management team. All traffic engineering scope of services, traffic / speed data collection, traffic design studies, safety studies, and traffic signal design plans are reviewed by Brin. She is in constant communication with the Traffic Engineering staff of DOTD and EBR Traffic Engineering Department. She understands the current requirements for all aspects of traffic engineering projects.				
07/19 – Present	H.004791 DOTD Belle Chasse Bridge & Tunnel Replacement PPP (Belle Chasse, LA) Brin is the project manager for the temporary and permanent traffic signal plans for the intersections of LA 23 at Burmaster St and at Engineers Rd. She based her traffic signal plans on design year volumes that were developed using growth rates from the New Orleans Regional Planning Commission Travel Demand Model. This project is the first ever Public-Private-Partnership performed by Louisiana DOTD.				
04/18 – 06/21	H.011909.5-4 Roundabout: US 171 at Boone St. (Vernon Parish) Brin reviewed 60 Percent Preliminary Signing and Striping Plans and developed documented comments based on LADOTD Road Design Manual, LADOTD Standard Details and MUTCD. She is also the project manager for the design of temporary traffic signal plans that will be implemented during the roundabout construction at the intersection of US 171 at Boone Street in Leesville, LA. She coordinated access management issues using aerials, aged traffic volumes and Synchro Software.				
09/20 – 12/21	H.010960.5 LA 30 Roundabouts at Tanger I-10 (Ascension Parish, LA) Brin is the project manager for the design of temporary traffic signal plans that will be implemented during the roundabout construction along LA 30 in Gonzales, LA. The project involves replacing three existing signalized intersections with multilane roundabouts along LA 30 at I-10 Interchange ramps and at the Tanger Boulevard. Vectura also developed signal timing plans for each phase of the construction to maintain progression along LA 30.				
07/18 – 04/19	LA 1 Pedestrian Crosswalk Study and Traffic / Pedestrian Signal Design West Baton Rouge Parish, Addis, LA Brin developed a Pedestrian Crosswalk Study and Traffic Signal Construction Plans for the intersection of LA 1 at LA 990 in Addis, LA. The study was based on DOTD Traffic Engineering Manual Crosswalk Guidelines followed by traffic signal design plans based on DOTD requirements. The study included traffic and pedestrian traffic data collection, a speed study, crash analyses, intersection analyses and progression analyses. The signal plans included pedestrian signal equipment, signal timing parameter calculations, crosswalk striping, signs, DOTD pay items, estimated quantities, and construction cost. Brin also assisted with the Parish with the DOTD Permit Request for Intersection Control Devices on a State Right of Way.				



09/17 – 04/18	US 11 at US 190 Bus. (Fremaux Ave.) Pedestrian Crosswalk Study and Traffic / Pedestrian Signal Equipment Design Slidell, LA Brin developed a formal traffic study for a proposed crosswalk with pedestrian traffic signal equipment and pedestrian clearance timings based on DOTD requirements. Brin assisted with vehicle and pedestrian data collection, spot speed study, analyzed 3-year intersection crash data and developed signal timing for pedestrians to cross the street. From the design study, a set of Traffic Signal Modification Plans were developed to implement the recommended alternative.
02/17 – 10/17	Stage 0 Judge Tanner Boulevard at N. Causeway Roundabout Study (St. Tammany Parish, LA) Brin developed the safety analyses for a Stage 0 Study for 4 intersections in the Mandeville area. The study was based on EDSMs VI.1.1.1 / VI.1.1.5 and DOTD Traffic Engineering Manual Section 20.2. Brin assisted collecting 7-day, 24-hour counts w/ Classification, turning movement counts for peak periods and speed data for mainlines. She developed signal timing in the PTV Vistro software. The signal timings were then used in Sidra to complete the HCM analyses. Brin provided a quality control review of the traffic report.
06/16 – 09/17	H.004490 Stage 0 Roundabout Studies (Lafayette Parish, LA) Brin developed sections of a Stage 0 Feasibility Study for roundabouts the conformed to DOTD EDSMs and Traffic Engineering Manual Section 20.2 at ten intersections in the Lafayette area. Brin, along with Laurence, collected 7-day, 24-hour counts w/ classification, turning movement counts for AM and PM peak periods and speed data for mainlines. Brin provide a QC review of the Sidra analyses and developed traffic signal timing for 3 intersections for Years 2019 and 2039, AM & PM peak hours and developed a crash analyses as defined in Section 20.2 of TEM. CMF factors were identified for the preferred alternative to predict the number of crashes that could be eliminated. Brin provided a QC review of the final draft.
04/14 – 12/14	H.002301 Signal Design for N. Sherwood Forest Dr. Widening Project (Baton Rouge, LA) As the project engineer, Brin was in responsible charge for data collection and design for three signalized intersections as part of a road widening project as per EBR DPW and DOTD requirements. Ms. Ferlito developed the traffic signal equipment, signal timing and communication construction plans, special provision specifications, quantities, and cost estimate. She also performed tasks to develop the striping plans and sequence of construction plans which included temporary signal equipment placement due to lane shifts during construction.
07/12 – 03/14	EBR 03-TS-CI-0026 CE&I for EBR Traffic Signal Systems Jefferson Highway Construction (Baton Rouge, LA) Brin was the Project Resident Engineer on behalf of EBR for performing CE&I services for the construction of 11 traffic signals. She maintained records of the contractor's daily operations, coordinated significant events that affected construction progress including utility issues, reviewed shop drawings, conducted monthly progress meetings, recorded daily installed quantities, developed change orders and monthly contractor pay estimates. She also coordinated with DOTD ITS division for fiber splicing into interstate I-12 fiber backbone and ATM / EOC building. She processed all monthly tasks in EBR formats as well as well as all items on the EBR project closeout checklist.
07/08 – 09/09	SPN 013-05-0043 CE&I for EBR Traffic Signal Systems Phase IV Construction (Baton Rouge, LA) Brin was the Project Resident Engineer for DOTD and EBR to perform CE&I services for the construction of 21 traffic signals. She developed the project Sample Plan, maintained records of the contractor's daily operations, coordinated significant events that affected construction progress including utility issues, reviewed shop drawings, conducted monthly progress meetings, recorded daily installed quantities, coordinated concrete sampling for DOTD Materials Lab, developed change orders and monthly contractor pay estimates. She also coordinated with DOTD ITS division for fiber splicing into Airline Highway fiber backbone and ATM / EOC building. She processed all monthly tasks electronically in DOTD Site Manager and in EBR required formats as well as all items on the DOTD Project Closeout Checklist including the 2059 Report.
09/13 – 04/14	S.P. 700-99-0477 Jefferson Hwy. Signal Design (Baton Rouge, LA) Ms. Ferlito designed traffic signal plans for 11 intersections along Jefferson Highway between College Drive and the I-12 On Ramp in Baton Rouge. Design included traffic data collection, traffic signal layout, fiber interconnect layout, fiber splicing diagrams, pedestrian crosswalk layout, and sign layout. Design also included traffic signal synchronization signal timing and pedestrian signal timing. She prepared estimated quantities, preliminary and final signal construction plans, and specifications.
03/05 – 11/05	Airline Hwy Widening SPN 700-99-0332 (Baton Rouge, LA) Brin designed 8 traffic signals as part of the Airline Hwy. widening project in Baton Rouge. Her design included traffic data collection, traffic signal equipment, signal synchronization timing, fiber communication, storage length calculations based on queues analyses, special provision specifications, quantities, and cost estimate. This project included fiber design to be the first Baton Rouge project to connect video surveillance images and traffic controller information to the ATM / EOC.



## 16. STAFF EXPERIENCE



### Firm employed by VECTURA Consulting Services, LLC

Name	<b>Laurence Lucius Lambert, II, PE, PTOE, PTP</b>		Years of relevant experience with this employer	8
Title	Principal		Years of relevant experience with other employer(s)	18
Degree(s) / Years / Specialization		BS / 1997 / Civil Engineering; MS / 2006 / Civil Engineering (Transportation focus); MBA / 2010		
Active registration number / state / expiration date		PE No. 29901 / LA / 3-31-2024		
Year registered	2001	Discipline	Civil	
Contract role(s) / brief description of responsibilities		TMP QC; <b>MPR 6</b>		

Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
02/21 – 03/21	H.013256.5 I-10 ITS Scott to Lake Charles (Southwest Louisiana) Laurence was the lead traffic engineer for a Level 2 Traffic Management Plan (TMP) for the construction of ITS equipment along I-10. The plan included a safety strategy that included a CAT Scan, LOS determination utilizing Citrix data, lane closure recommendations based on a queue analysis and public information strategies.
07/22 – 09/22	H.013716.5 – US 167: Camellia Blvd – Churchill Dr (Lafayette, LA) Pedestrian Count Study Laurence developed a technical memorandum as part of a DOTD Safety IDIQ contract to document if an approach at a signalized intersection met the warrants listed in the Traffic Engineering Manual Sections 3B.2.4 and 3B.2.8 for a pedestrian marked crosswalk.
07/19 – Present	MOVEBR New Capacity Projects Program Management (Baton Rouge, LA) At the beginning of the program, Laurence worked with the Capital Region Planning Commission to produce measures of effectiveness from the travel demand model to prioritize the MOVEBR project list. Laurence and Pong Wu developed a list of vehicle miles traveled, V/C ratios and vehicles hours of delay. Laurence also developed specifications of Rectangular Rapid Flashing Beacons (RRFB) for the City of Baton Rouge.
04/18 – 12/21	H.010960.5 LA 30 Roundabouts at Tanger & I-10 Gonzales (Ascension, LA) Laurence provided a Quality Control review of the temporary construction and sequence of construction plans. Vectura also provided Quality Control review of signing and striping plans at 30% and 60% plan sets to ensure the roundabouts conformed to the Pavement Markings Details Sheet PM-09 and the MUTCD details on roundabouts.
04/18 – 12/21	H.011909.5-4 Roundabout: US 171 at Boone St. (Vernon Parish, LA) Laurence provided a Quality Control review of the temporary construction and sequence of construction plans. Vectura also provided Quality Control review of signing and striping plans at 30% and 60% plan sets to ensure the roundabouts conformed to the Pavement Markings Details Sheet PM-09 and the Manual on Uniform Traffic Control Devices (MUTCD) details on roundabouts.
02/20 – 09/21	College Drive Corridor Enhancement from Perkins Road to I-10 (Baton Rouge, LA) Laurence was the project manager to develop Chapter 1 (Data Collection), Appendix A (Initial Data Collection), and Appendix B (Final Data Collection) for proposed improvements College Drive. Since the I-10 interchange was included in the study, approval from DOTD was required. Vectura collected, turning movement counts, 85% speed data, travel time runs, queue measurements, field observations, verification of Traffic Signal Inventories, and bicycle / pedestrian / transit observations.
09/17 – 04/18	US 11 at US 190 Bus. (Fremaux Ave.) Pedestrian Crosswalk Study and Traffic / Pedestrian Signal Equipment Design Slidell, LA Laurence assisted Brin in the development of a formal traffic study for a proposed crosswalk with pedestrian traffic signal equipment and pedestrian clearance timings based on DOTD requirements. Brin assisted with vehicle and pedestrian data collection, spot speed study, analyzed 3-year intersection crash data and developed signal timing for pedestrians to cross the street. From the design study, a set of Traffic Signal Modification Plans were developed to implement the recommended alternative.
01/17 – 07/17	RPC Task ST-1.17 Minnesota Park Road Improvements (Tangipahoa Parish) Laurence was the task leader for a traffic data collection and intersection analyses of a Stage 0 feasibility study. Laurence utilized Sidra software to perform an alternative analyses Highway Capacity Manual Analyses that included STOP, signal, and a roundabout. The DOTD procedures for utilizing Sidra were followed for this project. Laurence stamped the final version of the traffic study for the Stage 0.



10/17 – 10/18	H.013025 LA 182 (University Avenue) Corridor Planning Study (Lafayette, LA) Laurence was the lead transportation engineer for a Corridor Planning Study for LA 182. The scope focused on improving safety and mobility for pedestrian, bicycle, and transit users. Laurence collected AM & PM peak vehicle turning movement counts as well as pedestrian and bicycle counts. Laurence coordinated with the Acadiana Planning Commission to develop growth rates and design year volumes. Laurence then performed Highway Capacity Manual analysis for 5 intersections along the intersection analyses for the signalized and roundabout controlled alternatives. Included in the study was a safety analyses of five intersections and the intermediate segments. Based on the results of the safety analysis, Laurence provided design criteria to the design team for improving safety of pedestrians, bicycles, and vehicles.
09/16 – 04/17	H.004957.5 I-12 To Bush - LA 3241 (I-12 – LA 36) Corridor Study (St. Tammany Parish, LA) Laurence was the lead traffic engineer for a DOTD traffic study for the new LA 3241 alignment with the purpose of obtaining both existing and projected future traffic variables in accordance with standard operating procedures typically performed in these types of analyses. Laurence worked closely with the NORPC and District 62 to develop design year volumes using data the TransCAD model. The traffic study examined concepts that improved the safety and efficiency of the roadway consistent with the latest DOTD policies related to access management. Laurence, along with Brin, collected 7-day, 24-hour counts w/ classification on mainlines, turning movement counts for morning and evening peak periods and speed data for mainlines. Laurence also developed a VISSIM traffic simulation model of the preferred alternative.
07/14 – 01/17	FHWA Intersection & Interchange Geometrics: Innovative Design Considerations for All Users (Multiple States) FHWA funded workshops for state Departments of Transportation that were interested in learning more about innovative intersection & interchange design. Laurence presented either part or all the one-day or two-day workshops that included modules on the overall policy and goals of FHWA for these types of innovations, roundabouts, roundabout interchanges, DLTs, DDIs, J-turns / Superstreets, MUT, Thru-turns, quadrant, and the assessment tools (CAP-X) available to compare the measures of effectiveness of each innovation. Each module includes sections on design, traffic operations, safety and multi-modal accommodation Laurence has presented for the Alabama, Kentucky, Ohio, Oklahoma, Massachusetts, Tennessee, and Texas Departments of Transportation under this contract.
06/16 – 09/17	H.004490 Stage 0 Roundabout Studies, (Lafayette Parish, LA) Laurence performed a Stage 0 Feasibility Study for roundabouts at ten intersections in the Lafayette area. The scope was developed based on EDSMs VI.1.1.1 / VI.1.1.5 and DOTD Traffic Engineering Manual Section 20.2. Laurence, along with Brin, collected 7-day, 24-hour counts w/ classification, turning movement counts for peak periods and speed data for mainlines. Once the traffic data was collected, Laurence performed traffic signal warrants analyses, performed a Sidra unsignalized, signalized and roundabout analyses. After the analyses were completed, Laurence developed a report that captured the results.
03/10 – 11/11	S.P. No. 700-09-0171 Stage 0 and 1 Study I-49 Inner City Connector (Shreveport, LA) This 3.5-mile route will connect existing I-49 / I-20 interchange to the proposed I-49 / I-220 interchange. After completing the Stage 0, Laurence was the project manager for the traffic analyses for the EA phase. The total traffic analyses effort included over 30 TransCAD Models, 20 interchanges and 70 intersections. Analyses included signalized and unsignalized intersections, basic freeway segments, freeway merge / diverge segments and freeway weaving segments at the studied intersections and interchanges. This project included performing both Interchange Modifications Reports (IMRs) and Interchange Justification Reports (IJRs).
04/04 – 12/04	I-10 Frontage Roads, Picardy Interchange, Bluebonnet Siegen (Baton Rouge, LA) Laurence provided the traffic analysis for a highly unique reconfiguration of interstate ramps that included frontage roads and an overpass of I-10 for new an interchange at Picardy. HCS and VISSIM were the primary analysis tools for the analysis. As part of the design team that developed the concept for this project, Laurence performed feasibility studies, developed design criteria, and coordinated with city, state and federal agencies for approvals as well as gathered public input. Laurence prepared traffic signal timings and designs that included cost estimates for the project.
04/04 – 09/06	Stage 0 I-10 at Pecue Lane Interchange Justification Study (Baton Rouge, LA) Laurence was the lead traffic engineer for a Stage 0 traffic study analyzing the proposed interchange at I-10 and Pecue Lane. Laurence developed current and future traffic volumes based on the CRPC TransCAD model growth rates. Using HCS, Laurence analyzed signalized and unsignalized intersections, basic freeway segments, freeway merge / diverge segments and freeway weaving segments. Laurence also developed a micro-simulation model in both VISSIM and TSIS.



## 16. STAFF EXPERIENCE



Firm employed by VECTURA Consulting Services, LLC				
Name	Reece Rodrigue, PE, PTOE, RSP <sub>1</sub>		Years of relevant experience with this employer	4
Title	Project Traffic Engineer		Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization		BS / 2013 / Civil Engineering		
Active registration number / state / expiration date		PE No. 42074 / LA / 3/31/2024		
Year registered	2017	Discipline	Civil	
Contract role(s) / brief description of responsibilities		Project Engineer for Traffic Control Design / Temporary Traffic Signal Analysis and Design		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
04/21 – Present	MOVEBR Direct Select for Traffic Signal Design, Baton Rouge, LA Reece is a project engineer for the design of traffic signal upgrades at 10 intersections. This project included a traffic design report, preliminary and final plans for traffic signals that included traffic signal layout, fiber interconnect layout, fiber splicing diagrams, pedestrian crosswalk layout, and sign layout. The design also included traffic signal synchronization signal timing and pedestrian signal timing.			
07/21 – Present	H.007160 - EBR Computerized Traffic Signal, Phase VB (Baton Rouge) Reece is part of the team responsible for Construction Engineering and Inspection. Reece has reviewed the signal mast arm shop drawings to assist the City-Parish of Baton Rouge in accepting the manufactured poles. Reece, with the DOTD, City-Parish and the Contractor conducted field visits to confirm pole foundation locations.			
01/21 – 05/21	H.013256 - I-10 ITS Scott to Lake Charles (Lafayette, Acadia, and Jefferson Davis Parishes) Reece was a member of the subconsultant team who was tasked with reviewing the ITS plans for 15 sites along I-10 where CCTV cameras were being installed. Reece was responsible for measuring anticipated construction quantities and producing a cost estimate for said quantities by using DOTD’s Bid Tabulation and Cost Estimating Tool.			
09/20 – 12/21	H.011909.5-4 Roundabout: US 171 at Boone St. (Vernon Parish) Reece was a project engineer, who participated in the production of the temporary signal design associated with the sequence of construction for the roundabout at US 171 at Boone St. He conducted a thorough analysis of the US 171 corridor’s existing allowable movements and identified the movements that would be restricted during the proposed construction process and how it would impact the typical traffic patterns.			
09/20 – 12/21	H.010960.5 LA 30 Roundabouts at Tanger I-10 (Ascension Parish) Reece was a project engineer, who assisted in the production of the temporary signal design associated with the sequence of construction for the roundabouts on LA 30 in Gonzales, LA. This project consists of eight proposed construction phases. He assisted in calculating the temporary pole heights, determining the placement location for the temporary poles for each phase, measuring and calculating clearance intervals. Reece conducted a thorough analysis of the LA 30 corridor’s existing allowable movements and identified the movements that would be restricted during the proposed construction process and how it would impact the typical traffic patterns.			
04/20 – Present	H.004791 DOTD Belle Chasse Bridge & Tunnel Replacement Public-Private Partnership Project (Belle Chasse) Reece is the project engineer who designed the temporary traffic signal for the intersection of LA 23 at Engineers Rd. The design of the temporary signals is set for eight phases of construction per the anticipated sequence of construction. Temporary pole location and heights were recommended for placement for use for all construction phases. Vehicle clearance interval calculations were conducted for each phase in accordance with DOTD and ITE guidance. Reece is responsible for producing the traffic impact analysis portion of the Traffic Management Plan, which was also used in planning for the permanent and temporary signal timing plans. Reece also produced permanent signal plans for the LA 23 intersections at Engineers Road and at Burmaster Street. He evaluated STOP bar locations, calculated vehicle, and pedestrian clearance intervals, designed the railroad preemption sequence for both at-grade crossings, designed the wiring layout, and developed the interconnect plan. Reece maintains correspondence with the fellow design engineering team for product consistency. In addition, Reece reviewed and approved shop drawings that were submitted by the contractor.			



04/21 – Present	MOVEBR Direct Select for Traffic Signal Design, Baton Rouge, LA Reece is a project engineer for the design of traffic signal upgrades at 10 intersections. This project included a traffic design report, preliminary and final plans for traffic signals that included traffic signal layout, fiber interconnect layout, fiber splicing diagrams, pedestrian crosswalk layout, and sign layout. The design also included traffic signal synchronization signal timing and pedestrian signal timing.
02/20 – 09/21	College Drive Corridor Enhancement from Perkins Road to I-10 (Baton Rouge, LA) Reece was the task leader for organizing and formatting the data collection of the College Drive project limits. Tasks included in data collection were 7-day tube counts, intersection turning movement counts, approach tube counts, unmet demand observations, driveway counts, travel time runs, pedestrian / bicycle counts, and weaving counts.
07/19 – 12/19	Burgess Avenue at Duff Road Traffic Signal Design, Walker, LA Reece was responsible for the design of a fully actuated signalized intersection in the city of Walker, LA. The traffic signal was determined to meet signal warrants upon completion of the Foxglove subdivision in Livingston Parish, LA. Plans included road widening, signal face indication schedule, signal sequence chart, sign schedule, detector schedule, controller timing, wiring diagram, and free operation phasing diagram. Reece met with city officials to discuss the feasibility of constructing a traffic signal as opposed to other alternative measures for improving the intersection.
02/16 – 12/16	H.005733.5 US 190 Superstreet Task Order (St. Tammany Parish) Reece was a team member responsible for the layouts for the US 190 Superstreet signal designs. He created the preliminary plans using CAD software program MicroStation V8i. He aided in the technical design of each intersection. He conducted field inspections to verify locations of existing equipment as well as observing the area for feasible proposed utility locations. He attended project team meetings to discuss the project details as well as the plan-in-hand walk-through.
01/16 – 11/17	Ochsner Main Campus Traffic Signals (Jefferson Parish) Reece served as a design engineer for the traffic signal plans for the two Ochsner Main Campus access traffic signals with US 90 (Jefferson Hwy). The goal of the design was to implement updated pedestrian timings as well as optimize progression through the US 90 corridor. He reviewed traffic data and assigned time of day coordination timing parameters for the two intersections so that they may be included in the coordinated system west of the intersections. He used TruTraffic to determine the appropriate offset parameters so that vehicles may progress efficiently through the coordinated system. Plans for the two intersections were drafted in the form of DOTD's latest version of the TSI format. He was responsible for estimating construction quantities using DOTD's 2016 Spec Item list.
10/16 – 05/17	Loyola Interchange Modification Request, Kenner, LA Reece was a team member in the production of an Interchange Modification Report (IMR) for the I-10 at Loyola Dr. Interchange. He was an active member in collecting vehicle travel time data and processing the data. He also aided in collecting vehicle queues at the study intersections. He also assisted in the Vissim model calibration.
02/15 – 12/15	H.011646 Retainer Contract for DOTD District 02 Traffic Signal Inventories - Nola 3 Reece served as the lead engineer in the production of the traffic study for the District 02 Traffic Signal Inventories. The objective was to effectively correct the progression of traffic through the US 90 (Broad St) corridor. He reviewed vehicle crash data at all intersections in the study scope. He conducted travel time runs. He created a model with existing traffic signal timing information using Synchro 8 Software. He recommended traffic signal pedestrian clearance times and yellow and red clearance times for each intersection. He used MicroStation V8i when designing traffic signal plans in DOTD's TSI format.



## 16. STAFF EXPERIENCE



### Firm employed by VECTURA Consulting Services, LLC

Name	<b>Kristen Gahagan Farrington, PE, PTOE, RSP<sub>1</sub></b>		Years of relevant experience with this employer	2
Title	Project Traffic Engineer		Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization			BS / 2013 / Civil Engineering	
Active registration number / state / expiration date			PE No. 42785 / LA / 3-31-2025	
Year registered	2016	Discipline	Civil	
Contract role(s) / brief description of responsibilities			Project Engineer for TMP	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
05/23 – 07/23	H.013722 Morgan City Sidewalks & Shared Use Path (Morgan City, LA) Kristen was the lead engineer as part of a DOTD Safety IDIQ contract to document if an approach at a signalized intersection met the warrants listed in the Traffic Engineering Manual Sections 3B.2.4 and 3B.2.8 for a pedestrian marked crosswalk. The study also included an evaluation of a mid-block crossing based on the criteria set in Section 3B.2.7 of the Traffic Engineering Manual. The study consisted of vehicular and pedestrian counts, spot speed study, a safety analysis and field observations.
04/21 – Present	CP No. 16 CI-US-0032 Bus Rapid Transit (BRT) Improvement LLC Project (Baton Rouge, LA) Kristen a project engineer for a traffic design study and traffic signal design of 19 signals along three corridors: Plank Road, 22nd Street and US 190 (Florida Street). Kristen assisted the prime consultant with the safety analysis as well.
08/21 – 04/22	H.013267 Downtown to Scotlandville Parkway Trail Safety Enhancement Study (Baton Rouge, LA) Kristen was a project engineer for a design study to evaluate the recommended street crossing treatments of the trail at eight locations. The project consisted of collecting vehicular speed and volume data at the proposed trail crossings. Geometric field checks were also performed to determine if any hazards to pedestrians or cyclists existed. Once the field data was collected and analyzed, appropriate crossing treatments utilizing the FHWA STEP Guide for Improving Pedestrian Safety at Unsignalized Locations were developed that included Rectangular Rapid-Flashing Beacons (RRFB) and Pedestrian Hybrid Beacons (PHB’s). Currently, Vectura is developing plans for the PHB’s at four locations which will be the first implementation of PHB’s in the Baton Rouge area on a state route.
02/20 – 09/21	MOVEBR College Drive Enhancement Project (Baton Rouge, LA) Kristen assisted with the data collection task of the College Drive project limits. Tasks included in data collection were 7-day tube counts, intersection turning movement counts, approach tube counts, unmet demand observations, driveway counts, travel time runs, pedestrian / bicycle counts, and weaving counts.
6/19 – 2/21	H.013459 US 167 Improvements Stage 0 Elsie Street to Gilbert Street (St. Landry Parish, LA) Kristen served as project manager for a Stage 0 study to evaluate the addition of a third lane to US 167 from Elsie Street south to a point past Gilbert Drive. Environmental impacts and cost estimates were prepared, as well as a benefit-cost analysis of all improvements considered. Civil Engineer responsible for safety analysis including crash rate number method, over-representation, CATScan quality assurance, HSM existing safety analysis, and No-Build Analysis. Designed high-level concept exhibits and comparison matrix to determine best preliminary alternatives moving forward to meet the purpose and need of the project. Compiled meeting agenda materials and minutes.
6/19 – 2/21	H.013460 US 167 Improvements Stage 0 Enola Street to Ross Road (Evangeline Parish, LA) Kristen served as project manager for a Stage 0 study of a two-lane road to remove a curvilinear section of US 167 from Enola Street near LA 748, southeast for approximately 1.2 miles. The study compared connecting existing property owners to a new roadway with driveways or intersection of old roadway. Environmental impacts and cost estimates were prepared. Civil Engineer responsible for safety analysis including crash rate number method, over-representation, CATScan quality assurance, HSM existing safety analysis, and No-Build Analysis, as well as a benefit-cost analysis. Designed high-level concept exhibits and a comparison matrix to determine best preliminary alternatives moving forward to meet the purpose and need of the project. Compiled meeting agenda materials and minutes.



04/19 – 6/21	H.013817.1 LA 117 Improvements Stage 0 (Vernon and Natchitoches Parishes, LA) Kristen served as project engineer responsible for a Stage 0 study for 18 miles of two-lane LA 117 from LA 8 to LA 118. The study evaluated the impacts of correcting deficient vertical and horizontal geometry along the corridor, widening for the addition of shoulders, and adding passing lanes and turn lanes at strategic locations along the corridor. Kristen was responsible for performing the safety analysis including crash rate number method, over-representation, CAT Scan quality assurance, HSM existing safety analysis, and No-Build Analysis. Kristen designed high-level concept exhibits, evaluated environmental impacts, and prepared high level cost estimates and comparison matrices to determine which preliminary alternatives best meet the purpose and need of the project. Kristen compiled all findings in the Stage 0 report and coordinated with stakeholders and local agencies to ensure the purpose and need of project is met.
03/19 – 11/19	H.012311 LA 429 Connector Stage 0 (Ascension Parish, LA) Kristen was the task leader for the preparation of a Stage 0 study to evaluate alignments for a limited-access corridor (LA 429) near I-10, between LA 30, LA 73, and US 61. Two alternatives for the widening and reconstruction of LA 429 were evaluated. The scope consisted of stakeholder and public meetings, site visits and data collection, phasing of alternative development for the corridor, scope and budget checklists, and an opinion of probable cost to prepare the Stage 0 Report. Kristen served as the civil engineer responsible for designing high level concept exhibits and comparison matrix to determine best preliminary alternatives moving forward to meet the purpose and need of the project. Compiled meeting agenda materials and minutes, coordinated with interchange study consultants for a cohesive project, and wrote report.
11/18 - 3/21	H.013322 LA 3040 Feasibility / Safety Study Stage 0 (Houma, LA) Kristen served as project engineer for a study to identify safety and operational issues along 2.5 miles of Martin Luther King Boulevard (LA 3040) in Houma, LA to evaluate reasonable alternatives to address any deficiencies discovered. Kristen was responsible for compiling a data collection plan for submittal to DOTD, including count locations, determined peak periods, and peak hours. Kristen performed peak period observations in the field and geometric field checks, as well as unmet demand observations and calculations. Kristen prepared TMC figures, as well as performed existing analysis in Vistro. Compiled all data collected into Appendices A and B per the DOTD Traffic Process and Report and wrote Chapter 1 of report. Kristen represented the project at stakeholder meetings to discuss project status.
04/18 – 04/19	H.011243.1 I-49 at US 190 and LA 31 Interchange Improvements Stage 0 (St. Landry Parish, LA) Kristen was the project engineer responsible for crash and safety analysis, report writing, planning, and designing for this Stage 0 Study to evaluate alternatives to improve traffic operations and safety at the I-49 interchanges with US 190 and LA 31. Crash and safety analysis was performed using the LADOTD CAT Scan tool and IHSDM, and line and grade was prepared to DOTD Design Standards for various corridors, including arterial collectors and freeway ramps. Close coordination with traffic engineer ensured maximum improvement of safety and operations given limited right-of-way and utility conflicts along the corridors.
09/17 – 09/18	H.011160 LA 73 Corridor Study Stage 0 LA 74 to LA 621 (Ascension Parish, LA) Kristen was the designer responsible for concept development, report writing, and impact analysis for a Stage 0 study. The purpose of the study was to evaluate conceptual alternatives to improve capacity and operations along the LA 73 corridor and its connecting transportation network. The scope included the evaluation of three interchange configurations for the interchange of I-10 at LA 73 in conjunction with two corridor alternatives for LA 73, resulting in six different alternatives for which line and grade, impacts, and high-level cost estimates were prepared.
11/16 – 07/17	H.001271 Cane River Bridge Church Street Route LA 1-X Environmental Assessment Kristen was the project engineer responsible for assisting with the site visits, data organization, analysis of permanent alternatives and traffic control alternatives, and traffic report to aid in the delivery of an environmental assessment for the Cane River Bridge Replacement





## 16. STAFF EXPERIENCE

	<b>Firm employed by VECTURA Consulting Services, LLC</b>				
	Name	<b>Bridget Scheyd Robicheaux, PE, PTOE (Part-Time)</b>		Years of relevant experience with this employer	6
	Title	Project Traffic Engineer		Years of relevant experience with other employer(s)	9
	Degree(s) / Years / Specialization		BS / 2007 / Civil Engineering; MS / 2014 / Civil Engineering		
	Active registration number / state / expiration date		PE No. 41272 / LA / 3-31-2025		
	Year registered	2016	Discipline	Civil	
	Contract role(s) / brief description of responsibilities		Project Engineer for Traffic Control Design, Traffic Signal Analysis and Design / TMPs / Peer Reviews		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
07/21 – Present	H.007160 EBR Computerized Traffic Signal, Phase VB (Baton Rouge) Bridget has reviewed the signal mast arm shop drawings to assist the City-Parish of Baton Rouge in accepting the manufactured poles. Bridget also reviewed the traffic signal supports and documented all of her comments in a quality control tracker spreadsheet.				
06/21 – 06/21	CP No. 16 CI-US-0032 Bus Rapid Transit (BRT) Improvement Project (Baton Rouge, LA) Bridget assisted with the traffic signal design of 19 signals along three corridors: Plank Road, 22nd Street and US 190 (Florida Street).				
03/21 – 07/22	H.007160 - EBR Computerized Traffic Signal, Phase VB (Baton Rouge, LA) Bridget is part of the team responsible for Construction Engineering and Inspection. Bridget has reviewed the signal mast arm shop drawings (checking pole quantities and markups) to assist the City-Parish of Baton Rouge in accepting the manufactured poles.				
04/20 – 07/20	H.004791 DOTD Belle Chasse Bridge & Tunnel Replacement Public-Private Partnership Project (Belle Chasse, LA) Bridget assisted the project engineer who designed the temporary traffic signal for the intersection of LA 23 at Engineers Rd by pulling crash data along LA 23, reviewing and summarizing crash reports, and performing CATScan analysis.				
04/19 – 01/20	Traffic Studies for Broussard Middle School and Billeaud Elementary School (Lafayette Parish, LA) Bridget was the project engineer for developing a Traffic Study for two school entrances in Broussard, LA. Her project tasks included traffic data collection, forecast traffic volume development, existing traffic analyses and future traffic analyses using HCM software. She performed turn lane warrants based on NCHRP Report Number 457 as well as storage lengths based on queues and DOTD requirements.				
07/19 – Present	MOVEBR New Capacity Projects Program Management (Baton Rouge, LA) Bridget assists Brin on a daily basis for the entire New Capacity Projects program management team. Bridget has performed multiple reviews of traffic studies and traffic signal designs. This includes reviewing raw data, unmet demand, volume maps, existing and build analyses, and safety analyses for accuracy and consistency throughout the report. She provides comments in a spreadsheet known as the Comment Tracker. All comments are posted in the Comment Tracker so that all parties are aware. Many of these projects are located on state routes and require approval by the Traffic Engineering staff of DOTD and EBR Traffic Engineering Department. She understands the current requirements for all aspects of traffic engineering projects. Using methods outlined in NCHRP 765, Bridget helped to develop design year volumes for the Jones Creek (Airline to Jefferson) MOVEBR project. She has developed Turn Lane tech memos for the MOVEBR Old Hammond Highway Segments 1A and two projects and for the MOVEBR Highland at Siegen project.				
07/18 – 04/19	LA 1 Pedestrian Crosswalk Study and Traffic / Pedestrian Signal Design West Baton Rouge Parish, Addis, LA Bridget assisted Brin with the crosswalk study by pulling and formatting the crash data. She also assisted Brin with the crash analysis and formatting the findings.				



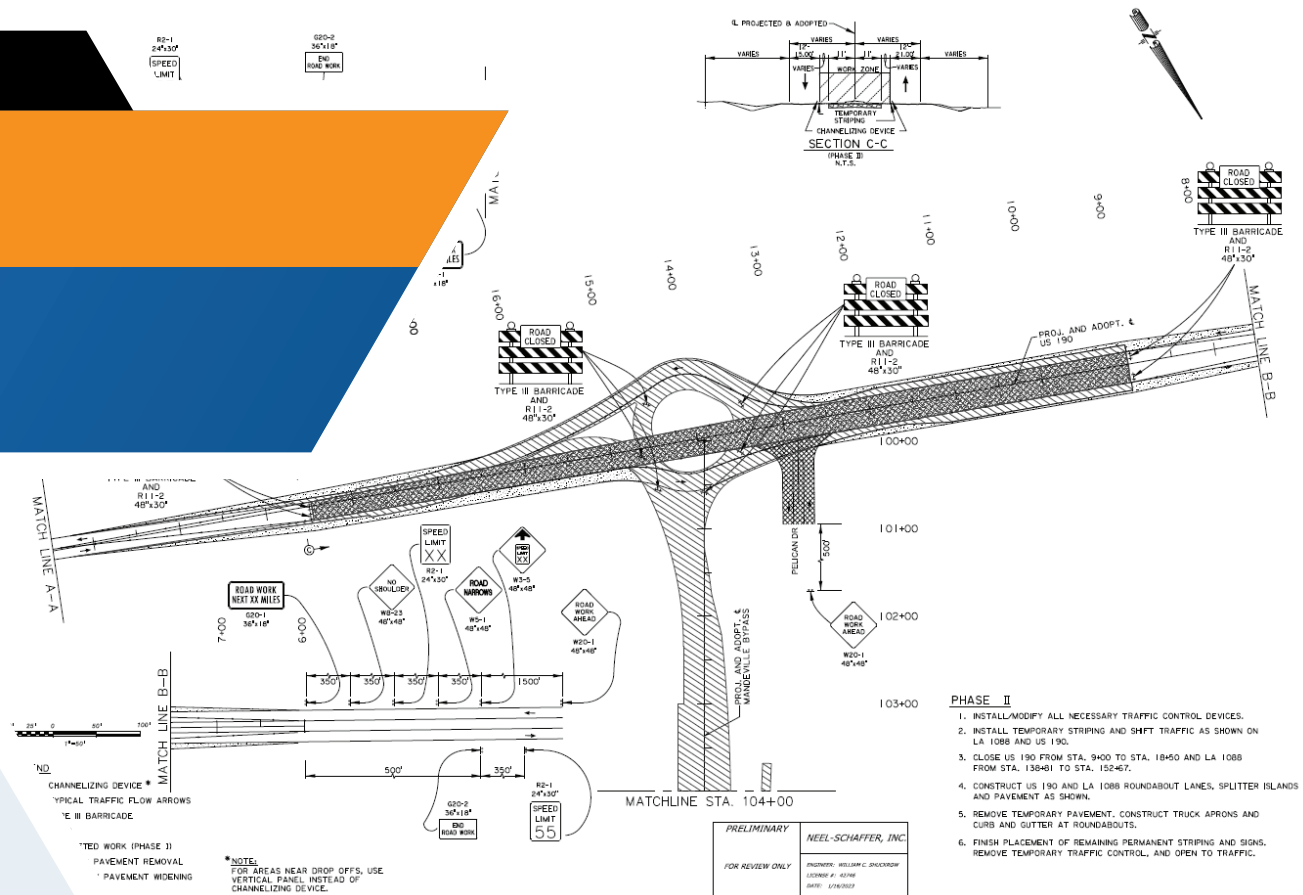
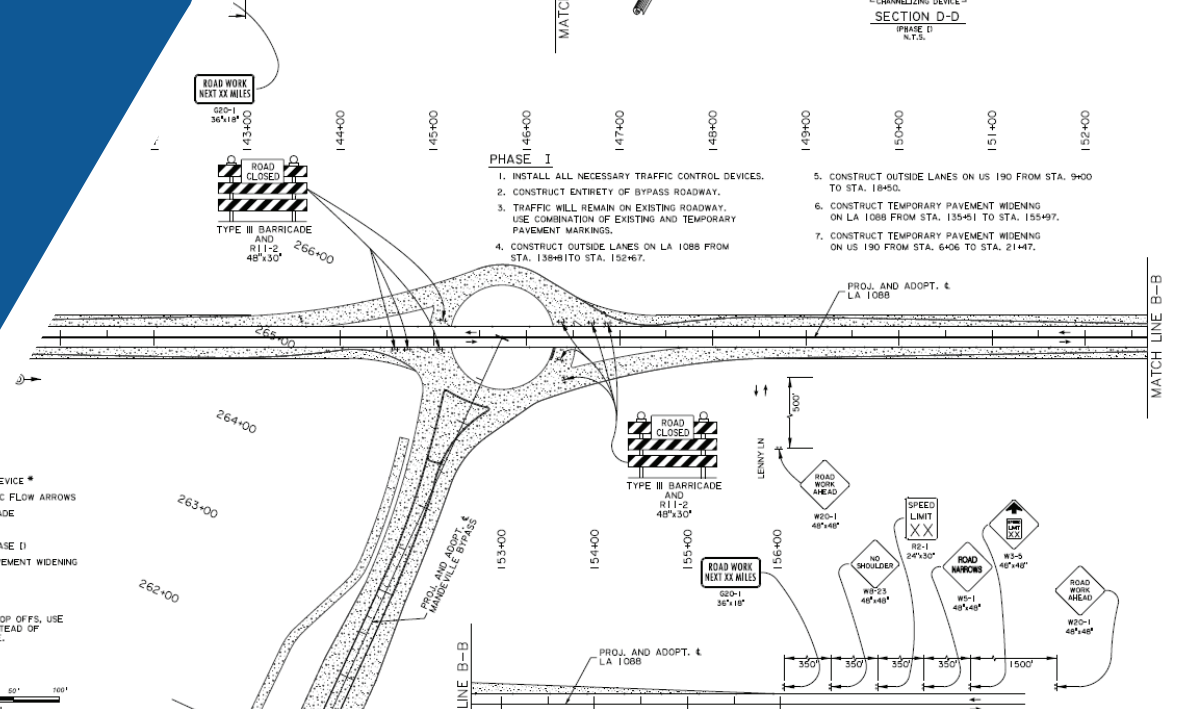
10/17 – 07/18	Travel Demand Model Update: Southeast Louisiana Travel Model (New Orleans, LA) Bridget developed base year traffic volumes to calibrate and test of the regional travel demand as part of updating the New Orleans Regional Planning Commission Travel Demand Model in TransCAD. Specifically, Bridget obtained and reviewed the over 4,000 traffic counts (cars / trucks) that were used in the validation of the SELATRAM model to check for consistency, reasonableness, and completeness. She tabulated her results in a spreadsheet that was included in a technical memorandum.
09/17 – 11/17	US 11 (Front St.) at US 190 Bus. (Fremaux Ave.) Traffic Study (St. Tammany Parish, LA) Bridget participated in the development of a Crosswalk Traffic Engineering Study for the City of Slidell as part of improvements to the intersection of US 11 (Front St.) at US 190 Bus. (Fremaux Ave.). Bridget processed raw traffic videos and developed AM and PM peak period turning movement vehicle count figures. She also assisted Brin with a PTV Vistro model for the AM and PM Peaks for the five intersections for capacity analyses as well as progression analyses. She also developed portions of the report.
02/17 – 10/17	Judge Tanner Boulevard at N. Causeway Roundabout Study (St. Tammany Parish, LA) Bridget participated in the development of a Stage 0 Feasibility Study for roundabouts at four intersections in St. Tammany Parish. The scope was developed based on EDSMs VI.1.1.1 / VI.1.1.5 and DOTD Traffic Engineering Manual Section 20.2. Bridget developed traffic turning movement counts for morning and evening peak periods including peak hour factor and heavy vehicle percentages. Growth rates for design year volumes were also developed based on information provided from the TransCAD model. She performed portions of the Sidra unsignalized, signalized and roundabout analyses for implementation and design years and report development.
06/16 – 09/17	H.004490 Stage 0 Roundabout Studies, (Lafayette Parish, LA) Bridget assisted with developing a Stage 0 Feasibility Study for roundabouts at seven intersections in the Lafayette area. The scope was developed based on EDSMs VI.1.1.1 / VI.1.1.5 and DOTD Traffic Engineering Manual Section 20.2. Bridget developed traffic turning movement counts diagrams for peak periods including peak hour factor and heavy vehicle percentages. She developed the speed data analyses as well as assisted with performing Sidra unsignalized, signalized and roundabout analyses for implementation and design years. Bridget also developed several figures that were included in the report.



Another key to the successful completion of this project is maintenance of traffic. This is a major corridor within Ascension Parish which provides access to many residential developments and development is anticipated to grow. We will provide sequence of construction plans which maintains the existing number of lanes, like we have done for many of our projects including the LA 1088 roundabout in St. Tammany Parish. Two phases are shown on this page.

# Section 17

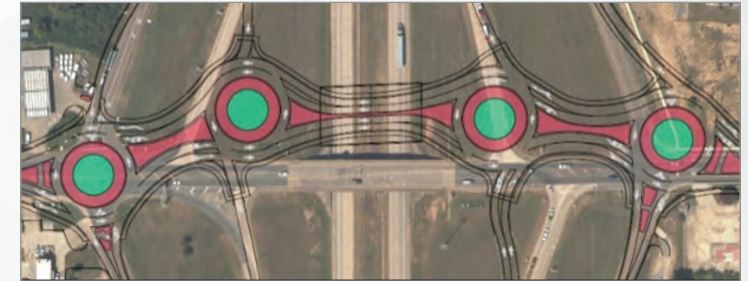
Contract No. 4400028432  
**LA 44: I-10 Roundabouts**  
**Route: LA 44 & I-10**



## 17. FIRM EXPERIENCE

Firm Name	Neel-Schaffer, Inc.		Past Performance Evaluation Category(ies)*	Road
Project name	I-20: LA 544 Overpass Replacement		Firm responsibility (prime or sub?)	Prime
Project number	H.010616		Owner's name	LADOTD
Project location	Lincoln Parish, LA		Owner's Project Manager	Jacob Fusilier, PE
Owner's address, phone, email	PO Box 94245, Baton Rouge, LA 70804   225.379.1185   jacob.fusilier@la.gov			
Services commenced by this firm (mm/yy)	02/20	Total consultant contract cost (\$1,000's)	\$858	
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm (\$1,000's)	\$858	

Neel-Schaffer is currently working on the 95% final plans for this project. NSI is responsible for providing the preliminary and final roadway plans, traffic control design QA/QC, TMP and signal design QA, Sequence of Construction, hydraulic analysis and design, and MOT which maintains access to properties during construction. This project will replace the LA 544 Overpass diamond interchange with a roundabout diamond interchange. The project includes **four multilane roundabouts (two entrance/exit ramps at 3% grade)**, a new bridge over I-20, roadway improvements to I-20 and the ramps, and roadway widening (from 2 to 4 lanes) along LA 544 an urban arterial roadway. The bridge design and retaining wall design will be completed by DOTD.



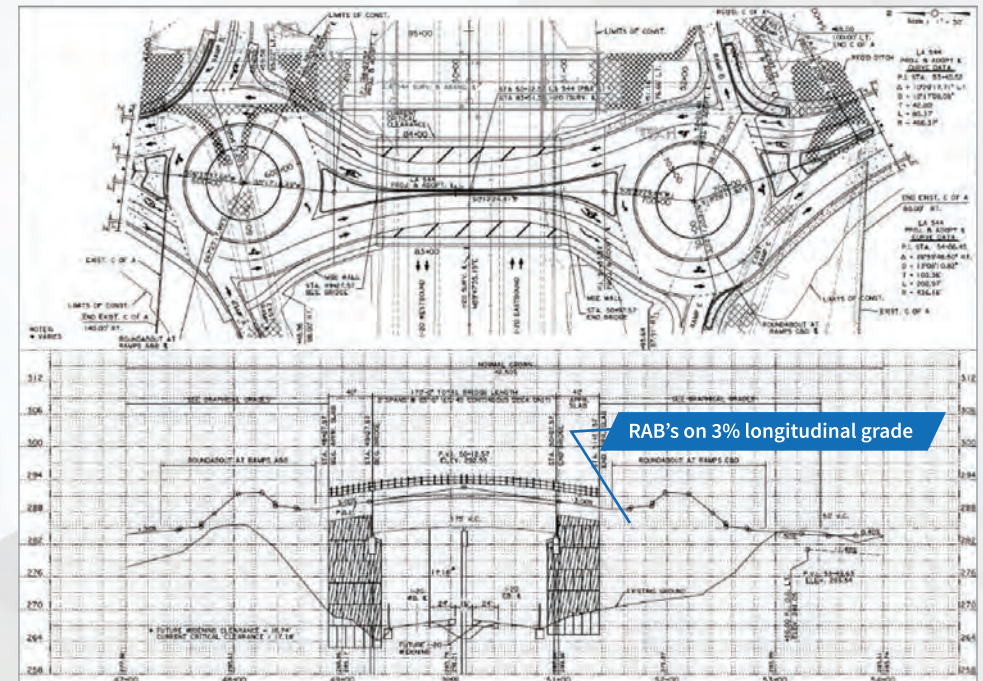
### Challenges:

1. Multilane roundabouts on 3% longitudinal grade, in high fill, partially on bridge & open to traffic.
2. Large grade changes required along ramps without impacts to the gores.
3. Structural design by DOTD while roadway design is completed by consultants.

### Solutions:

1. NSI designed 65 pages of 13 phased construction with models to consider each phase and final joint layout and elevations.
2. NSI provided for a variation in the ramp design speed (between the ramp proper and terminal) which provided ramp vertical alignments that met the design requirements but prevented changes in access that might require an IMR.
3. NSI completed the design in close coordination with DOTD early on and continually during the design process. NSI proposed alignments minimized the construction phasing for retainage walls, provided for interstate clearances which would allow for future interstate widening and provided desirable bridge phasing while minimizing impacts. NSI and DOTD are working as one team to successfully complete the project.

**Firm Members:** Dishili Young, Mai Nguyen, Chance Shuckrow, Scott Andrepont, Josh Schexnider, Frank Standige, Jacob Thiaville



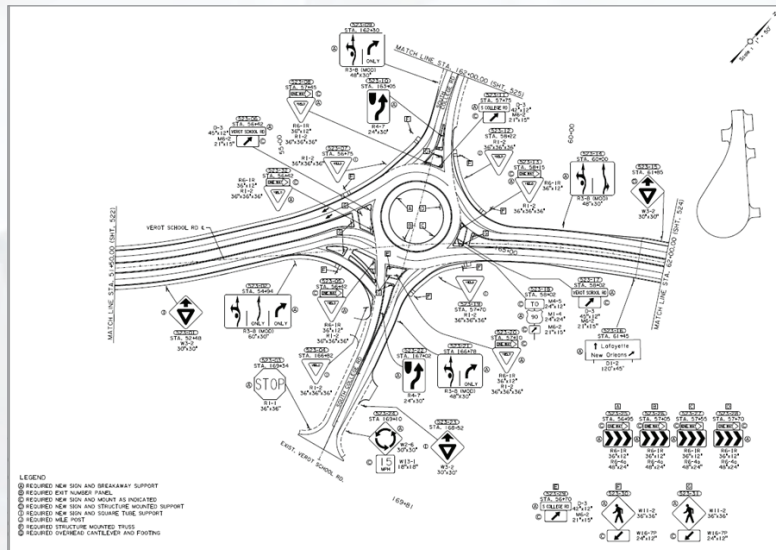
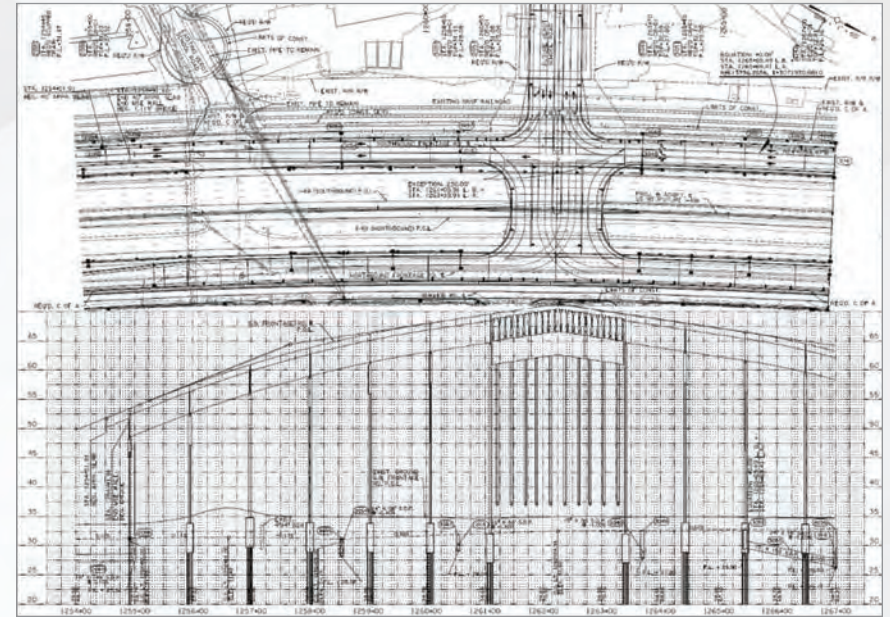
## 17. FIRM EXPERIENCE

Firm Name	Neel-Schaffer, Inc.		Past Performance Evaluation Category(ies)*	Road
Project name	I-49 South @ Verot School Road		Firm responsibility (prime or sub?)	Sub
Project number	H.011235.5		Owner's name	LADOTD
Project location	Lafayette Parish, LA		Owner's Project Manager	Corey Landry, PE
Owner's address, phone, email	1202 Capitol Access Road, Baton Rouge, LA 70802   225.379.1889   corey.landry@la.gov			
Services commenced by this firm (mm/yy)	07/16	Total consultant contract cost (\$1,000's)	\$ 724	
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm (\$1,000's)	\$ 724	

This project will provide 2.4 miles of mainline freeway and an interchange at the intersection of I-49 South/US 90 and Verot School Road, in Lafayette, LA. The proposed project also includes one-way frontage roadways on both sides of the mainline urban freeway, a two-way service road, new bridge interchange, MSE walls, and a new alignment for Verot School Road which includes a multilane roundabout at the relocated intersection of South College and Verot School Road. This project will include close coordination with BNSF RR due to crossings and drainage impacts associated with the mainline corridor.

NSI is providing **roadway design services for the proposed interstate, frontage roadways, and associated drainage**. NSI is also providing **traffic design services**, signage design and **TMP 2** for the entire project. This project is currently in the 95% Final Design phase.

**Firm Members:** Nick Ferlito, Dishili Young, Mai Nguyen, Charles Adams, Jacob Thiaville, Ryan Lam, Steve Perault



- ✓ Level 2 TMP
- ✓ Traffic services
- ✓ Multilane roundabout
- ✓ Designed using DOTD guidelines & software
- ✓ Work along existing roads
- ✓ Sequence of construction for roads open to traffic
- ✓ Temporary traffic signal design
- ✓ Utility avoidance

Project Relevance:

## 17. FIRM EXPERIENCE

Firm Name	<b>Neel-Schaffer, Inc.</b>		Past Performance Evaluation Category(ies)*	Road
Project name	<b>LA 1026 (Juban Rd) Widening (I-12 to US 190)</b>		Firm responsibility (prime or sub?)	Prime
Project number	H.004634		Owner's name	Livingston Parish / LADOTD
Project location	Livingston Parish, LA		Owner's Project Manager	Peggy Paine, PE
Owner's address, phone, email	PO Box 94245, Baton Rouge, LA 70804   225.379.1065   peggy.paine@la.gov			
Services commenced by this firm (mm/yy)	08/12	Total consultant contract cost (\$1,000's)	\$877	
Services completed by this firm (mm/yy)	03/19	Cost of consultant services provided by this firm (\$1,000's)	\$877	

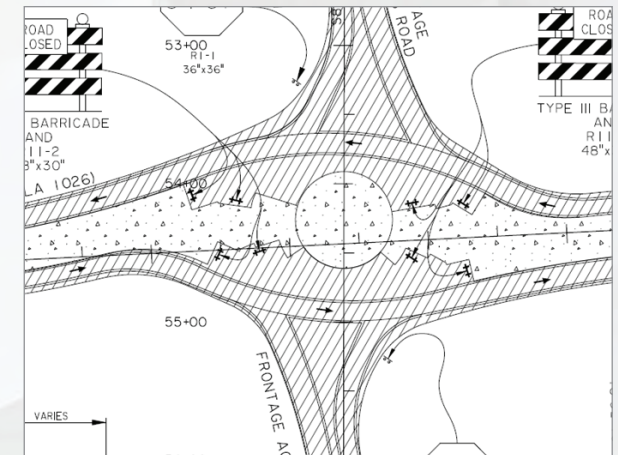
Neel-Schaffer was selected as prime consultant to complete the **preliminary and final roadway plans, hydraulic analysis and design**, construction **cost estimates**, and **construction support**. The project includes **three multilane roundabouts** and will widen existing LA 1026 (Juban Road), an Urban Arterial roadway, from an existing two-lane road with side ditches to a four-lane Blvd with storm sewer drainage, roadside ditches and a combination of both along select segments of the roadway. The intersection of LA 1026 (Juban Road)/US 190 (Florida Blvd) will be improved with a roundabout in this project. *The images below show how the Sequence of Construction considered the joint layouts during construction phasing. The bottom image shows the overall project in concept form. Project is currently under construction.*

**Project Challenge/Solution:** The project was let as two design packages which required roadway design (horizontal and vertical alignments) and drainage designed to work for both phases; Interim build and full build conditions.

**Firm Members:** Dishili Young, Chance Shuckrow, Scott Andrepont, Mai Nguyen, Charles Adams

### Project Relevance:

- ✓ Includes three multilane roundabouts (RAB's) with PCCP
- ✓ RAB construction phasing on existing DOTD corridor
- ✓ Utility avoidance
- ✓ Close coordination with local entity and stakeholders



This project begins at the intersection of LA 1026 (Juban Road) and the I-12 north interchange ramps and continues to the intersection of LA 1026 (Juban Road) and US 190 (Florida Blvd) and ends approximately 2,000 feet east and west along US 190 (Florida Blvd) from the intersection of LA 1026 (Juban Road).

## 17. FIRM EXPERIENCE

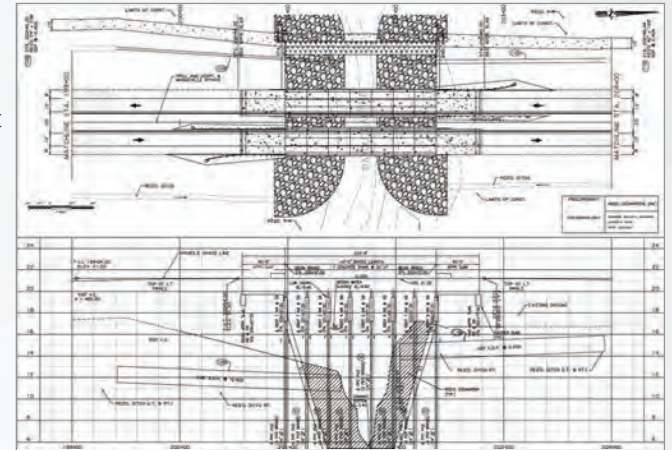
Firm Name	Neel-Schaffer, Inc.		Past Performance Evaluation Category(ies)*	Road
Project name	Mandeville Bypass		Firm responsibility (prime or sub?)	Sub
Project number	N/A		Owner's name	St. Tammany Parish
Project location	Mandeville, LA		Owner's Project Manager	Laura B. Gatlin, PMP
Owner's address, phone, email	620 N Tyler Street, Covington, LA 70434   985.898.2552   lcbach@stpgov.org			
Services commenced by this firm (mm/yy)	07/15	Total consultant contract cost (\$1,000's)	\$2,000	
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm (\$1,000's)	\$550	

The Mandeville Bypass will provide a new three-mile median section roadway with integral bike bath connecting LA 1088 near its interchange with I-12 and US 190 near Fontainebleau Park. It will also provide **five multilane roundabouts (2 along DOTD roadways)**. Neel-Schaffer completed the public involvement, traffic analysis, completing the preliminary and final roadway plans, traffic control design, MOT, utility coordination, construction cost estimates, and construction support. Neel-Schaffer is also leading the environmental planning for the project as well as permitting as may be required.

**Challenge:** Pipeline conflicts

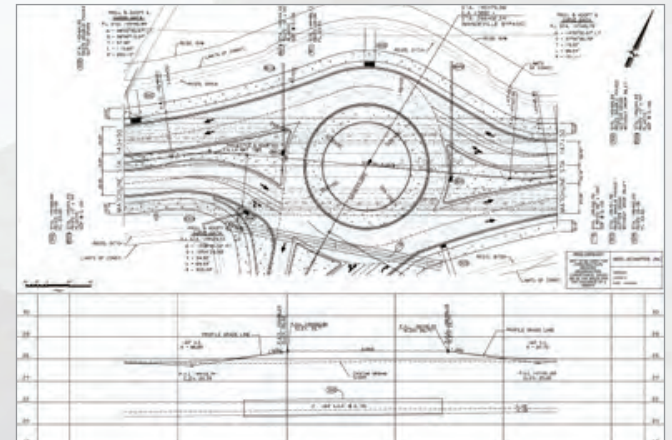
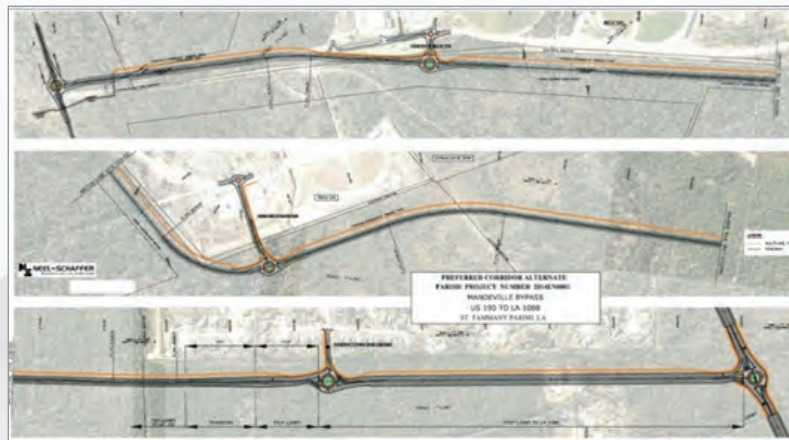
**Solution:** NSI coordinated closely with pipeline owners, assisted with locating lines and depths in the field and based on map data and provided revisions to drainage design to provide the necessary cover. The final roadside drainage included concrete lined ditches over the pipelines.

**Firm Members:** Dishili Young, Scott Andrepont, Chance Shuckrow, Barry Brupbacher, Mai Nguyen, Josh Schexnider, Jacob Thiaville, Ryan Lam, Steve Perault



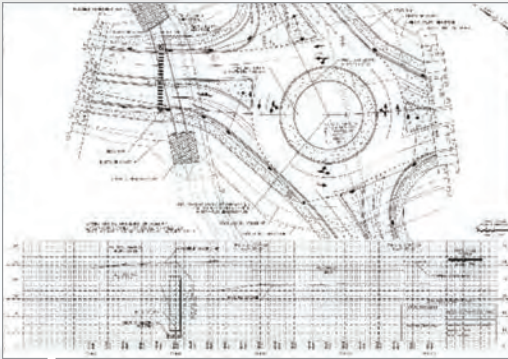
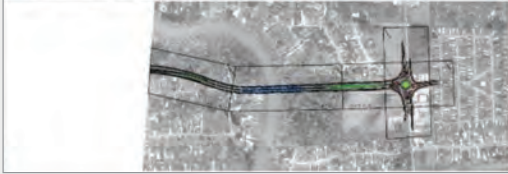
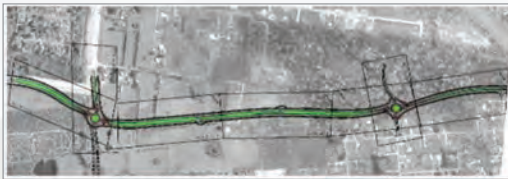
### Project Relevance:

- ✓ Multilane roundabouts along two state highways
- ✓ Designed using DOTD guidelines & software
- ✓ Designed in conformance with NCHRP Report 672 *Roundabouts: An Informational Guide (Second Edition)*
- ✓ Work along existing roads
- ✓ Sequence of construction for roads open to traffic.
- ✓ Utility and pipeline avoidance



## 17. FIRM EXPERIENCE

Firm Name	Neel-Schaffer, Inc.		Past Performance Evaluation Category(ies)*	Road & Bridge
Project name	South City Parkway Traffic Study, Road Design, & Environmental Assessment		Firm responsibility (prime or sub?)	Prime
Project number	500-15-082 / P O 156297		Owner's name	Lafayette Consolidated Government
Project location	Lafayette, LA		Owner's Project Manager	Mitchell P. Wyble, PE
Owner's address, phone, email	PO Box 4017 - C, Lafayette, LA 70502   337.291.8542   mwyble@lafayettela.gov			
Services commenced by this firm (mm/yy)	11/15	Total consultant contract cost (\$1,000's)	\$750	
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm (\$1,000's)	\$750	



Southcity Parkway will provide a new 1.8-mile, four-lane median divided roadway connecting US 167 (Johnston Street) with Kaliste Saloom Road, including **three multi-lane roundabouts** and a new fixed span **bridge** crossing of the Vermillion River. Neel-Schaffer is providing design services which include roadway, **bridge**, and drainage design. The roadway design is in conformance with the LADOTD guidelines with the use of MicroStation and InRoads.

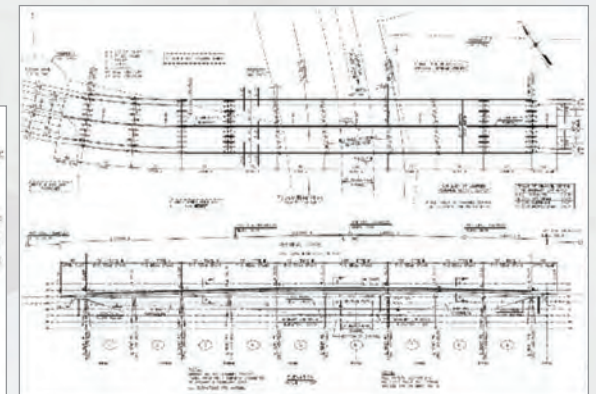
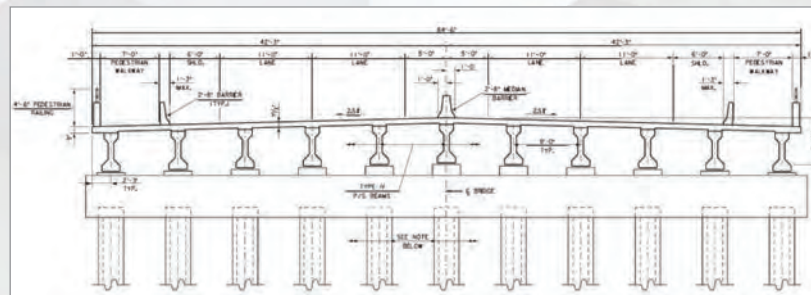
Neel-Schaffer completed the EA, technical studies, line and grade, **roadway and bridge design**, established US Coast Guard navigation clearances; completed an H&H analysis for the new proposed Vermilion River bridge crossing, obtained the no rise certification, and completed an H&H analysis for each drainage crossing and the roadway drainage system. The road design was completed using InRoads and MicroStation. The Vermilion River bridge crossing was analyzed using a one-dimensional unsteady flow model which was developed in HEC-RAS software. The roadway drainage for the 2-mile roadway corridor was analyzed with the use of LADOTD software. Peak flows were determined with the use of the rational method, with considerations for future development. The results were summarized in the form of a technical report.

In addition to providing the design services, Neel-Schaffer is also providing the environmental planning (Environmental Assessment, USCG permit, navigation studies), completed the public involvement, developed **traffic forecasts**, provided **traffic analysis**, and will provide construction services.

**Firm Members:** Dishili Young, Mai Nguyen, Chance Shuckrow, Scott Andrepont, Barry Brupbacher, Charles Adams

### Project Relevance:

- ✓ Designed using DOTD guidelines & software
- ✓ Includes similar design SOW (multilane roundabouts, bridge design, drainage design, H&H, traffic permitting, roadway widening, roadway realignment and reconstruction)





## 17. FIRM EXPERIENCE

Firm Name	<b>Crescent Engineering &amp; Mapping, LLC</b>		Past Performance Evaluation Category(ies)*	Road
Project name	<b>LA 3127 Widening (LA 20 to LA 3213)</b>		Firm responsibility (prime or sub?)	Prime
Project number	TBD		Owner's name	St. James Parish Government
Project location	Vacherie, LA		Owner's Project Manager	Ryan Larousse
Owner's address, phone, email	5800 LA Hwy 44, Convent, LA 70723 225-206-1379 ryan.larousse@stjamesparishla.gov			
Services commenced by this firm (mm/yy)	04/22	Total consultant contract cost (\$1,000's)	\$1,525	
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm (\$1,000's)	\$1,180	

The LA 3127 Widening project involves widening 3.5 miles of existing 2-lane roadway to a 4-lane divided section with a 64' wide, depressed median, directional U-turns, Restricted Crossing U-turns (R-CUT's) and **multi-lane roundabouts at LA 3213 and LA 20**. The project includes traffic studies, feasibility, planning/environmental, topographic surveys, roadway design, geotechnical, and contract management. The traffic study was prepared in accordance with LADOTD TEPR guidelines and all project scoping including survey and roadway design is in accordance with LADOTD design guidelines and requirements for plan production due to current state funding and anticipated federal funding.

Crescent Engineering & Mapping, LLC is the prime consultant for the project and is responsible for all topographic surveying, hydraulic analysis, roadside drainage, Level 3 TMP, roadway design, roundabout design, Inroads modeling, utility coordination, permit drawings and agency coordination, subconsultant coordination, and plan production for Preliminary and Final plans. The project's design and drawings are also being developed per LADOTD design guidelines and plan requirements using Microstation/Inroads. Construction cost is estimated at over \$12 million. Crescent has completed all surveying and traffic studies associated with the intersection improvements and is currently working on the 60% Preliminary Plans, which are due in March 2024.

**Firm Members:** Dennis M. Hymel Jr., PE, Paul Olivier, PE, Abbey Falcon, PE, Kelly Jones, Luke Bourg, James Ledet, PE



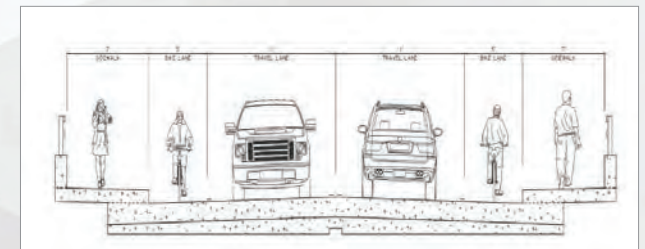
## 17. FIRM EXPERIENCE

Firm Name	<b>Crescent Engineering &amp; Mapping, LLC</b>		Past Performance Evaluation Category(ies)*	Road, Bridge
Project name	<b>McHugh Road over Brushy Bayou</b>		Firm responsibility (prime or sub?)	Prime
Project number	H.014992		Owner's name	Louisiana Department of Transportation & Development (LADOTD)
Project location	Baker, LA		Owner's Project Manager	Barbara Ostuno, P.E.
Owner's address, phone, email	1201 Capitol Access Rd., Baton Rouge, LA 70802 225-379-1047 barbara.ostuno@la.gov			
Services commenced by this firm (mm/yy)	12/22	Total consultant contract cost (\$1,000's)	\$147	
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm (\$1,000's)	\$135	

The McHugh Road over Brushy Bayou project involves the replacement of an existing 24' x 57', 3-span concrete bridge and adjacent shared use pedestrian/bicycle path in East Baton Rouge Parish near Baker, LA. Included in this urban project are associated roadway and sidewalk/pedestrian facilities. The replacement structure will include 7' wide cantilever sidewalks and 5' bike lanes on both sides of the bridge structure. The project includes topographic surveys, bridge design, roadway design, and environmental. The bridge structure is 32' clear, skewed 23' RC slab spans in order to mitigate major utility conflicts. The bridge is being designed using OpenBridge Designer, STAAD, and LRFR using AASHTOWare BrR.

Crescent Engineering & Mapping, LLC is the prime consultant for the project and is responsible for the topographic surveys, hydraulic analysis, roadway design, special bridge design, sidewalk/bike path design, and roadway/bridge plan production. Hydraulic analysis was performed using GeoHEC-RAS as well as LADOTD HYDRWIN programs for storm drainage networks. All LADOTD design criteria, Complete Streets policies and plan production requirements including Bentley Microstation/Inroads and CadConform are being followed per LADOTD contract requirements. Crescent has completed survey, hydraulics, roadway/bridge design and Preliminary Plans. Final Plans will begin after NEPA clearance is obtained.

**Firm Members:** Dennis Hymel Jr., PE, Abbey Falcon, PE, Paul Olivier, PE, Kelly Jones, Luke Bourg, James Ledet, PE



## 17. FIRM EXPERIENCE

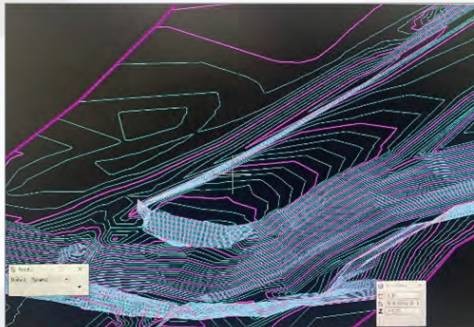
Firm Name	<b>Crescent Engineering &amp; Mapping, LLC</b>		Past Performance Evaluation Category(ies)*	Road, Bridge
Project name	<b>Tangipahoa IJJA Bridge Replacements</b>		Firm responsibility (prime or sub?)	Prime
Project number	H.015404, H.015407, H.015333		Owner's name	Tangipahoa Parish/LADOTD
Project location	Tangipahoa Parish/Dist. 62		Owner's Project Manager	Misty Evans, P.E./Ryan Rodney
Owner's address, phone, email	206 E. Mulberry St., Amite, LA 70422 985-244-6880 mevans@tangipahoa.org			
Services commenced by this firm (mm/yy)	04/22	Total consultant contract cost (\$1,000's)	\$677	
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm (\$1,000's)	\$447	

The Tangipahoa Parish IJJA Bridges is part of the District 62 IJJA (BIL) bridge replacement project and involves the replacement of 4 bridge structures on E. Lewiston, Easley and Old Genessee roads in Tangipahoa Parish. Grouped into three (3) state projects, each project includes topographic surveys, hydraulics analysis, scour, bridge design, roadway design, geotechnical, environmental and contract management.

Crescent Engineering & Mapping, LLC is the prime consultant for the project and is responsible for the topographic surveys, hydraulic analyses and modeling, scour analyses, bridge design, roadway design, LRFR, utility surveys and roadway/bridge plan production. Hydraulic analysis was performed using GeoHEC-RAS and HEC-HMS as well as LADOTD's HYDRWIN for roadside drainage. Structures and RCB's are being rating using AASHTOWare BrR.

Crescent has completed the topographic surveys, hydraulic analysis, road design, bridge design and Preliminary Plans. Categorical Exclusion Documents have been submitted to DOTD for all three projects and are pending approval. The Final Geotechnical Data Report, including Geotechnical Exploration Logs, have been submitted for all three projects.

**Firm Members:** Dennis M. Hymel Jr., PE, Abbey Falcon, PE, Kelly Jones, Luke Bourg, Paul Olivier, PE, James Ledet, PE



## 17. FIRM EXPERIENCE

Firm name	<b>Vectura Consulting Services, LLC</b>		Past Performance Evaluation Category(ies)*	Traffic
Project name	<b>I-10 ITS Scott to Lake Charles</b>		Firm responsibility (prime or sub?)	Sub
Project number	H.013256.5		Owner's name	DOTD
Project location	I-10 (District 07)		Owner's Project Manager	Roy Esteven, PE
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802, 225-379-2527, Roy.Esteven@LA.gov			
Services commenced by this firm	01/21	Total consultant contract cost (\$1,000's)	Unknown	
Services completed by this firm	03/21	Cost of consultant services provided by this firm (\$1,000's)	\$20,162	

Vectura performed a Level 2 Traffic Management Plan (TMP) for the construction of ITS equipment along I-10. The plan included the following activities:

- Safety strategy that included a CAT Scan,
- LOS determination utilizing Citrix data,
- Lane closure recommendations based on a queue analysis,
- Cost estimate,
- Public information strategies.

**Firm Members:** Laurence Lambert, Brin Ferlito, Reece Rodrigue, Kristen Farrington



## 17. FIRM EXPERIENCE

Firm name	<b>Vectura Consulting Services, LLC</b>		Past Performance Evaluation Category(ies)*	Traffic
Project name	<b>Roundabout: US 171 at Boone St.</b>		Firm responsibility (prime or sub?)	Sub
Project number	H.011909.5		Owner's name	DOTD
Project location	Vernon Parish, LA		Owner's Project Manager	Josh Harrouch
Owner's address, phone, email	PO Box 94245 Baton Rouge, LA 70804-9245, (225) 242-4640, Joshua.Harrouch@LA.GOV			
Services commenced by this firm	04/17	Total consultant contract cost (\$1,000's)	Unknown	
Services completed by this firm	12/20	Cost of consultant services provided by this firm (\$1,000's)	\$82.045	

Vectura designed temporary traffic signal plans as part of the sequence of construction plan for a roundabout construction at the intersection of US 171 at Boone Street in Leesville, LA. The purpose of the project was to replace the existing signalized intersection with a multilane roundabout at Boone Street.

### Temporary Traffic Signal Design

Vectura performed following design tasks to develop temporary traffic signal plans:

- Detailed study of sequence of construction plans to determine the optimal traffic signal operation and required traffic signal equipment for each sequence of construction phase
- Reviewed potential access issues for all the impacted driveways / streets along the project area for each sequence of construction phase
- Developed multiple traffic signal timing plans by time of day for each sequence of construction phase to maintain progression along main corridor
- Developed temporary signal plans including pole and span wire layout, signs, striping, power source, signal timings by time of day, vehicle detection, signal head placement, wiring diagram, pole height calculations, clearance calculations, quantities, construction cost estimate
- Coordinated with DOTD Traffic Section and District Traffic Engineer

### Quality Control Review

Vectura provided Quality Control review of signing and striping plans at 30% and 60% plan sets to ensure the roundabouts conformed to the Pavement Markings Details Sheet PM-09 and the Manual on Uniform Traffic Control Devices (MUTCD) details on roundabouts.

**Firm Members:** Brin Ferlito, Reece Rodrigue, Laurence Lambert, Bridget Robicheaux



## 17. FIRM EXPERIENCE

Firm name	<b>Vectura Consulting Services, LLC</b>		Past Performance Evaluation Category(ies)*	Traffic
Project name	<b>LA 30 Roundabouts at Tanger I-10</b>		Firm responsibility (prime or sub?)	Sub
Project number	H.010960.5		Owner's name	DOTD
Project location	Ascension Parish, LA		Owner's Project Manager	Josh Harrouch
Owner's address, phone, email	PO Box 94245 Baton Rouge, LA 70804-9245, (225) 242-4640, Joshua.Harrouch@LA.GOV			
Services commenced by this firm	04/17	Total consultant contract cost (\$1,000's)	Unknown	
Services completed by this firm	12/20	Cost of consultant services provided by this firm (\$1,000's)	\$153,294	

Vectura designed temporary traffic signal plans that will be implemented during construction of the three roundabouts along LA 30 in Gonzales, LA. The project involves replacing three existing signalized intersections with multilane roundabouts along LA 30 at I-10 Interchange ramps and at the Tanger Boulevard. Vectura also provided Quality Control review of construction plans.

### Temporary Traffic Signal Design

Vectura performed following design tasks to develop temporary traffic signal plans

- Detailed study of sequence of construction plans to determine the optimal traffic signal operation and required traffic signal equipment for each sequence of construction phase
- Reviewed potential access issues for all the impacted driveways / streets along the project area for each sequence of construction phase
- Developed multiple traffic signal timing plans by time of day for each sequence of construction phase to maintain progression along main corridor
- Developed temporary signal plans including pole and span wire layout, signs, striping, power source, signal timings by time of day, vehicle detection, signal head placement, wiring diagram, pole height calculations, clearance calculations, quantities, construction cost estimate
- Coordinated with DOTD Traffic Section and District Traffic Engineer

### Quality Control Review

Vectura provided Quality Control review of signing and striping plans at 30% and 60% plan sets to ensure the roundabouts conformed to the Pavement Markings Details Sheet PM-09 and the Manual on Uniform Traffic Control Devices (MUTCD) details on roundabouts.

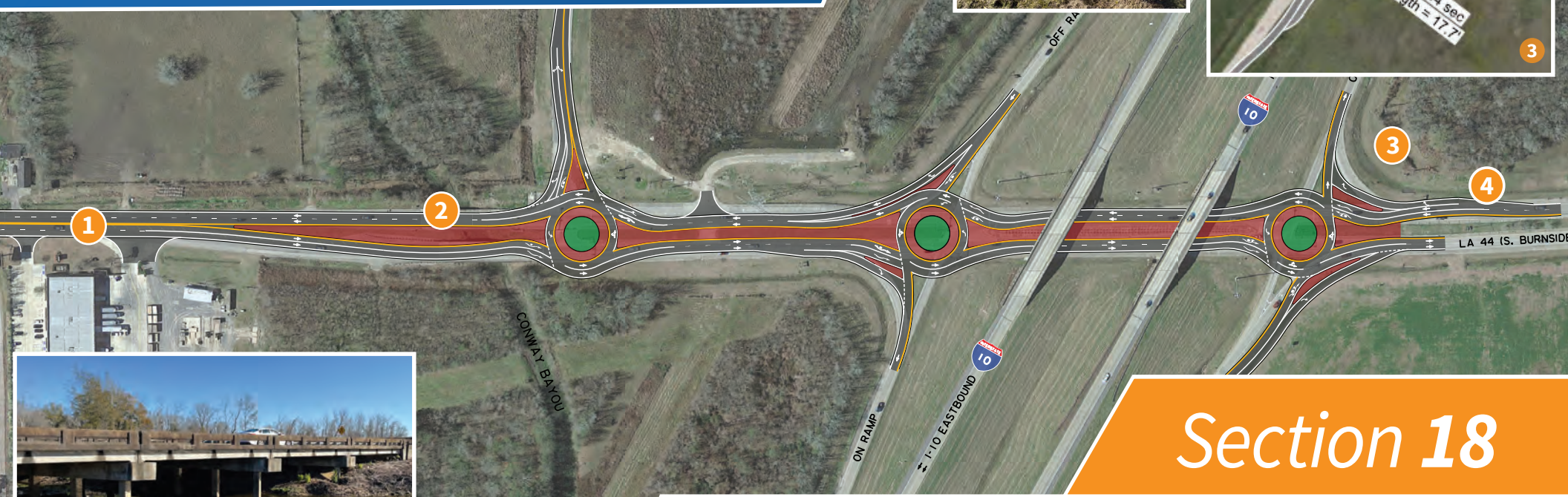
**Firm Members:** Brin Ferlito, Reece Rodrigue, Laurence Lambert, and Bridget Robicheaux



**Geometry is critical for the safe operations of multilane roundabouts. Consequently, Neel-Schaffer (NS) has provided this concept geometry which will be refined and presented to DOTD at the kick-off meeting for their consideration.**

**Key benefits:**

- potential to maintain the existing SB twin bridge (without bridge widening)
- provides high speed reduction for LA 44 (posted speed 55MPH)
- avoids several constraints (pipelines, transmission lines, sewer force main)
- reduces the skew for SB drivers at the I-10WB on ramp
- ease of construction sequencing

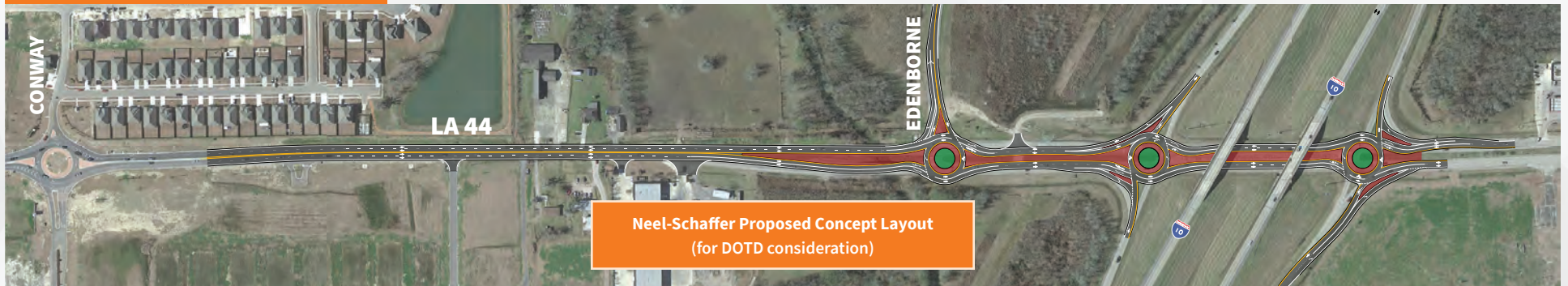


# Section 18



- 1 Four lane pavement width will be provided to match existing four lanes at Conway Village Blvd. roundabout.
- 2 Potential Improvement -There is an existing bridge which crosses Conway Bayou. We have designed the exit radius to meet DOTD and NCHP 1043 requirements while possibly keeping the SB bridge.
- 3 Potential Improvement - NSI geometry reduced degree of skew for slip lane compared to current concept layout.
- 4 Posted speed is 55MPH. NSI provides required deflection for adequate Speed reduction for LA 44's high speed approach, while avoiding the existing roadside ditch.

## 18. APPROACH & METHODOLOGY:



Neel-Schaffer Proposed Concept Layout  
(for DOTD consideration)

### PROJECT BACKGROUND

This project will construct two multilane roundabouts at the I-10/LA 44 interchange ramps and another multilane roundabout at the intersection of LA 44 and Edenborne Parkway. The project will also widen the existing roadway from 2 lanes to 4 lanes from Edenborne to Conway Dr. The widened section will match the existing 4 lane section at the Conway Dr. roundabout. The image above and on the proceeding page is Neel-Schaffer's conceptual geometric design for this project.

This project is a portion of the larger improvements recommended in the Roundabout Justification Report (RJR), dated November 15, 2018. The RJR recommended improvements along LA 44 from the I-10 interchange to LA 22. These improvements will provide multilane roundabouts at intersections throughout the corridor.

**Experience matters: We have worked on 175 roundabout geometry intersections in Louisiana including roundabout interchange design.** The design of roundabout intersections are like no other intersection type. Consequently, DOTD dedicated a section in the road design manual to roundabout design. They also frequently request that designers adhere to the guidelines in NCHRP Report 672, Roundabouts: An Informational Guide, 2nd edition. This 277-page document is dedicated to the best practices associated with the design of roundabouts and we have incorporated its recommendations into many of the roundabout projects we have worked on.

**Project Challenge:** The 30% preliminary plans submittal stage is excluded from the advertised scope of work. The 30% preliminary plans phase is critical for DOTD roundabout projects because the roundabout geometry controls so many design elements. Without this submittal stage, the roadway drainage will be designed based on horizontal and vertical alignments which are subject to change. These type of changes can impact bridge clearance, structure width, drainage inlet spacing, roadway ditch design cross drain lengths and more. **Solution:** We will suggest that this submittal stage be included in the scope of work and utilized for the full approval of the roundabout geometry from traffic, geometrics and road design. This is the process we have used for our DOTD roundabout projects and has resulted in time savings and easier project delivery as DOTD is

involved early on and their preferences can be incorporated into the design without unnecessary rework.

This project will construct three multilane roundabouts: including two at an interchange. The successful completion of this project will require a team that has extensive experience in the design of multilane roundabouts because geometry greatly impacts their safety and operational performance. As mentioned, we have this experience. In addition, we have experience with the design of multilane roundabout interchanges for DOTD.

We will design the LA 44 roundabouts in conformance with both DOTD guidelines and NCHRP Report 672, Roundabouts: An Informational Guide. LA 44 has a posted speed of 55 MPH and is classified as a high-speed roundabout approach roadway. Drivers along high-speed approaches do not typically expect to encounter speed reductions. Drivers who approach the I-10/LA 44 interchange from the north are of particular concern because of the lack of roundabout intersections along that segment of the corridor. High-speed roundabout approach roadways can sometimes require additional advance signage and pavement markings, extended splitter islands and a series of progressively sharper curves (at a larger lateral offset from the existing roadway) to help slow traffic to an appropriate entry speed. We are familiar with DOTD's

preference to provide this type of geometry and have worked with them to address this concern on other projects. We will provide a balanced design which considers all feasible options for providing speed reduction while minimizing impacts to adjacent developed property and utilities. We will communicate with the PM and help lead the collaboration to move the project forward while addressing these concerns via project design workshops and over the shoulder review sessions. These are proven methods which prevent project delays and provides an efficient use of DOTD's review time.

One of our current projects includes two partially on bridge multilane roundabouts for the interchange at I-20 and LA 544. **Our I-20 at LA 544 project is significantly more complex than this proj-**

NSI completed multiple traffic impact studies for various developments along LA 44 which include Conway Plantation, Oak Lake Subdivision, Pelican Crossing Subdivision, Pelican Point Subdivisions and Love's Travel Stop. As part of the Conway Plantation study, a roundabout was analyzed and recommended at the entrance of LA 44 and **Conway Plantation** and Oak Lake Subdivision which was later constructed under a DOTD permit. Our latest study, the Love's Travel Stop, the **interchange at LA 44 at I-10 was evaluated** for existing and future conditions as a roundabout and with interim recommendations prior to the installation of roundabouts. Traffic data for the Roundabout Justification Report (the study which recommended this project) was collected by Neel-Schaffer in 2022. Through our work on these private developments and in support of RJR, Neel-Schaffer, Inc. has extensive knowledge of the LA 44 corridor from I-10 to LA 22.



## 18. APPROACH & METHODOLOGY:

ect because of close roundabout spacing (less than 200 feet between the roundabouts), roundabouts being partially on bridge structure, roundabouts being on a 3% grade longitudinal grade and being constructed with PCCP and along a highly developed corridor with limit right-of-way. This project required that the graphical grades for the roundabouts be designed to accommodate the required roundabout cross slope, 3% longitudinal grade, the ramps, bridges and MSE walls. Similar considerations were required for the sequence of construction plans. The project will be constructed 1st as 3 roundabouts. Then as a 4 roundabout interchange. This project required that the 3 roundabout interchange roadway design (horizontal and vertical alignments) and drainage design be designed for the initial 3 roundabouts and full build 4 roundabout interchange. This project is in 95% Final Plans phase has proven our ability to provide the services which are needed for the completion of this project.

### APPROACH AND METHODOLOGY

**Project Kickoff Meeting:** NSI will attend the kick-off meeting. Communication protocols, project schedule and submittal stages will be discussed and design criteria (to include assumptions, factors, loads, limit states and governing elements for bridge barrier rails, bridge hydraulics, guard rail, bearings, joints, approach slabs and deck drainage) will be presented. **Project Specific:** We have created a conceptual layout (see this sections divider sheet, 2 pages prior to this sheet) and we will provide this to DOTD in dgn and KMZ format to begin the discussion regarding the DOTD preferred roundabout geometry. This is of importance because a Stage 0 was not completed for the project. We know based on past DOTD roundabout projects that the geometry which is provided in traffic studies (although appropriate for a traffic study) requires refinements during preliminary design. Design decisions associated with this geometry must be made early in the project design process to prevent issues that delay the project's advancement. This concept layout provides a more realistic presentation of impacts and provides the geometry in a format which allows DOTD to provide their initial thoughts. It shapes the design approach for the project team in preparation for the 30% preliminary plans.

**Survey Services:** DOTD will provide the topo survey. However, additional data might be required. We will evaluate the topo survey for issues and potential data gaps. We will immediately communicate concerns to the PM and work with the PM to provide solutions that keep the project on schedule. We have already done this with our LA 544 @ I-20 project by reducing our design schedule to allow DOTD time to obtain missing topo survey data. If this project has similar issues, we have the ability to obtain this data, if desired by DOTD. Crescent Engineering and Mapping has already provided this service to DOTD for other projects which require topo survey and SUE. They are available as needed to allow for seamless project execution.

**Site Visit & Study of Existing Data:** Our team has already conducted an initial site visit to determine the existing site conditions, obtain utility data, and determine potential constraints. **We recognize the constraints which exist within the project limits and have highlighted them in the existing constraints map provided on the divider for the next section and the divider for sections 12-15.** Our proposed design (shown on this section divider sheet) considers these constraints and avoids utilities, minimizes the impacts to the existing bridge and utilizes a geometry which provides the safety and operational benefits associated with well-designed multilane roundabouts.

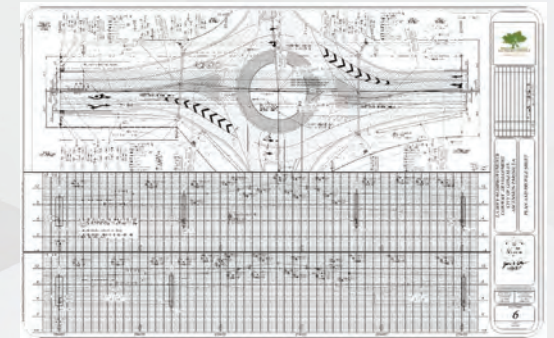
**Project Specific:** Pipeline & Transmission Corridor: Several major utilities exist within a corridor which crosses LA 44 south of I-10. These include nine (9) underground industry pipelines carrying a variety of products including promix or High Volatile Liquids (HVL), Propylene, propane, Natu-

ral Gas and Natural Gas Liquids (NGL). The sizes of these lines range from 6" to 20" in diameter, none appear to be in casings, and several AGM's are located within or near the existing R/W. When working around pipelines which are not encased, it is critical that all clearances and separations are maintained between the pipeline and other crossings such as drainage and the pavement section. **The Neel-Schaffer design team understands pipeline clearance constraints and includes several key staff who are very familiar with designing and working around pipelines.** We will assist DOTD in coordinating with the pipeline operators/owners early in design to determine these clearance requirements, design drainage and other project features not to interfere with these lines and ultimately, save relocation costs and schedule delays. We did this already for our Mandeville Bypass project. The electrical transmission line tower foundation on the west side of LA 44 is currently shielded by guardrail and is within the clear zone/horizontal offset. Our team's preliminary layout suggests that this can be improved and possibly eliminate the guardrail, thus mitigating maintenance costs.



**Project Specific:** Municipal Utilities: Several utilities run parallel to LA 44. The City of Gonzales' main 24" sewer force main exists on the west side of LA 44 along with overhead electric distribution lines, underground telephone and a gas main which crosses LA 44 north of Lakeheaven Dr. (near the end of project). Elimination of conflicts with these utilities is possible with proper coordination during design. Along the east side of LA 44, Ascension Water Co's main water line exists approx. 12' off the existing pavement edge and will likely be in direct conflict with trunkline drainage for the widening between Lakeheaven Dr. and the existing 4-lane section. Other utility conflicts are anticipated with several overhead utilities including electrical, telephone, and a portion of the gas main. Coordination of conflicts by our design team and DOTD will help prevent unnecessary impacts to the project schedule.

**Project Specific:** We have the existing available data such as as-built plans, existing studies, traffic data, LiDAR data and prior design plans. We will utilize the roadway vertical alignments shown in these plans to provide the initial grade for our vertical alignment and provide for smooth interface between the two projects. NSI has already created a conceptual layout for this project. We will utilize this to obtain initial input from DOTD. Once we have the topo survey and hydraulic data from DOTD. Our team will utilize this to determine the bridge Type, Size and Location (TS&L). We also know based on the plans that portions of the Conway roundabout project will drain to this LA 44 project. We will design our drainage to accept these flows.



## 18. APPROACH & METHODOLOGY:

**Preliminary Plans:** Our *roadway engineering design* will be completed in conformance with the latest requirements of the *LADOTD Roadway Design Procedures and Details*, the *LADOTD Engineering Directives and Standards (EDSMs)*, the *American Association of State Highway and Transportation Officials (AASHTO) Policy on Geometric Design of Highways and Streets*, and *AASHTO Roadside Design Guidelines*. We will provide plans created utilizing CADConform and in compliance with the DOTD CAD standards. Our roadway design will be completed with the use of Power InRoads V8i (SS2) and our construction cost estimates will utilize current DOTD standard bid items and the DOTD's Bid history estimate tool, with consideration for the project location and magnitude of items. This is important due to the unstable, escalating construction costs.

Our *bridge design* will follow the *AASHTO LRFD Bridge Design Specifications*, *LADOTD Bridge Design and Evaluation Manual*, *LADOTD Bridge Design Technical Memoranda* and other pertinent design guidance. The Neel-Schaffer design team will ensure that both roundabout designers and bridge design teams communicate early and often in the design process for Edenborne Pkwy as the roundabout geometry will directly affect the ability of the existing bridges to accommodate the project, especially the vertical geometry. This along with the bridge's condition, hydraulic capacity and scour will be analyzed during our team's preparation of a comprehensive bridge evaluation report.

**Project Specific:** Where Conway Bayou crosses LA 44, there is an existing twin slab span bridge (125' x 40' clear width) which was built in 1978, with post/beam rails, founded on concrete piles. The bridges appear to be in structurally good condition with past inspection reports showing condition ratings of 7 for NBI 58-60 (deck, super and substructure).

A determination will be made by our team to recommend bridge replacement or widening. Roundabout vertical alignments slope upward towards the roundabout to assist with visibility and provide the required cross slopes in the circulatory roadway. This vertical alignment varies greatly from the existing bridge. The Edenborne Pkwy roundabout would have to shift northward substantially in order to use the existing bridge's vertical geometry. Our team will review all available information and determine the best balance for the project between bridge widening (which requires additional R/W takings and adjustments of Edenborne Pkwy) versus bridge replacement. If bridge replacement is the recommended solution, we will minimize the deck area of the new bridge(s) and consider replacing the twin bridge with a single structure. This will result in savings to DOTD and assist with construction phasing.

It is critical that this roadway remain open during construction. If replaced, it is likely that a new, single structure would be built using phased construction and partial or complete, phased demolition of the existing separate bridges in order to facilitate the Traffic Management Plan (TMP) and construction phasing on this critical route. NSI has experience completing work along roadways with phasing designed to keep roads open. We did this for our LA 1088 roundabout project., our Youngsville roundabouts and with portions of the phasing for LA 544 @ I-20. Crescent's staff will be heavily involved in the development of the Edenborne roundabout geometry and our team of professionals have dual experience (roadway and bridge design), which allows them to understand the impacts that each design decision has on both. They will make recommendations which consider the best interest of the project as a whole. *Having the roundabout and bridge designers working closely together, Neel-Schaffer's team is poised to deliver this critical portion of the project seamlessly to DOTD.*

The bridge design criteria and early geometric layout will be determined, the Type, Size and Location (TS&L) submittal of the bridge structure, characterized in report format including any structure alternatives which are feasible and a recommended TS&L. The bridge design team will coordinate with the geotechnical engineers early to have borings taken and logs completed, submitted, and approved prior to the completion of preliminary bridge plans.

Our *roadway drainage design* will be completed in conformance with the DOTD Hydraulics Manual. We will utilize LADOTD HydroWIN software for open channel flow (Hydro1140), inlet spacing (Hydro6000), analysis of culverts (Hydro1120) and storm sewer system design (Hydro6020). DOTD will provide the bridge hydraulics. However, we have staff who can complete this task if desired utilizing HEC-RAS to model the water surface profiles and calculate the bridge scour depth. We will complete a cursory review of the HEC-RAS reports provided from DOTD to confirm conformance with our proposed bridge geometry and existing conditions. This will provide a collaborative approach were we assist as warranted for project execution success. For H.011235.5 I-49 @ Verot, NSI designed over 8 miles of roadside drainage systems which consisted of 4 lines along the 2+ mile interstate and frontage roads with capacity for the 100 year storm to meet railroad requirements.

**Environmental Clearances and Permits:** The DOTD PM has indicated that DOTD will obtain the environmental clearances and obtain any required permits. NSI will provide all required supporting documents (including but not limited to) permit drawings, such as 404 permits, which typically are letter size and should be produced separately from design plans due to the difference in scale. NSI has completed public meetings and permitting for DOTD projects and is prepared to assist DOTD in either a supporting role or as the lead. Our staff have taken the NHI Course NEPA and the Transportation Decision-Making Process and have completed DOTD NEPA EA's and EIS's. We completed countless environmental, permitting and public/stakeholder tasks recently under our DOTD US 90 Pearl River Bridges EA.

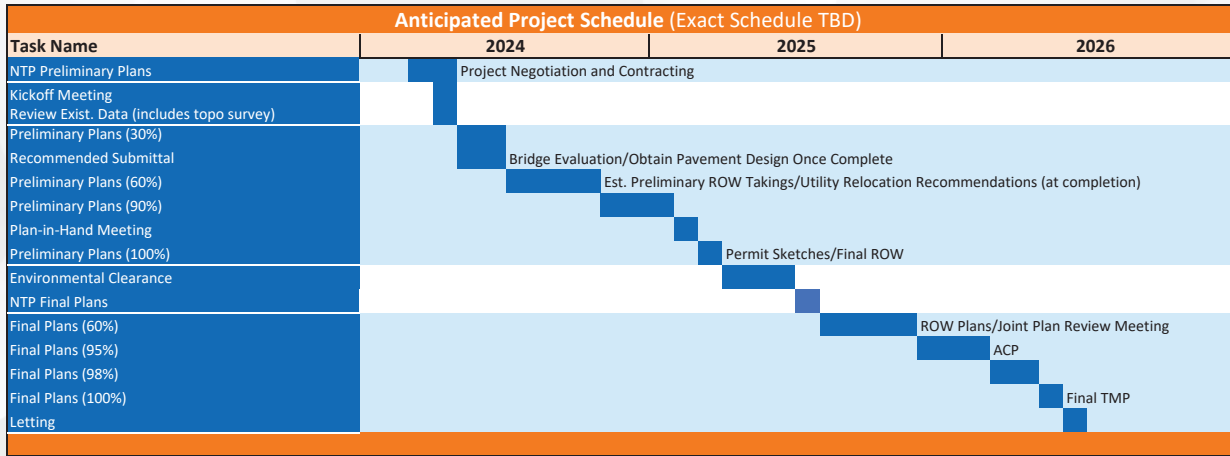
**Project Specific:** Our traffic team has worked on traffic analysis for this project through multiple traffic impact studies for various developments along LA 44 and in support of the RJR, which recommended the corridor improvements along the corridor.

A temporary signal will be required at Edenborne Parkway, the traffic signal design will be completed in accordance with DOTD's Traffic Signal Manual V3 (7-1-2020), standard specifications and standard details. The traffic signal plans will use DOTD's Traffic Signal Inventory Construction Plan V3.2 form for developing the plans.

The **30% preliminary submittal** is not currently included in the project scope. However, we will suggest that DOTD considers adding this critical stage to prevent rework and to allow the project to advance efficiently. We will include the title sheet, typical sections and roadway plan and profile sheets with existing topography shown. The bridge evaluation will be completed at this time. In addition to the standard 30% preliminary plan sheets, we will provide geometric details (which is our unique approach) to allow for a full review of geometry prior to the start of drainage design. This was the process we used in our LA 101 at US 190 roundabout project for DOTD which will allow the drainage and other elements to proceed only after the geometry is fully approved.

During this stage and after the TS&L comments have been addressed, the General Plan and Elevation (GP&E) and bridge typical sections begin to be developed as well as the bridge index, general notes and Summary of Estimated Quantities will be under development.

## 18. APPROACH & METHODOLOGY:



**60% Preliminary Plans:** Our 60% preliminary plan set will include all the sheets previously submitted but in more detail. In addition, the existing drainage map, proposed drainage map, drainage plan and profiles, geometric details, cross sections, preliminary design report, construction notes and details, superlevation diagrams, foundation layouts, construction phasing and traffic control details, and the drainage report will be submitted at the 60% preliminary plan milestone. This phase typically begins the utility relocation recommendation phase, establishment of preliminary right-of-way takings. We will refine the geometry submitted during the 30% Preliminary Plan submittal to address comments and model the corridor utilizing Power InRoads (SS2), the pavement section and the topo dtm file. We will create InRoads templates and check for the required construction and hydraulic clearances. The Draft TMP will be completed at this time and in accordance with DOTD EDSM No.VI.1.1.8 and FHWA's guidance manual Developing and Implementing Transportation Management Plans for Work Zones. The drainage design and report will be completed during this phase. Our drainage design will comply with the DOTD Hydraulics Manual and will utilize DOTD's HYDRWIN software. The roadway drainage system will be designed utilizing the rational method for a 10-year design storm. Property maps will start once 60% preliminary plans are completed.

**90% Preliminary Plans and 95% Preliminary Plans/Plan-In-Hand (PIH):** The Plan submittal will include all of the sheets and documents previously submitted but in more detail. This submittal will also include the summary of estimated quantities sheets (pay items only) and the suggested sequence of construction sheets. All bridge plan sheets continue to be developed at the 90% Preliminary Plan stage with the addition of the pile loads if a standard plan bridge is being utilized. If the bridge is non-standard, pile load development will begin in Final Plans. The comments from the 60% Preliminary Plans will be addressed, preliminary right-of-way taking lines will be completed. The Preliminary QA/QC checklist and Plan-In-Hand Checklist will be completed during this phase. We will attend and summarize comments of the PIH meeting.

**100% Preliminary Plans:** This plan set will address any comments from the PIH. Preliminary cost estimate, permit sketches and final right-of-way is provided to Location and Survey during this phase. We will provide the Final Design Report with this submittal. Should revisions to one or more

design criteria be required after this phase, we will submit a Revised Design Report with a brief description of the revision.

**Final Plans:** Once preliminary plans are approved by DOTD, an environmental decision is received, a fee for the additional service is determined and a notice-to-proceed with final plans has been issued, we will begin preparing the 30% and 60% Final Plans.

**60% Final Plans:** We will submit updates of the deliverables included in the prior plans. Right-of-way maps will be prepared so that the joint plan review meeting can be held. If applicable, superelevation diagrams will be reviewed again against final bridge geometry. Non-standard specifications (if required) will be provided. Final Bridge Plans will include the development of plans and details for the substructure and superstructure including bent details, span details, approach slabs, pile loads & tables, joint and bearing details, bridge barrier rails and guardrail. As – Designed Bridge Rating Reports will also be provided. The Final TMP will be submitted before the 95% Final Plans, with updates to address DOTD comments and changes which may have been made to the sequence of construction plans since the Draft TMP was submitted.

**95% Final Plans:** We will revise the preliminary cost estimate, complete the constructability review form and the Final Plans QA/QC Form during this phase. DOTD will review the Advance Check Prints (ACP).

**98% Final Plans:** We will address the ACP comments and complete the final cost estimate, provide the SWPPP form, NOI form, and provide the DOTD Contract Time Worksheet. During this phase, the Plan Quality Unit will review and once approved, we will produce the 100% Final Plan Set for the Chief Engineer's Signature. We will also provide the Final Stamped and Signed copy of the Design Report.

**100% Final Plans:** We will submit 100% signed Final Plans (Full Size Plan Set with Mylar Title Sheet) along with an electronic submittal. During this phase, the plans are transmitted to General Files.

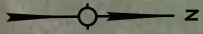
**Construction Support:** We understand that the construction services will be provided by others, but our engineering support during construction (if required) will provide review of shop drawings and respond to RFI's.

**Past Performance on Similar DOTD Projects:** Our most recent DOTD road design rating for a project was a 4.6 out of 5.0, which reflects our understanding of DOTD's policies and procedures. The graphic that follows shows a couple of statements from our recent performance review for preliminary plans for a similar project.

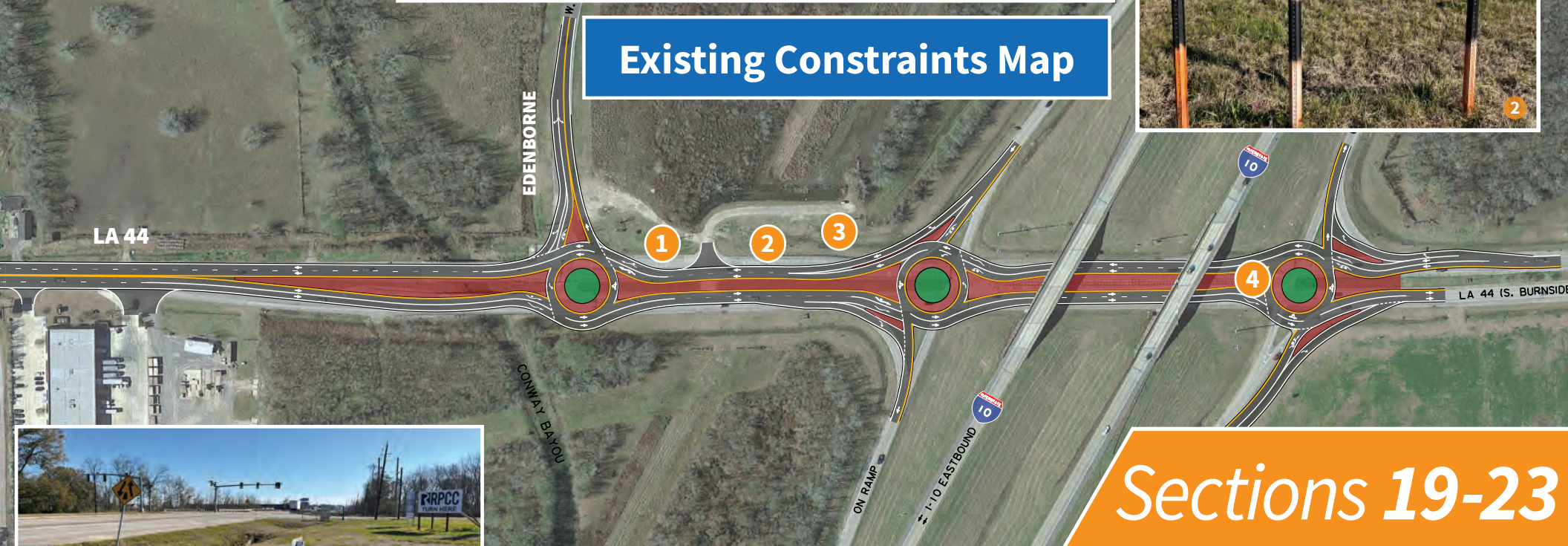
### DOTD Project Manager performance review Quotes

NSI "showed good knowledge of DOTD policies and manuals. The consultant responded to all comments received. Their plans were well thought through, clear, and accurate. The consultant displayed good judgment when resolving design issues throughout the preliminary plan development and acted promptly to resolve issues as that arose."

NSI "effectively and proactively controlled the Contract. When additional scope was added to the contract, the consultant coordinated effectively with the Department's project manager to identify critical path tasks. The consultant completed these tasks in a timeframe which allowed the scheduled letting date to remain unaffected even with the increased scope."



## Existing Constraints Map




## Sections 19-23

- 1 The City of Gonzales' 24" sewer line which runs parallel to the roadway our design will not conflict.
- 2 A pipeline and transmission corridor crosses the roadway, including nine underground pipelines. Our design will not conflict with either.
- 3 Double barrel pipe crossing avoided. No extension required.
- 4 NSI provides geometry free of conflicts with existing I-10 bridge supports.





19. WORKLOAD:

Firm(s)	Past Performance Evaluation Discipline(s)*	Contract Number & State Project Number	Project Name	Remaining Unpaid Balance**
 <p>Neel-Schaffer, Inc.</p>	Planning	SPN 736-99-1548	Travel Demand Model Support Services Statewide (PRIME)	\$55,425
	Road	SPN 4400005673	I-49 South at Verot School Road, Lafayette Parish, (SUB)	\$20,194
	Traffic	4400010428 SA 4, H.004774; H.007300.6	Kansas Lane: Garrett Road Connector and I-20 Improvements (SUB)	\$1,400
	ITS	4400010428 EWL 3, H.004774.5; H.007300	Kansas Lane: Garrett Road Connector and I-20 Improvements (SUB)	\$805
	Traffic	4400010428 SA 5, H.004774; H.007300.6	Kansas Lane: Garrett Road Connector and I-20 Improvements (SUB)	\$3,810
	Planning	4400015733, H.972374.1	Local Public Agency Documented Planning Process, Statewide	\$425,245
	Road	4400017293, H.010616	I-20: LA 544 Overpass Replacement	\$26,300
	ITS	4400016364, H.013256.6	I-10 ITS Scott to Lake Charles Technical Support Services During Construction	\$8,917
	ITS	4400016364, H.011504.5	Alexandria ITS Phase 2	\$54,897
	ITS	4400016364, H.015136.1	Northshore Regional ITS Architecture Update	\$35,499
	Traffic	4400017438, H.013284	MRB South GBR: LA 1 to LA 30 Connector, Ascension, EBR, Iberville & WBR	\$86,734
	Traffic	4400018271, H.014746.1	LA 383 Corridor Study	\$7,224
	Planning	4400018271, H.014746.1	LA 383 Corridor Study	\$65,245
	Planning	440023689, H.015148.5	District 03 Safety Investment Plan	\$131,385
	Planning	4400021094	Update Statewide Transportation Plan and Travel Demand Model	\$157,178
	Planning	4400023689, H.015227.5	US 61 at Victoria Dr. Ped Crossing	\$50,891
	Traffic	4400026458, H.014710.5	Cedar Street Ext. to LA 22 and Roundabout	\$169,073
	Planning	4400018271, H.012042	LA 384 (Big Lake Rd to McNeese Street)	\$419,502
	Road	4400024927, H.015226.5	US 90: Roundabout at LA 101	\$290,000



19. WORKLOAD:

Firm(s)	Past Performance Evaluation Discipline(s)*	Contract Number & State Project Number	Project Name	Remaining Unpaid Balance**
 <p><b>VECTURA Consulting Services, LLC</b></p>	Traffic	4400017293, H.010616	I-20: LA 544 Overpass Replacement	\$74,429
	Traffic	4400005484, H.005168.2	New Orleans Rail Gateway Avondale EA	\$92,995
	CE&/OV	4400020018, H.007160	EBR Computerized Traffic Signal, Ph VB	\$33,910
	Traffic	H.004791	Belle Chasse Bridge & Tunnel Replacement PPP	\$14,740
	Traffic	4400021519, H.012030.5	KCS RR Overpasses HBI	\$572
	Traffic	4400023075, H.013522	S. Lewis Street Widening	\$7,499
	ITS	4400016364, H.015136.4	Northshore Regional ITS Architecture Update	\$11,421
	ITS	4400017922, H.012845.1	C/AV Team and Working Group Support	\$13,949
	ITS	44000020058, H.011507.1	Monroe Phase 3 SEA	\$29,217
	Traffic	4400018271, H.014746.5	LA 383 Stage 0 Corridor Study	\$22,388
	Traffic	4400018271, H.011242.1	LA 384 (Big Lake Rd to McNeese St)	\$31,827
 <p><b>Crescent Engineering &amp; Mapping, LLC</b></p>	Road	4424585, H.014980	Chinaberry Drive Over Unnamed Coulee	\$0
	Bridge	4424585, H.014980	Chinaberry Drive Over Unnamed Coulee	\$0
	Road	4425035, H.014984	Libuse Cutoff Road Over Flagon Bayou	\$0
	Bridge	4425035, H.014984	Libuse Cutoff Road Over Flagon Bayou	\$0
	Road	4424591, H.014992	McHugh Road Over Brushy Bayou	\$2,323
	Bridge	4424591, H.014992	McHugh Road Over Brushy Bayou	\$995
	Road	4424592, H.014993	Lemon Road Over Drainage Bayou	\$26,804
	Bridge	4424592, H.014993	Lemon Road Over Drainage Bayou	\$17,870
	Road	4425054, H.015025	McLin Road Over Darling Creek	\$15,719
	Bridge	4425054, H.015025	McLin Road Over Darling Creek	\$23,578
	Road	4427180	Transportation Alternatives Program IDIQ (No Task Orders)	\$0



**SEE ATTACHED**



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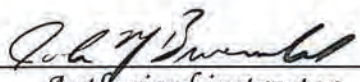
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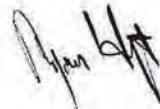
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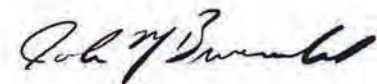
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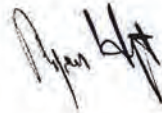
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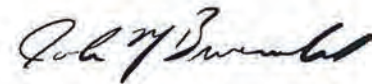
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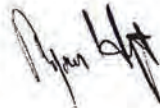
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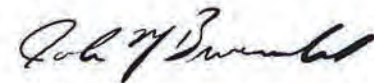
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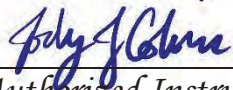
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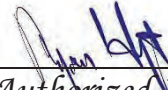
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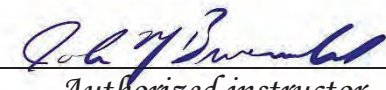
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*Authorized Instructor*

  
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*Authorized Instructor*

  
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*Authorized instructor*



# *Certificate of Completion*

presented to

*Laurence Lambert*

for completing the

## **Traffic Engineering Analysis Process & Report Module 1**

*Date:* July 16, 2018  
*Location:* Baton Rouge, Louisiana

*Professional Development  
Hours (PDHs) Awarded:* 2

  
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*Authorized Instructor*

  
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*Authorized Instructor*

  
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*Authorized instructor*



# *Certificate of Completion*

presented to

*Laurence Lambert*

for completing the

## **Traffic Engineering Analysis Process & Report Module 2**

*Date:* July 23, 2018  
*Location:* Baton Rouge, Louisiana

*Professional Development  
Hours (PDHs) Awarded:* 3

  
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*Authorized Instructor*

  
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*Authorized Instructor*

  
\_\_\_\_\_  
*Authorized instructor*



# *Certificate of Completion*

presented to

*Laurence Lambert*

for completing the

## **Traffic Engineering Analysis Process & Report Module 3**

*Date:* October 15, 2018  
*Location:* Baton Rouge, Louisiana

*Professional Development  
Hours (PDHs) Awarded:* 3

  
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*Authorized Instructor*

  
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*Authorized Instructor*

  
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*Authorized instructor*



# *Certificate of Completion*

presented to

*Reece Rodrigue*

for completing the

## **Traffic Engineering Analysis Process & Report Module 1**

*Date:* November 5, 2018  
*Location:* Baton Rouge, Louisiana

*Professional Development  
Hours (PDHs) Awarded:* 2

  
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*Authorized Instructor*

  
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*Authorized Instructor*

  
\_\_\_\_\_  
*Authorized instructor*





# *Certificate of Completion*

presented to

*Reece Rodrigue*

for completing the

## **Traffic Engineering Analysis Process & Report Module 2**

*Date:* November 26, 2018  
*Location:* Baton Rouge, Louisiana

*Professional Development  
Hours (PDHs) Awarded:* 3.5

  
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*Authorized Instructor*

  
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*Authorized Instructor*

  
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*Authorized instructor*



# *Certificate of Completion*

presented to

*Reece Rodrigue*

for completing the

## **Traffic Engineering Analysis Process & Report Module 3**

*Date:* December 3, 2018  
*Location:* Baton Rouge, Louisiana

*Professional Development  
Hours (PDHs) Awarded:* 3

  
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*Authorized Instructor*

  
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*Authorized Instructor*

  
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*Authorized instructor*



# *Certificate of Completion*

presented to

*Kristen Gahagan*

for completing the

## **Traffic Engineering Analysis Process & Report Module 1**

*Date:* July 30, 2018  
*Location:* Baton Rouge, Louisiana

*Professional Development  
Hours (PDHs) Awarded:* 2.5

  
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*Authorized Instructor*

  
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*Authorized Instructor*

  
\_\_\_\_\_  
*Authorized instructor*



# *Certificate of Completion*

presented to

*Kristen Gahagan*

for completing the

## **Traffic Engineering Analysis Process & Report Module 2**

*Date:* August 6, 2018  
*Location:* Baton Rouge, Louisiana

*Professional Development  
Hours (PDHs) Awarded:* 3

  
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*Authorized Instructor*

  
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*Authorized Instructor*

  
\_\_\_\_\_  
*Authorized instructor*



# *Certificate of Completion*

presented to

*Kristen Gahagan*

for completing the

## **Traffic Engineering Analysis Process & Report Module 3**

*Date:* October 29, 2018  
*Location:* Baton Rouge, Louisiana

*Professional Development  
Hours (PDHs) Awarded:* 3

  
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*Authorized Instructor*

  
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*Authorized Instructor*

  
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*Authorized instructor*



# *Certificate of Completion*

presented to

*Bridget Robicheaux*

for completing the

## **Traffic Engineering Analysis Process & Report Module 1**

*Date:* July 30, 2018  
*Location:* Baton Rouge, Louisiana

*Professional Development  
Hours (PDHs) Awarded:* 2.5

  
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*Authorized Instructor*

  
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*Authorized Instructor*

  
\_\_\_\_\_  
*Authorized instructor*



# *Certificate of Completion*

presented to

*Bridget Robicheaux*

for completing the

## **Traffic Engineering Analysis Process & Report Module 2**

*Date:* August 6, 2018  
*Location:* Baton Rouge, Louisiana

*Professional Development  
Hours (PDHs) Awarded:* 3

  
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*Authorized Instructor*

  
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*Authorized Instructor*

  
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*Authorized instructor*



# *Certificate of Completion*

presented to

*Bridget Robicheaux*

for completing the

## **Traffic Engineering Analysis Process & Report Module 3**

*Date:* October 18, 2018  
*Location:* Baton Rouge, Louisiana

*Professional Development  
Hours (PDHs) Awarded:* 3

  
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*Authorized Instructor*

  
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*Authorized Instructor*

  
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*Authorized instructor*





**SEE ATTACHED**





in association with



**LADOTD CONTRACT No. 44-28432**

**S.P. No. H.015569.5**

**F.A.P. No. H015569**

**LA 44: I-10 Roundabouts**

**Route: LA 44 & I-10**

**Ascension Parish**

**BRIDGE DESIGN QC/QA PLAN**

**February, 2024**

## **Table of Contents**

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Appendix C	LADOTD QC/QA Submittal Certifications

## **Introduction**

Crescent Engineering & Mapping, LLC (Crescent) understands that proper QC/QA is vital to the success of any bridge project. When a clearly outlined, known and repeatable process is followed by a team of bridge designers and technicians, design errors are eliminated, and plan accuracy is greatly enhanced. These QA/QC procedures and guidelines have been developed to ensure that bridge design team develops and accurately confirms that the project's design and resulting drawings meet LADOTD and AASHTO criteria and are in accordance with the requirements of the Contract. LADOTD's Bridge Design and Evaluation Manual requires that the Department's Policy for Quality Control and Quality Assurance is followed for all LADOTD projects. This QC/QA plan establishes the basis for Crescent to continue to be *Committed to Excellence and Focused on Delivery*.

This QC/QA plan has been developed consistent with LADOTD and Crescent policies specially for:

### **LADOTD CONTRACT No. 44-28432**

**S.P. No. H.015569.5**

**F.A.P. No. H015569**

**LA 44: I-10 Roundabouts**

**Route: LA 44 & I-10**

**Ascension Parish**

Crescent will manage design and design quality control/quality assurance program throughout the development of bridge design and production of bridge plans and specifications for this project. Our designated QC/QA manager for this project will be responsible for overseeing the overall quality program, performing independent Quality Assurance reviews as well as the preparation and implementation of the QC/QA plan. Crescent fully understands that it is the LADOTD's expectation that it's consulting engineers take full responsibility for their design and bridge plan submittals throughout the design process. We further understand that review and comments by LADOTD does not relieve Crescent of this responsibility.

This QA/QC plan has been prepared in accordance with the requirements set forth in "Guidance on QC/QA in Bridge Design in Response to NTSB Recommendation (H-08-17)," FHWA, AASHTO, August 2011. Additionally, requirements of BDTM.37 and "Policy on Quality Control and Quality Assurance," Louisiana Department of Transportation and Development, Bridge Design Section, October 2012, as amended and the requirements of the LADOTD's Bridge Design and Evaluation Manual will be followed throughout the project.

Crescent has committed to this process and has dedicated resources to deliver bridge design projects for LADOTD. We strive for continuous improvement to our processes to the benefit of our team members, the clients we serve and the public as a whole. We are committed to partnering with our clients by properly planning our work efforts to achieve a repeatable, consistent and a seamless delivery of our bridge projects. Crescent is committed to continuing education, offering our employees ample opportunities to remain on the leading edge of technology, bridge modeling and design methodology improvements, changes and innovation.

## **Definitions**

**Quality Control (QC):** This process involves the procedures of checking the accuracy of the calculations and consistency of the drawings, detecting and correction design omission and errors before the design plans are finalized, and verifying that bridge components are adequately designed for the requirements of the AASHTO LRFD Bridge Design Specifications, LADOTD Bridge Design and Evaluation Manual and other technical memoranda.

**Quality Assurance (QA):** This process involves the procedures of reviewing the work to ensure the quality control procedures and processes are in place and effective in preventing mistakes, and consistency in the development of bridge design plans.

**Designer:** An individual directly responsible for the development of design calculations, drawings, specifications, and contract documents and, potentially, in the review of shop drawings related to a specific bridge design with a level of technical skills and experience commensurate with the complexity of the subject structure or structures being designed. A designer shall be either a Professional Engineer licensed in the State of Louisiana or certified as an Engineer Intern under the direct supervision of a licensed Professional Engineer. The designer's experience should be commensurate with the complexity of the structure being designed.

**Design Checker:** An individual responsible for performing full technical review of the structural calculations, drawings, specifications and contract documents. A Design Checker shall be a Professional Engineer licensed in the State of Louisiana or certified as an Engineer Intern under the direct supervision of a licensed Professional Engineer. If the Designer is an Engineer Intern, the Design Checker should be a Professional Engineer. The checker's experience should be commensurate with the complexity of the structure being designed/checked.

**Detailer:** An individual responsible for the necessary Microstation/CAD duties of producing bridge design plans which reflect the designer's intentions and calculations. The Detailer shall be competent in operating Microstation/CAD software, able to read design sketches and drawings and shall communicate with the designer throughout the development of bridge design plans.

**Reviewer:** An individual responsible for performing QA procedures for assuring that QA/QC procedures have been performed.

**Engineer of Record:** A Licensed Professional Engineer responsible for all bridge structural aspects of the design of the structure including the design of all the bridge's systems and components. This individual is responsible for sealing and signing the final project plans.

## **QC/QA Roles and Responsibilities**

The following tables outline the team members who have been selected to perform the individual QC/QA assignments for this project's bridge elements. These assignments are subject to change with comparable personnel depending upon contract execution and timeline.

Bridge Structural Design*		Construction Support & Shop Drawings	
Designer:	Megan M. Miller, P.E.	Drawing Review:	Dennis M. Hymel, PE.
Design Checker:	Dennis M. Hymel, Jr., P.E.	Review Checker:	Paul I. Olivier, P.E.
Detailer:	Luke Bourg	QA Review:	James P. Ledet, P.E.
Detail Checker:	Abbey F. Falcon, P.E.		
QA Review:	James P. Ledet, P.E. David Hebert, P.E.		

Hydraulics Design & Scour Analysis		Bridge Geometric Design	
Designer:	Abbey F. Falcon, P.E.	Designer:	Megan M. Miller, P.E.
Design Checker:	Paul I. Olivier, P.E.	Design Checker:	Abbey F. Falcon, P.E. Dishili Young, P.E.
Detailer:	Luke Bourg	Detailer:	Luke Bourg
Detail Checker:	Dishili Young, P.E.	Detail Checker:	Paul I. Olivier, P.E.
QA Review:	James P. Ledet, P.E.	QA Review:	James P. Ledet, P.E.

\*For Non-Standard Structure Elements

Bridge Engineer of Record: Dennis M. Hymel, Jr., P.E.  
QC/QA Manager: James P. Ledet, P.E.

## QC/QA Procedures

### 1. CALCULATIONS

#### *INTRODUCTION*

Calculations are to be done on calculation tablet sheets for each design organization. Calculation tablets shall bear the name and address of the firm preparing the design. Calculations shall include sketches which are legible to detailers which may augment or clarify the calculations, list all assumptions, references, units, and conclusions. The calculations shall reference the specific component for which they apply and shall cite specific AASHTO codes being used for specific calculations being made.

#### *RESPONSIBILITIES*

**Engineer of Record** – Ensures that staff assigned to the project are capable of performing the analysis and calculations and that their experience is commensurate with the complexity of the structure or component being tasked. Responsible for direct oversight and supervision of the design of the bridge components and structure. Assembles or assigns personnel to assemble and maintain original calculations and calculation checks for the project.

**Designers** – Prepare all calculations in a neat and logical manner which is conducive to checking. Provide the calculations to the Checker in a timely fashion with time to properly and adequately check calculations prior to detailing.

**Checkers** – Thoroughly check the design calculations starting with assumptions, mandated parameters, references, given values and formulas, AASHTO codes, omissions, and correctness of arithmetic. The Checker is responsible for asking questions of the Designer in areas that are not clear or seeking technical advice if warranted for a particular element of the calculation.

**QC/QA Manager** – Performs independent review of the checked calculations and random audits to ensure that QC procedures are being followed for checking of calculations.

### ***PROCEDURES***

1. Identify each sheet of calculations with designer's initials, date, project name, and sheet number. Indicate portion of project being designed in the upper right corner of each sheet below the title block. For example: Bent 5 Design, Intermediate Bent Design, Span 3 Design, etc. A component of a project shall be checked promptly upon completion of calculations. Normally, design and quantity calculations are not combined.
2. The Designer shall make a copy (checking copy) of the calculation set and give to the checker. The originals shall then be placed in a designated binder or folder, in a convenient location, which can be accessed by the entire design team.
3. The checker shall fill in the checking copy headings with initials and date in red. All errors and disagreements shall be marked in red. Yellow shall be used to indicate information that has been checked is correct.
4. The checker shall promptly return the checking copy to the Designer for review. If the Designer agrees with the checker's markup then the Designer shall put a green check on red marks. When the Designer and Checker disagree, then the Engineer of Record shall resolve the dispute.
5. The Designer shall change the originals and return the originals and the checking copy to the checker for the checker's initials and date to be placed on the original.
6. The originals shall immediately be placed back into the calculation folder or binder. The checking copy shall be kept as required.

## 2. DRAWINGS

### *INTRODUCTION*

Timely checking of drawings is important for efficient performance of plan producing and to minimize errors and prevent compounded error. A drawing used as a base file by several disciplines (road, bridge, hydraulics) should be checked and corrected before further additions are made; this will eliminate the need to check and correct the same items on subsequent drawings.

### *RESPONSIBILITIES*

The **Engineer of Record**, with the help of the QC/QA Manager, will ensure that this procedure is implemented on all project drawings and that the check prints are assembled and available for audit for each submittal milestone during project delivery.

The **Designer** of the structure or the bridge element on the drawing has the primary responsibility for accuracy and adequacy. It is not intended that the Designer rely upon the checking system to complete the drawing.

The Designer of each drawing or set of drawings is responsible for making the Check Print, stamping and dating it, following that Check Print through the process, and obtaining the required sign-offs.

**Checkers** are responsible for checking the drawings, independent of the Designer, for accuracy and adequacy of all the information shown, including geometrics, reinforcing and quantities.

**QA/QC Manager** performs particular QA reviews and audits to ensure that procedures are being followed in regard to the checking of drawings.

### *PROCEDURES*

1. As each drawing individually is completed and deemed ready for checking, the Designer signs or initials the title block of drawings, makes a Check Print copy, and affixes, numbers, and dates the Check Print stamp on the print of each drawing. This is to be done on each drawing print separately, not on the set of prints as a whole, even if the same information is put on the check print stamp.
2. The Checker checks the Check Print of the drawing for technical adequacy and conformance to any applicable standards and format, and performs specific accuracy checks required for that type of drawing. Checking activity is recorded directly on the Check Print. The Checker is responsible for ascertaining that the drawing is consistent with the corresponding calculations, and signing off that those calculations have been



properly checked. In order to document the checking process, the Checker highlights in yellow on the Check Print each part checked that is found to be correct and marks in red on the Check Print corrections, additions, or deletions.

*Use of Colors*

<b>Instrument</b>	<b>Use For</b>	<b>User</b>
Yellow Highlight	Checker confirmation	Checker
Red Pen	Correction to be made	Checker
Blue Pen	Discussion Item, Design Issue	Checker
Green Pen	Concur or Alternate Resolution	Designer
Orange Highlight	Confirmation of Correction	Detailer
Pink Highlight	Verification of Corrections Made	Designer/EOR

The Checker signs and dates the Check Print stamp upon completion of the checking. The Checker completes the Design Review Form concurrently with the checking of the Check Prints in order to augment suggested corrections, provide additional information or suggestions.

In the case where no corrections, additions or deletions are found, there is no need for backchecking or further signatures on the Check Print stamp. The Check Print and original drawing, signed in the appropriate checked block, should be returned to the Designer for placement in the projects file.

3. The Designer (or designee, as Backchecker) reviews the Checker's marks on the Check Print as well as the Design Review Form with the Checker to ensure that comments are conveyed accurately and to discuss suggestions or other issues. The Designer then personally makes or supervises the update of the Drawing Original.

To document the backchecking process, the Designer:

- o Check-marks in green each of the Checker's red-marked changes if in agreement that the Original should be changed and adds in green, with the concurrence of the Checker, any additional changes not picked up by the Checker.
- o Crosses out in green each of the Checker's red-marked changes that both the Designer and the Checker agree should not be changed. The Backchecker should not obliterate the Checker's marks.

NOTE: The Backchecker and Checker should resolve differences encountered during the checking process so they are not repeated. If resolution cannot be achieved by the two individuals, the appropriate Design Unit Engineer or Design Manager should be requested to resolve the differences.

- Signs and dates the Check Print stamp.
4. Correction of the Drawing Original should be supervised by (or drafted by) either the Designer or Checker, since both are familiar with the changes to be made.

When making the Check Print corrections to the Drawing Original, the engineer, draftsman, or CADD operator highlights in orange each correction as incorporated. The person correcting the drawing signs and dates the Check Prints stamp upon completion of the corrections.

5. When corrections are made by a third party (not the Designer or checker), the Check Print should be verified by the Checker or Designer to assure that the agreed-to corrections have been incorporated without error. If the corrections are not made or are erroneous, the Check Print with penciled instructions is returned to the corrector. The Verifier puts a pink check mark next to or pink highlight over the item after reviewing its incorporation on the Original Drawing.

The Verifier signs and dates the Check Print stamp, as applicable.

After the corrections have been verified the Checker initials the "checked by" block on the title block of the Drawing Original.

6. The completed original (or CADD file) is put under the control of the Engineer of Record or a designee in order to prevent further changes in the drawing that could invalidate the checking which has been done. The Engineer of Record or a designee releases the checked drawing to other disciplines to use as a baseline for their input, or to the client.

NOTE: When there is a change to a checked drawing, a new Check Print must be made to check the area that has been changed. The Check Print is stamped and labeled Check Print 2, 3, 4, etc. as applicable and attached to the previous check print(s). The checking follows the same procedure as that of the original Check Print, except that only the portions that changed are marked up as having been checked.

7. If changes mandated by the client at the final review are simple in nature, the Engineer of Record or a designee may abbreviate the checking process by noting the changes in red on a new Check Print (which should be sequentially numbered) and

signing the Check Print as the Backchecker, indicating that the changes do not materially affect the design. Then the normal correcting and verifying processes should be utilized.

Exceptions to the procedural documentation of the Check Prints can be given only by the QC/QA Manager based upon the size, character and complexity of the project.

### **Description of Appendices:**

The following review forms, checklists and certifications within the Appendices will be used during the project's QC/QA process as required by LADOTD's Bridge Design Section BDTM.37. The checklists and certification forms are included in the Appendices for reference.

#### Appendix A

- LADOTD Design Criteria Worksheet
- LADOTD Project Activity Log Sheet
- LADOTD Consultant Project Bridge Design Kick-Off Meeting Agenda Checklist
- LADOTD Consultant Submittal Review Checklist
- Final Calculation Book Index Checklist

#### Appendix B

- Crescent Design Comment Review Forms

#### Appendix C

- LADOTD QA Information Package Checklist
- LADOTD QC/QA Certification
- LADOTD Consultant Submittal QC/QA Certification

The Consultant Submittal QC-QA Certification will accompany all submittals as required by the Bridge Design Section QC-QA Policy. Additional checklist(s) may be added by the QC/QA Manager based upon the scope, character and complexity of the project, should this change throughout the course of design.

## **Design Criteria Checklist**

Design criteria for each project shall include, but not limited to, the following sections:

### — **Cover Sheet**

The following information must be included on the cover sheet:

- LADOTD project number
- Project name
- Revision date
- The Supervisor or Team Leader's signature and date

### — **Governing Design and Construction Specifications and Other References**

A list of governing design and construction specifications and other references used for the project shall be included in this section. The edition number, interim revisions, and/or publication date must be specified for each reference.

### — **Design Assumptions and Design Exceptions**

All design assumptions and design exceptions received must be included in this section along with supporting documents.

### — **General Information**

The general information as listed below should be included in this section:

- Bridge information (no. of bridges, bridge clear width, length, no. of lanes, lane width, shoulder width, etc.)
- Road information (roadway classifications, design speed, traffic data, etc.)
- Vertical datum
- Vertical and horizontal clearances
- Other relevant information

### — **Hydraulic Design Criteria**

All hydraulic design criteria (design year, design water elevations, scour depth and scour elevation, etc.) shall be included in this section and the information shall be provided by the Hydraulic Engineer.

### — **Design Factors**

The ductility factor  $\Gamma_D$ , redundancy factor  $\Gamma_R$ , and operational importance factor  $\Gamma_I$  shall be listed in this section.

### — **Design Loads**

All design loads (dead load, live load, wind load, thermal loads, vessel collision loads, seismic load, wave loads, etc.) used for the project shall be included in this section.

### — **Limit States**

All applicable limit states for this project shall be listed in this section.

— **Bridge Barrier Railing**

The design criteria, types, and test levels for bridge barrier railing shall be listed in this section. Standard plans should be listed if they are utilized.

— **Guardrail**

The design criteria, types, and test levels for guardrails shall be listed in this section. Standard plans should be listed if they are utilized.

— **Approach Slab**

Design criteria for approach slab shall be included in this section. Standard plans should be listed if they are utilized.

— **Deck and Deck Drainage**

All design criteria for deck and deck drainage design shall be included in this section. Standard plans should be listed if they are utilized.

— **Bearing**

All bearing types and design criteria for each bearing type shall be included in this section. Standard plans should be listed if they are utilized.

— **Joint**

All joint types and design criteria for each type shall be included in this section. Standard plans should be listed if they are utilized.

— **Superstructure**

All superstructure types and design criteria for each type shall be included in this section. Standard plans should be listed if they are utilized.

— **Substructure**

All substructure types and design criteria for each type shall be included in this section. Standard plans should be listed if they are utilized.

— **Piles and Drilled Shafts**

All pile types, sizes, and structural design criteria shall be included in this section. Standard plans should be listed if they are utilized.

— **Geotechnical Design**

All geotechnical design criteria shall be included in this section and the information shall be provided by the Geotechnical Engineer. Standard plans should be listed if they are utilized.

— **Mechanical Design**

All mechanical design criteria shall be included in this section if applicable. Standard plans should be listed if they are utilized.

— **Electrical/Lighting Design**

All electrical design criteria shall be included in this section if applicable. Standard plans should be listed if they are utilized.

- **As-Designed Bridge Rating Criteria**  
All as-designed bridge rating criteria shall be included in this section.
  
- **Software**  
All software used for design and check shall be included in this section.



**APPENDIX H—CONSULTANT PROJECT BRIDGE DESIGN KICK-OFF MEETING AGENDA CHECKLIST**

A kick-off meeting with the Consultant's bridge design team shall be initiated by the LADOTD Bridge Design Task Manager once the project is awarded. The meeting agenda shall include, but not be limited to, the following items:

- Introduce LADOTD Bridge Task Manager and the Consultant's Key Team Members (The Supervisor or Team Leader and Key Designers/Design Checkers/Reviewers)
  
- Discuss Consultant's Staffing Plan and Implementation of QC/QA Plan Document  
(The staffing plan should include names and responsibilities of the designers, detailers, checkers, reviewers, and the EOR.)
  
- Determine Schedules for Project Submittals  
(Design Criteria, TS & L, 30%, 60%, 90%, 100% of Preliminary Plans and Final Plans, Final Calculations, etc.)
  
- Share Expectations and Consultant Rating Criteria  
(Consultant rating will be performed for all project submittals shown on the project submittal schedule.)
  
- Discuss Design Criteria
  
- Discuss Budget, Supplemental Requests, Invoices, and Importance of Avoiding Claims (Staff shown on invoices will be reviewed in accordance with the staffing plan.)



APPENDIX K—CONSULTANT SUBMITTAL REVIEW CHECKLIST

Items	Submittals											Final Calculations Book	Plan Revisions	Change Orders	
	Design Criteria	FS&I	30% FP	60% FP	90% FP	100% FP	30% FP	60% FP	90% FP	100% FP					
Consultant Submittal QC/QA Certification			R	R	R	R	R	R	R	R	R	R	R	R	R
Design Criteria	C														
FS&I		C													
Bridge Index			D	D	D	D	D	D	C	S					
General Notes			D	D	D	D	D	D	C	S					
Summary of Estimated Quantities			D	D	C	C	D	D	C	S					
General Plans			D	D	C	C	C	C	C	S					
Typical Sections			D	D	C	C									
Elevation Diagram				D	D	C	C	C	C	S					
Construction Phasing Details				D	D	C	C	C	C	S					
Traffic Control Details				D	D	C	C	C	C	S					
Foundation/Pile Layout				D	D	C	C	C	C	S					
Pile Loads/Details					D	D	D	C	C	S					
Pile Data Tables							D	D	C	S					
Beam Details							D	D	C	S					
Fanlight Details								D	D	C	S				
Girder Details								D	D	C	S				
Span Details								D	D	C	S				
Joint Details									D	C	S				
Haarung Details									D	C	S				
Approach Slab									D	C	S				
Guardrail Details									D	C	S				
Bridge Barrier/Railing Details									D	C	S				
Bridge Drainage Details									D	C	S				
Detour Bridge Details									D	C	S				
Reinforcement Details									D	C	S				
Signage/ Lighting Details									D	C	S				
Year Plate									D	C	S				
Rebar Support									D	C	S				
Misc. Details									D	C	S				
Project Specific Standard Plans									D	C	S				
Electrical/ Lighting Details									D	C	S				
Mechanical Details									D	C	S				
As-Built Plans									D	C	C				
Special Provisions/NS- Items								D	D	C	C				
Cost Estimate					D	D	D	D	C	C					
Final Calculations											S				
Revised Plans/Calculations												S	S	S	S

Legend:  
 "R" - The item is required and shall be included in the submittal.  
 "C" - The item shall be complete and shall be included in the submittal.  
 "D" - The item shall be in development and shall be included in the submittal.  
 "S" - The item is stipulated by the GCR and shall be included in the submittal.

## **Final Calculation Book Checklist**

The final calculation book for each project shall include, but not limited to, the following sections:

— **Cover Sheet**

The following information must be included on the cover sheet:

- LADOTD project number
- Project name
- The title of “Final Calculation Book”
- The EOR’s seal with signature and date

— **Final Calculation Book Check List**

— **QC/QA Certifications**

— **Peer Review Resolution Agreement (if peer review is performed)**

— **Design Criteria**

— **Final Hydraulic Analysis Report from Hydraulic Engineer**

— **Final Geotechnical Analysis Report from Geotechnical Engineer**

— **Superstructure Design Calculations**

— **Substructure Design Calculations**

— **Quantity Calculations**

— **Special Provisions/NS-Items**

— **Construction Cost Estimate**

— **As-Designed Rating Report**

— **List of All Final Electronic Design Files and File Locations (ProjectWise directory name)**

Consultants shall submit the final calculation book to LADOTD bridge task managers; the submittal shall be on a CD or Flash Drive or placed to a designated ProjectWise folder and include the following information:

— **A PDF File of the Calculation Book**

— **All Electronic Design Files**

— **A PDF File of the As-Designed Rating Report Only**

<b>QC/QA REVIEW COMMENT SUMMARY AND RESOLUTION SHEET</b>		
Project Name: XXX	 Engineer: Dennis Hymel, Jr., P.E. Reviewer: XXX	Date: XXXXX
Project Number: H.0XXXXX		Page: 1 of 1
Submittal: 60% Preliminary	<b>RESPONSE CODE</b> 1. Concur / Accept comment 2. Non-Concur / Disagree with comment 3. Conflicts with previous directive 4. For Information Only 5. Clarify or discussion required 6. Delete comment 7. Resolution of comment in next phase 8. See additional comment	

• GENERAL USE (THIS SECTION)								
Item No.	Date	(1)Source	Reviewer Comments	(2)Code	(2)Date	(3)Responses	(4)Final Resolution	
							Code	Date
1	8/31	2a	Revise typical section to include X.	1	9/10	Will incorporate.	1	9/15

If no comment, write "NO COMMENT"	Signature of Reviewer	Agency/Company Sign-off
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(1) Indicates the document / model , or use "G" for General Comment  
 (2) Design Firm/Agency response code & date to reviewer comment  
 (3) Design Firm/Agency response to reviewer comment  
 (4) To be filled out during back check / subsequent meeting/discussion

**QA Information Package Checklist**

Project No.:

Project Description:

\_\_\_\_\_ Calculation Book

\_\_\_\_\_ Plans

\_\_\_\_\_ Special Provisions

\_\_\_\_\_ Cost Estimate

\_\_\_\_\_ Other Documents \_\_\_\_\_

## QC/QA Certification

Project No.:

Project Name:

We, the undersigned designers, detailers, checkers and reviewers for this project, have reviewed and accepted the calculations, plans, quantities, special provisions, and cost estimate prepared for the project. We certify that the work for which we are responsible has been completed in accordance with the LADOTD Bridge Design Section policy on QC/QA.

Team Members	Name	PE Registration No.	Responsible Plan Sheets	Responsible Special Provisions	Construction Cost Estimate	Signature
Designers						
Design Checkers						
Detailers						
Detail Checkers						
Reviewers						
Peer Reviewer						
Geotechnical Engineer						
Hydraulic Engineer						
EOR						

**Consultant Submittal QC/QA Certification**

Project No.:

Project Name:

I, the undersigned Supervisor or Team Leader for this project, certify that the information included in this submittal has been prepared in accordance with the QC/QA plan documents and LADOTD Bridge Design Section policy on QC/QA and the information presented is accurate and meets the requirements of this submittal. All CAD drawings meet LADOTD CAD standards.

\_\_\_\_\_  
Submittal Description

\_\_\_\_\_  
Supervisor or Team Leader Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## 22. SUB-CONSULTANT INFORMATION:

<b>Firm Name</b> (Name must match as registered with Louisiana's Secretary of State)	<b>Address</b>	<b>Point of Contact and email address</b>	<b>Phone Number</b>
 <b>Crescent Engineering &amp; Mapping, LLC</b>	PO Box 370 Vacherie, LA 70090	Dennis M. Hymel, Jr., PE Dennis.hymel@crescentengla.com	225.329.1742
 <b>VECTURA Consulting Services, LLC</b>	8000 Innovation Park Drive Baton Rouge, LA 70820	Brin Ferlito, PE, PTOE bferlito@vecturacs.com	225.223.6685



### 23. LOCATION:

If location is an evaluation criterion for this advertisement and the prime consultant intends to establish a local presence, describe the plan for doing so. Otherwise, leave this section blank.

