LA 44: I-10 ROUNDABOUTS

CONTRACT NO. 4400028432

Prepared for
LOUISIANA DEPARTMENT OF
TRANSPORTATION AND DEVELOPMENT

Prepared by
STANTEC CONSULTING SERVICES INC.

FEBRUARY 7, 2024

LA 447 / I-12 Interchange

Sections 1-13

LA 447 / I-12 INTERCHANGE

DOTD FORM: 24-102

(Revised January 1, 2023)

PROPOSAL TO PROVIDE CONSULTANT SERVICES

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 IN-ACCURATE INFORMATION ON THE DOTD FORM 24-102, MAY BE CONSIDERED NON-RESPONSIVE.

Prime consultant should enter the firm name in the footer at the bottom of this page. (It will carry over to subsequent pages.)

1.	Contract title as shown in the advertisement.	**LA 44: I-10 Roundabouts** **Route LA 44 & I-10**
2.	Contract number(s) as shown in the advertisement	No. 4400028432
3.	State Project Number(s), if shown in the advertisement	H.015569.5
4.	Prime consultant name (name must match as registered with the Louisiana Secretary of State where such registration is required by law)	Stantec Consulting Services Inc.
5.	Prime consultant license number (as registered with the Louisiana Professional Engineering and Land Surveying Board (LAPELS) if registration is required under Louisiana law)	EF.0003506
6.	Prime consultant mailing address	1200 Brickyard Lane Suite 400, Baton Rouge, LA 70802
7.	Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	1200 Brickyard Lane Suite 400, Baton Rouge, LA 70802
8.	Name, title, phone number, and email address of prime consultant's contract point of contact	**Cindy Hall, PE, Senior Principal** (225) 215-5106 | cindy.hall@stantec.com
9.	Name title, phone number, and email address of the official with signing authority for this proposal	**Cindy Hall, PE, Senior Principal** (225) 215-5106 | cindy.hall@stantec.com

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.	Cindy M. Hall 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.	**Firms(s) Firm(s)' %:** **Vectura Consulting Services, LLC 6%**

12. **Past Performance Evaluation Discipline Table:**

As indicated in the advertisement, insert the completed table here. The percentages for the prime and sub-consultants must total 100% for **each past performance evaluation discipline**, as well as the overall total percent of the contract.

The only past performance evaluation disciplines to be used are: Road, Bridge, Traffic, CE&I/OV, Geotech, Survey, Environmental, Data Collection, Planning, Right-of-Way, CPM, ITS, Appraiser and Other (please specify).

Past Performance Evaluation Disciplines	% of Overall Contract	Stantec Consulting Services Inc. (Prime)	Vectura Consulting Services, LLC (DBE)	Each Discipline must total to 100%
★ Road	74%	100%	0%	100%
★★ Bridge	20%	100%	0%	100%
★★★ Traffic	6%	0%	100%	100%
Identify the percentage of work for the **overall contract** to be performed by the prime consultant and each sub-consultant.				
Percent of Contract	100%	94%	6%	100%

★ *Includes Prelim. and Final Roadway Plans, Estimates, Hydraulic Analysis and Design, Road Design Services for Environmental Clearance and Permitting (as needed), Special Provision Write-ups, TMP/Drainage Analysis, SWPP, Quality Plan Reviews, Construction Pre-bid activities, Cost Estimates, Review of Bids, and Roadway related Construction Support services (if needed)*

★★ *Includes site visit and structural evaluation of existing bridge, comprehensive bridge evaluation report, AASHTO LRFD Bridge Design (widening or replacing), Preliminary and Final Bridge Plans, miscellaneous structural element design and details, load ratings, Quality Plan Reviews, Special Provision Write-ups, Cost Estimates, Construction Pre-bid activities and Structural related Construction Support services (show drawings, RFIs, etc., if needed)*

★★★ *Includes review of traffic and safety data, TMP, Temporary Traffic Signal Plans, Cost Estimates, and Assist with Temporary Traffic Control Plans*

13. **Firm Size:**
For all firms that are part of this team, indicate the approximate number of personnel to be committed to this contract, by DOTD Job Classification and the total number of personnel within the firm that could provide support, if needed. If a specialized job classification is required and not included on the DOTD job classification list, specify “Other (please specify)” and include the classification title inside the parentheses.
The DOTD Job Classification(s) to be used can be found at the following link:
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/CCS/Job_Qualification/Job%20Classifications%20with%20Descriptions.pdf

Firm Name	DOTD Job Classification	Number of personnel committed to this contract	Total number of personnel available in this DOTD Job Classification (if needed)
Stantec Consulting Services Inc.	Principal	1	3
Stantec Consulting Services Inc.	Supervisor - Eng	2	3
Stantec Consulting Services Inc.	Engineer	9	22
Stantec Consulting Services Inc.	Engineer Intern	1	4
Stantec Consulting Services Inc.	Senior Technician	1	1
Stantec Consulting Services Inc.	CADD Technician	1	3
Stantec Consulting Services Inc.	Administrative	1	4
Stantec Consulting Services Inc.	Planner	1	2
Vectura Consulting Services, LLC	Supervisor - Eng	2	2
Vectura Consulting Services, LLC	Engineer	2	3
Vectura Consulting Services, LLC	Engineer Intern	1	2
Vectura Consulting Services, LLC	Inspector	0	2
Vectura Consulting Services, LLC	Supervisor – Other	0	1

Sections 14-16

WEST PRIEN LAKE ROAD
RELOCATION

14. **Organizational Chart:**
Provide an organizational chart showing ALL **relevant** prime consultant and sub-consultant (if applicable) personnel assigned to the contract, area of project responsibility for each, and reporting lines for the purposes of this contract. An individual's role does not necessarily have to match their DOTD job classification identified in Section 13. If applicable, identify all personnel performing traffic engineering analysis and/or QC of traffic engineering analysis by placing an asterisk next to their name. Include the certificates required by the Traffic Engineering Process and Report Training Requirements article of the Advertisement in Section 20. It is acceptable to use an 11x17 format for Section 14.

Legend

- Stantec Consulting Services Inc.
- Vectura Consulting Services, LLC

# Denotes MPR No.
* Traffic Engineering Process and Report Training
[T] Has Work-Zone Training
[B] Meets NBIS Team Leader Criteria

PRINCIPAL-IN-CHARGE
- **Cindy Hall,** PE *T [1, 2]

PROJECT MANAGER
- **Nick Prudhomme,** PE T [3]

QA / QC
- **Joseph "Joe" Cains III,** PE *T *(Roadway)* [3]
- **Brian Johnson,** PE B *(Bridge)* [4]
- **Joey Lefante,** PE, PTOE *T *(Traffic)* [6]
- **Laurence Lambert,** PE, PTOE, PTP *T *(TMP)* [6]

ROADWAY/DRAINAGE DESIGN
- Mary Frances (Bratton) O'Rourke, PE T *(Task Lead)*
- Michael Neumann, PE T *(Drainage & InRoads)*
- Hannah Krebs, PE T *(Geometrics & MOT)*

BRIDGE INSPECTION + DESIGN + LOAD RATING
- John Krebs, PE T B *(Task Lead)* [4]
- Maggie Ye, PE *(Load Rating)* [5]
- Kunal Malpani, PE B *(Inspection & Design)* [5]

TRAFFIC ENGINEERING
- Sheelagh Brin Ferlito, PE, PTOE *T *(Task Lead)* [6]
- Reece Rodrigue, PE, PTOE, RSP1 *T
- Kristen Gahagan Farrington, PE, PTOE, RSP1 *T

TECHNICAL SUPPORT
- Bryan Mason *(Permitting)*
- Derrick Goudeau, PE T *(Lighting - as needed)*

The Stantec Team we have assembled for the LA 44: I-10 Roundabouts Project was chosen for their expertise in roundabouts, structural design, and load ratings. Each engineer listed has worked on roundabouts and other geometrically innovative projects. The engineers listed work together well and will bring their experience to bear to produce a well-thought-out and constructible plan set.

15. **Minimum Personnel Requirements:**
Use the table below to identify both prime consultant and sub-consultant staff designated to work on this contract meeting the Minimum Personnel Requirements (MPRs) specified in the advertisement. Ensure the résumé reflects the required experience stated in the MPR. Make sure the P.E. discipline is also listed (highlighted in table) that is meeting the MPR; e.g. professional civil engineer should show the discipline of the license as civil if meeting that MPR.

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 & Number *(Ex: PE # - Civil)*	State of License	License/Certification Expiration Date
1.	Cindy Hall, PE	Stantec Consulting Services Inc.	PE No. 27073 - Civil	LA	9/30/2025
2.	Cindy Hall, PE	Stantec Consulting Services Inc.	PE No. 27073 - Civil	LA	9/30/2025
3.	Nick Prudhomme, PE Joe Cains, PE	Stantec Consulting Services Inc. Stantec Consulting Services Inc.	PE No. 35996 - Civil PE No. 33670 - Civil	LA LA	3/31/2025 3/31/2024
4.	Brian Johnson, PE John Krebs, PE	Stantec Consulting Services Inc. Stantec Consulting Services Inc.	PE No. 31273 - Civil PE No. 37259 - Civil	LA LA	9/30/2024 9/30/2024
5.	Kunal Malpani, PE Maggie Ye, PE	Stantec Consulting Services Inc. Stantec Consulting Services Inc.	PE No. 43016 - Civil PE No. 44061 - Civil	LA LA	3/31/2025 3/31/2024
6.	Joey Lefante, PE, PTOE Sheelagh Brin Ferlito, PE, PTOE Laurence Lambert, PE, PTOE, PTP	Stantec Consulting Services Inc. Vectura Consulting Services, LLC Vectura Consulting Services, LLC	PE No. 37244 - Civil PE No. 25383 - Civil PE No. 29901 - Civil	LA LA LA	9/30/2024 9/30/2025 3/31/2024

16. **Staff Experience:**

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**		
NAME	**Cindy Hall, PE**	YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**31**
TITLE	**Senior Principal, Transportation Infrastructure Engineer**	YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**0**
DEGREE(S) / YEARS / SPECIALIZATION	**BS | 1992 | Civil Engineering**		
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 27073 | LA | 09/30/2025**		
YEAR REGISTERED: **1997**	DISCIPLINE: **Civil Engineering**		

Contract role(s) / brief description of responsibilities	Cindy's 31 years of experience include the design and project management of various civil and transportation projects. As Roadway Division Manager, Cindy manages the productivity of the roadway staff and oversees the quality of the plans and specifications developed by the Roadway Division. She has also served as project manager on many transportation projects including interstate and interchange improvements, rural arterials, and urban roadways with subsurface drainage and traffic signalization. Cindy has been involved in numerous projects implementing innovative geometric solutions including continuous flow intersections, a diverging diamond interchange, and roundabouts. She has also recently been involved in four Design-Build projects for LADOTD. In addition to her transportation experience, Cindy has designed and managed many wastewater pipeline, pump station projects, and utility relocations over the course of her career. Cindy will serve as **PRINCIPAL-IN-CHARGE** for this contract. **Cindy meets the Minimum Personnel Requirements (MPRs) #1, 2**
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).
05/12 - 12/21	**GOVERNMENT STREET ROAD DIET: STUDY THROUGH FINAL DESIGN | LADOTD | Baton Rouge, LA** Project Manager. Cindy managed the evaluation of alternatives during the environmental phase for this four-mile portion of Government Street. She attended public meetings and managed public preliminary and final plan development phases. Cindy coordinated with LADOTD, City of Baton Rouge, BREC, CATS, and other project stakeholders. The project rehabilitated and re-striped existing roadway from a four-lane section to a three-lane section (Road Diet). Restriping the roadway allowed the reclaimed pavement to be used for multi-modal and streetscape improvements. Bike lane improvements and vegetative median islands were added to the corridor and sidewalks were brought up to ADA compliance. This project included a single-lane roundabout with bypass lanes designed for the Lobdell Avenue intersection, complete street improvements, access management, and community enhancements. Cindy provided construction support services during construction, which was completed at the end of 2021.
04/11 - 06/15	**I-210: COVE LANE INTERCHANGE AND IMPROVEMENTS PROJECT | LADOTD | Lake Charles, LA** Roadway Engineer. Cindy was responsible for the sequence of construction and maintenance of traffic plans for this complex, tight diamond interchange which required ramps elevated on MSE walls, two new bridges, and surface street improvements including a new roundabout. Cindy was also responsible for the Level 2 Transportation Management Plan required for the project including safety and traffic analyses and traffic management strategies.
03/07 - 12/12	**RIVER ROAD (LA 327) RELOCATION | LADOTD | Baton Rouge, LA** Quality Control. Cindy performed QA/QC plan check of construction plans for three roundabouts on Relocated River Road. She also reviewed plans for off-site improvements identified in the Traffic Impact Study, including several intersections with turn lane and signal improvements.
01/18 - 08/18	**DIJON DRIVE PHASE I & PHASE II | City of Baton Rouge | Baton Rouge, LA** Quality Control. Stantec designed this roadway on new alignment for the City of Baton Rouge as an access roadway to the new Our Lady of the Lake Children's Hospital. This fast-paced project included a four-lane divided roadway on new alignment, sanitary sewer force main, subsurface drainage, signalization, and off-site intersection improvements. Cindy was responsible for quality control during the course of this project which was broken into two phases. Cindy reviewed each phase of work two times and offered comments before major milestone submittals.
07/19 - Ongoing	**MOVEBR PROGRAM MANAGEMENT | City of Baton Rouge | Baton Rouge, LA** Quality Control Project Reviewer. Cindy serves as QC Project Reviewer concentrating on Roadway and Complete Streets reviews. Cindy has reviewed design studies, preliminary and final plans, quantities, and construction cost estimates for corridor, signal, and sidewalk improvement projects.

11/12 - 03/23	**PERKINS ROAD (SIEGEN TO PECUE) WIDENING TRAFFIC STUDY, ENVIRONMENTAL ASSESSMENT (EA), PRELIMINARY PLANS, FINAL PLANS AND RIGHT-OF-WAY MAPS | City of Baton Rouge Contract 12-CS-HC-0015 | Baton Rouge, LA** Project Manager. This project initially included an EA and Preliminary Plans for improving 3.4 miles of Perkins Road (LA 427) from the existing two-lane roadway to a four-lane divided curb and gutter roadway with raised median, sidewalk, sewer, and subsurface drainage. During the EA phase, Cindy was responsible for Line and grade alternatives study, stakeholder coordination, public outreach, led EA phase, preliminary plans (geometry, drainage, sequence of construction, signalization, preliminary construction cost estimate), and final ROW maps. Under the MOVEBR Program, Stantec completed Final Plans for Perkins Road from Siegen Lane to Pecue Lane using MOVEBR design criteria. This widening project accommodates the increase in traffic and improves travel efficiency along this corridor by introducing access management principles which have been shown to increase capacity and safety. Partial median openings and u-turn movements with bulb outs were provided along the corridor. Stantec was responsible for all final design including roadway and traffic signal plans, subsurface drainage and culvert design, and wetlands permitting. Final plans for this project were completed in March of 2023.
08/19 - Ongoing	**I-10/LOYOLA INTERCHANGE DESIGN-BUILD | LADOTD | New Orleans, LA** Design Manager. Cindy manages this multimillion-dollar project that will improve access and traffic operations to and around the new Northfield Terminal of the New Orleans Airport. Cindy is overseeing the design and plan preparation efforts to add two directional flyover ramps, I-10 Westbound to Loyola Southbound, and Loyola Northbound to I-10 Eastbound. The D-B Team recommended an alternative technical concept which included a Diverging Diamond Interchange and required the completion of the Interchange Modification Report (IMR) and a Reevaluation of the Environmental Assessment. Cindy assisted Stantec's traffic engineers with the IMR and Level 4 TMP by evaluating and documenting critical geometry, signing, striping, and work zone strategies. Cindy and her project team provided exhibits and traffic models that were used during the public meeting and assisted DOTD with costs and documentation of the impacts for the reevaluation. Cindy has worked with the contractor to develop phased construction plans and design unit plan sets to construct critical path items first. She has worked with the D-B team to implement cost/schedule savings through design modifications and alternative material selections. She has worked with numerous stakeholders during the execution of this project including DOTD, FHWA, City of Kenner, Jefferson Parish, and the Airport.
05/15 - 06/18	**US 90 AT LA 318 INTERCHANGE DESIGN-BUILD | LADOTD | St. Mary Parish, LA** Design Manager. Cindy managed the design for this Design-Build project which improved the intersection of US 90 at LA 318 to a grade-separated interchange and brought US 90 up to interstate standards as a part of the Future I-49 Corridor. The project included dual overpass bridges, ramps, and frontage road relocations. The new frontage roads were used to maintain traffic during the construction of the overpass bridges. Stantec proposed an alternative technical concept to the proposed alternative in the RFP. This ATC conserved ROW, lessened impacts to the community and the environment, and saved construction cost. Stantec was also responsible for acquiring the ROW while construction was ongoing. Cindy also managed the relocation of utilities during construction and designed water and sewer relocations for St. Mary Parish. Stantec remained involved throughout construction and participated in resolving design and construction non-conformance issues and requests for information. Construction was complete in January of 2018.
10/09 - 06/11	**US 90 AT LA 85 INTERCHANGE DESIGN-BUILD | LADOTD Contract No. 424-04-0032 | Iberia Parish, LA** Design Quality Control Manager. Cindy led the design QC effort for this project to elevate the rural arterial to urban interstate standards. The Design-Build Team designed upgrades involving construction of a concrete girder span bridge over Louisiana 85 along the US 90 corridor, an extensive rehabilitation of frontage roads and ramps, and the installation and upgrade of permanent drainage structures. As Design Quality Control Manager, Cindy was responsible for developing the Design Quality Control Manual, managing the Design Quality Control Reviews, responding to comments, holding design review meetings, distributing plan submittals, and documenting quality control records. During construction, she was responsible for adherence to the construction plans and the resolution of design non-conformance reports. Construction was completed, and the interchange opened to the public, in June 2011.
11/09 - 08/12	**I-12 WIDENING DESIGN-BUILD | LADOTD Contract No. 454-02-0071 | Livingston Parish, LA** Lead Roadway Engineer. Cindy was responsible for Stantec's roadway design efforts to widen a four-mile stretch of Interstate, from the Amite River to the Juban Road interchange. The design included widening, removal, overlay and replacement of various pavement sections, ramp deceleration lane improvements, and widening of the Gray's Creek Bridge and the 4-H Club Road and Range Avenue overpasses. The project required extensive maintenance of traffic and traffic control plans on this heavily traveled stretch of urban interstate. In addition to designing the construction plans, Cindy was actively involved in the construction phase, assisting the contractor by developing quality, cost-effective solutions that met or exceeded contract scope requirements.
08/05 - 12/13	**STARING LANE WIDENING AND BRIDGE | City of Baton Rouge | Baton Rouge, LA** Project Manager. This Green Light Plan project required a design study and plan development for a new, four-lane urban boulevard with a 30-foot median with subsurface drainage, sidewalks, and traffic signals. Cindy led construction plan development and design of preliminary and final plans including geometrics, intersections, earthwork modeling, striping, quantities, signal design, sanitary sewer force main design, and quality control. She also attended public meetings and coordinated with City and subconsultants.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**			
NAME	**Nick Prudhomme, PE**		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**17**
TITLE	**Roadway Engineer**		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**0**
DEGREE(S) / YEARS / SPECIALIZATION		**BS | 2006 | Civil Engineering**		
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE		**PE No. 35996 | LA | 3/31/2025**		
YEAR REGISTERED	**2011**	DISCIPLINE	**Civil Engineering**	

Contract role(s) / brief description of responsibilities	Nick has over 17 years of experience in feasibility/alternative studies and preliminary and final design of interstates, entrance and exit ramps, arterials, local roads, bridge replacement projects, and other similar transportation systems along both existing and proposed alignments. His experience also includes training courses for Traffic Control Supervisor, Traffic Control Design Specialist, and training in the Highway Safety Manual. Nick will serve as **PROJECT MANAGER** for this contract. **Nick meets the Minimum Personnel Requirements (MPRs) #3** 
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).
01/14 - 03/18	**LA 86 AT LA 320 ROUNDABOUT | LADOTD H.009142 | New Iberia, LA** Roadway Lead. As a task order for a Safety Retainer Contract with LADOTD, this project proposed to install a single lane roundabout at the intersection of LA 86 and LA 320 located on the outskirts of New Iberia, LA. This project site had a history of high-crash frequency, and a roundabout was proposed to mitigate these safety issues, as well as address excessive queuing of vehicles due to the existing 4-way stop control. The intersection design also included special consideration for windmill transport vehicles over 155 feet long. Additionally, to address the concerns of the public, special consideration was made for the timing of construction in this heavily agricultural community by ensuring that sugarcane transport vehicles were not impeded during harvest season. Nick headed the effort for project delivery including all roadway design aspects such as horizontal and vertical geometry, striping, signing, drainage, roadway modeling, and cost estimation. Stantec was able to deliver the plans in less than 2 years, with construction lasting for about 3 years. Construction support was provided during the construction phase to address contractor questions, RFIs, etc.
04/15 - Ongoing	**LA 30: SOUTH BOULEVARD TO WEST CHIMES STREET | LADOTD | Baton Rouge, LA** Roadway Lead. Nick oversaw all aspects of the roadway design including horizontal and vertical geometry, roadway modeling, drainage, striping, sequence of construction, and quantities. LA 30, also known as Nicholson Drive, is a commuter route that connects LSU and downtown Baton Rouge. Additional scope included the realignment of the Interstate 10 off-ramp to Nicholson Dr. and Highland Rd. and the widening of Oklahoma street from a two-lane to four-lane section. The plan set currently consists of typical sections, plan and profile sheets, drainage details, pavement markings, signs, sequence of construction, traffic signal plans, right of way plans, and bridge plans. The project is currently under construction, and Nick is providing construction services including shop drawing checks, field visits, and RFI responses.
11/12 - 03/23	**PERKINS ROAD (SIEGEN TO PECUE) WIDENING TRAFFIC STUDY, ENVIRONMENTAL ASSESSMENT (EA), PRELIMINARY PLANS, FINAL PLANS AND RIGHT-OF-WAY MAPS | City of Baton Rouge Contract 12-CS-HC-0015 | Baton Rouge, LA** Roadway Lead. This project initially included EA and Preliminary Plans for improving 3.4 miles of Perkins Road (LA 427) from the existing, two-lane roadway to a four-lane divided curb and gutter roadway with raised median, sidewalk, sewer, and subsurface drainage. During the EA phase, Nick assisted with the alternative analyses, conceptual drainage design, public meeting materials and presentations, and the development of the EA report and documentation. During preliminary plan development, he assisted in all areas of design and plan development including client interaction, drainage design, drainage report, roadway modeling and earthwork analyses using InRoads, quantity calculations, and construction cost estimate. Under the MOVEBR Program, Stantec completed Final Plans using MOVEBR design criteria and is responsible for all final design including roadway and traffic signal plans, subsurface drainage and culvert design, and wetlands permitting. Final plans for this project were completed in March of 2023.

01/06 - 12/13	**STARING LANE WIDENING AND BRIDGE | City of Baton Rouge | Baton Rouge, LA** Roadway Engineer. Nick worked with the roadway division assisting with drainage improvements for the project. Project involved the design and plan development for a new 4-lane urban boulevard with a 30ft median. The new design will include subsurface drainage, sidewalks and traffic signals. Stantec handled the design of two bridges as part of the overall development of the project. In addition, Stantec was in charge of construction plan development and design of preliminary and final plans including geometrics, intersections, earthwork modeling, striping, sequence of construction, quantities, signal design and quality control.
08/19 - Ongoing	**I-10/LOYOLA INTERCHANGE DESIGN-BUILD | LADOTD Contract No. H.011670 | New Orleans, LA** Assistant Roadway Lead and Drainage Lead. As Drainage Lead, Nick oversees the drainage design consisting of subsurface drainage systems along Loyola Drive and the new airport access road, drainage systems/cross drains on I-10, and the extension of 2-8'x7' box culverts in Canal 13. As Assistant Roadway Lead, Nick has designed horizontal and vertical geometry, graphical grades, and Inroads roadway modeling. Nick also performs construction support by reviewing and approving drainage shop drawings as well as RFIs and NCRs relating to drainage and roadway design. This project will serve as a main entrance to the new airport terminal recently constructed for the Louis Armstrong New Orleans International Airport.
07/15 - Ongoing	**I-49 LAFAYETTE CONNECTOR | LADOTD | Lafayette, LA** Roadway/Drainage Engineer. Nick is responsible for overseeing the design of the Willow Street interchange, including horizontal and vertical design, roadway clearance and sight line checks, InRoads modeling, and quantity calculations. Project includes the construction of a freeway with accompanying interchanges in the Evangeline Thruway/US 90/US 167 corridor and flanking frontage roads for local traffic circulation and land access. A critical transportation link, the I-49 Connector will connect existing I-49 with new interstate mileage through Lafayette and to New Orleans.
04/11 - 06/15	**I-210: COVE LANE INTERCHANGE AND IMPROVEMENTS PROJECT | LADOTD H.010151 | Lake Charles, LA** Roadway Engineer. Nick assisted in the design and plan development for the proposed full tight diamond interchange at Cove Lane and I-210. He was responsible for all the earthwork calculations for the interchange improvements, as well as the extension of existing Cove Lane to the north. The project included retaining walls and a load transfer platform which were included in Nick's cross section design. Nick was also involved with geometric modeling and quantity calculations.
05/12 - 12/21	**GOVERNMENT STREET ROAD DIET: STUDY THROUGH FINAL DESIGN | LADOTD | Baton Rouge, LA** Roadway Engineer. Nick assisted with the roundabout design for a four-mile upgrade to a portion of Government Street. He assisted with designs/plan development including typical sections, plan sheets, geometric details, signing and striping, sequence of construction, and quantity calculations. He also developed the cost estimate for construction and provided construction support.
09/07 - 10/12	**RYAN STREET EXIT RAMPS | LADOTD | Lake Charles, LA** Roadway Engineer. Project plans included two new slip ramps, frontage road, and surface street improvements. This project provides direct access to Ryan Street from East and Westbound I-10. Under direct supervision of the engineer in responsible charge, Nick's responsibilities covered all areas of plan development including horizontal and vertical design, superelevation design, drainage design, earthwork modeling, cross section development, joint layout, striping layout, sequence of construction, quantity calculations, and cost estimation.
05/15 - 06/18	**US 90 AT LA 318 INTERCHANGE DESIGN-BUILD | LADOTD | St. Mary Parish, LA** Roadway Engineer. Nick performed subsurface drainage analysis and design, earthwork modeling, cross section generation, and quantity calculations. The project included dual overpass bridges, ramps, and frontage road relocations. Stantec proposed an alternative technical concept to the proposed alternative in the RFP. This ATC conserved ROW, lessened impacts to the community and the environment, and saved construction cost. Nick remained involved throughout construction and participated in resolving design and construction non-conformance issues and requests for information.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**			
NAME	**Joseph "Joe" Cains, III, PE**		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**20**
TITLE	**Senior Associate**		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**0**
DEGREE(S) / YEARS / SPECIALIZATION	**BS | 2003 | Civil Engineering**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 33670 | LA | 03/31/2024**			
YEAR REGISTERED	**2008**	DISCIPLINE	**Civil Engineering**	

Contract role(s) / brief description of responsibilities	Joe has over 20 years of experience for various project types, including interstates and interchanges, arterials and collector highways, local roads, bridge replacement projects, and other similar transportation systems, on both existing highway alignments and new locations. He also has experience with innovative intersections including roundabouts, DDIs, and CFIs, and has been involved in several major projects involving compressed schedules and quick turnaround deadlines. He has experience in both traditional and alternative delivery types as well as Construction Administration services, allowing him to help lead the charge in the transportation industry for Stantec in the State of Louisiana. **Joe's role for this contract will include QA/QC (Roadway). Joe meets the following Minimum Personnel Requirements (MPRs) as specified in the advertisement for this project: 3** 
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).
01/13 - 01/15	**LA 447/I-12 INTERCHANGE | LADOTD | Livingston Parish, LA** Project Manager. Joe managed the roadway design of improvements to the existing ramp terminal intersections for the diamond interchange at LA 447 and Interstate 12. The proposed roundabout improvements at both ramp terminals facilitate traffic movements in all directions, as well as provide bypass lanes for I-12 eastbound & westbound traffic, which increase the overall operation of the interchange. Both roundabout locations proposed are multilane roundabout intersections, featuring two circulating lanes for the north and south approaches. The roundabout approaches expand from two to four lanes on each side of the existing LA 447 bridge that overpasses I-12. The location of the roundabout intersections were strategically placed to expedite construction and maintain traffic during the construction phase. Joe designed all horizontal and vertical geometry including the roundabout intersection and other roadway improvement elements, and lead the plan development efforts for this interchange improvement, which included study and investigation of future phased construction including the partial cloverleaf improvement planned at the I-12 interchange, assuring that the design would provide space for minimal reconstruction in the future.
03/07 - 12/12	**RIVER ROAD (LA 327) RELOCATION | LADOTD | Baton Rouge, LA** Lead Roadway Engineer and Assistant Project Manager. Joe led roadway design and plan development efforts to relocate River Road for approx. 1.1 miles and install three new, single-lane, roundabout intersections for the proposed development access that mitigated impacts for this $400M+ casino development. In addition to the River Road Relocation effort, he led the management, design, and plan development for five offsite intersections also associated with the traffic impact for this development. In addition to designing the horizontal and vertical geometry for these improvements, Joe also designed the drainage elements for the project (paved gutter drains, culvert design, and open ditch design), striping and signage, maintenance of traffic plans, and assisted with coordination of utilities and lighting for the project. He was heavily involved in the client coordination and project coordination efforts during the planning of the development. Joe was also heavily involved in the construction phase of the project, including construction support and construction administration. This project made history for being the first roundabout in Baton Rouge.
08/14 - 08/19	**W. PRIEN LAKE ROAD RELOCATION | LADOTD | Lake Charles, LA** Project Manager. Joe served as Project Manager for the Preliminary and Final Design Phases of this project, that proposed to realign W. Prien Lake road for approx. 1.4 miles to improve interchange operations at I-210 and Nelson Road. Joe designed the original horizontal and vertical geometry for the project that included a multi-lane roundabout, and later oversaw the final design of the horizontal and vertical geometry, as well as provided general oversight, guidance, and coordination of plan development for the various disciplines involved, including roadway design, drainage design, structural design, traffic signal design, and lighting design performed by a subconsultant. Joe helped with construction support for this project.
07/15 - Ongoing	**I-49 LAFAYETTE CONNECTOR | LADOTD | Lafayette, LA** Lead Roadway Engineer. Joe's responsibilities include assisting with the delivery of Task 4 Geometrics, of a 15 task project that is being carried out with a team of 15 design firms. Task 4 involves the evaluation and recommendations for previously proposed geometry, (interchanges, frontage roads, intersections, horizontal, and vertical alignments, design vehicles and criteria, etc.). The project also evaluated new alternatives during the SEIS phase of the project, which included design & conceptual layout of a roundabout corridor, and various roundabout configurations including dogbone roundabouts and roundabout interchanges.

01/14 - 03/18	**LA 86 AT LA 320 ROUNDABOUT | LADOTD H.009142 | New Iberia, LA** Quality Control. Joe provided technical guidance during the plan development process, helping with constructability, quality control/quality assurance, and maintenance of traffic solutions.
05/12 - 08/17	**GOVERNMENT STREET ROAD DIET: STUDY THROUGH FINAL DESIGN | LADOTD | Baton Rouge, LA** Roadway Engineer. Joe's provided roadway engineering services for this project that rehabilitated and re-striped existing roadway from a four-lane section to a three-lane section (Road Diet). Restriping the roadway allowed the reclaimed pavement to be used for multi-modal and streetscape improvements. Bike lane improvements and vegetative median islands were added to the corridor and sidewalks were brought up to ADA compliance. This project included a single-lane roundabout with bypass lanes designed for the Lobdell Avenue intersection, complete street improvements, access management, and community enhancements.
04/11 - 06/15	**I-210: COVE LANE INTERCHANGE AND IMPROVEMENTS PROJECT | LADOTD | Lake Charles, LA** Assistant Project Manager and Lead Roadway Engineer. During the Stage 0 and IMR phases of the project, Joe developed 29 full interchange alternatives and coordinated with traffic engineers during the analysis and modeling efforts to modify the alternatives as needed to satisfy DOTD needs. In the environmental phase, he provided the exhibits and materials necessary to support the Environmental Assessment document. During the Preliminary and Final Design Phases of the project, he designed the horizontal geometry for the entire project, led the roadway design plan development efforts, and coordinated multiple disciplines including hydraulic analysis and design, striping and signing design, bridge and structural design, geotechnical design, and maintenance of construction, as well as ROW acquisition, Utility Coordination and Relocation, and implementing environmental commitments into the design. Joe was also involved with the development of the Transportation Management Plan, and the development and approval of several Special Provisions for the project. Lastly, he was heavily involved in the construction process, which included frequent trips to the project site, answering RFIs, and assisting LADOTD with maintaining the project schedule.
08/19 - Ongoing	**I-10/LOYOLA INTERCHANGE DESIGN-BUILD | LADOTD | New Orleans, LA** Lead Roadway Engineer. Joe serves as lead roadway engineer of this multimillion-dollar design-build project that will improve access and traffic operations to and around the new Northfield Terminal at the New Orleans International Airport. The project consists of a Diverging Diamond Interchange and flyover ramps leading to/from the Airport on the east side of the interchange.
11/10 - Ongoing	**NELSON ROAD EXTENSION AND BRIDGE | LADOTD | Lake Charles, LA** Project Manager. Joe served as Project Manager for the Environmental Assessment as well as the Preliminary and Final Design Phases of this project, that proposes to construct a new high-level bridge over Contraband Bayou. During the environmental phase, Joe coordinated all environmental tasks and developed the line and grade study, performed a vessel survey to better understand navigational requirements for the proposed bridge, assisted with development of the Section 404 and Section 10 permits (USACE and USCG), and coordinated the compilation of the entire EA document, which included three subconsultants. Joe also designed the horizontal and vertical geometry for the project and providing general oversight, guidance, and coordination of plan development for the various disciplines involved, including roadway design, drainage design, maintenance of traffic, bridge design, traffic signal design, railroad design, lighting design, and assisted District 07 with the coordination of utility impacts. Joe is currently providing roadway construction support for this project.
03/17 - 03/23	**PERKINS ROAD (SIEGEN TO PECUE) WIDENING TRAFFIC STUDY, ENVIRONMENTAL ASSESSMENT (EA), PRELIMINARY PLANS, FINAL PLANS AND RIGHT-OF-WAY MAPS | City of Baton Rouge Contract 12-CS-HC-0015 | Baton Rouge, LA** QC Manager. Under the MOVEBR Program, Stantec completed Final Plans for Perkins Road from Siegen Lane to Pecue Lane using MOVEBR design criteria. This two-lane to four-lane divided roadway widening project accommodates the increase in traffic and improves travel efficiency along this corridor by introducing access management principles which have been shown to increase capacity and safety. Partial median openings and u-turn movements with bulb outs were provided along the corridor. Stantec was responsible for all final design including roadway and traffic signal plans, subsurface drainage and culvert design, and wetlands permitting. Final plans for this project were completed in March of 2023.
04/15 - 06/18	**US 90 AT LA 318 INTERCHANGE DESIGN-BUILD PROJECT | LADOTD | St Mary Parish, LA** Lead Roadway Engineer. Project included upgrading the existing two-lane undivided roadway LA 318 to a two-lane divided roadway with a raised median, and constructing a new overpass bridge for US 90 over LA 318. This project also included a significant utility relocation coordination effort, as well as ROW acquisition (first for a Design-Build Project), and a Transportation Management Plan. Joe's duties included leading the effort for plan development of the various design units, development of the TMP, design of frontage road and ramp geometry, as well as construction support during the process.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**			
NAME	**Brian Johnson, PE**		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**19**
TITLE	**Principal, Bridge Division Leader**		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**5**
DEGREE(S) / YEARS / SPECIALIZATION	**MS | 2000 | Civil Engineering; BS | 1999 | Civil Engineering**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 31273 | LA | 9/30/2024**			
YEAR REGISTERED	**2004**	DISCIPLINE	**Civil Engineering**	

Contract role(s) / brief description of responsibilities	Brian brings over 24 years of engineering experience specifically related to structural projects and serves as the Structural Section Manager in the Baton Rouge office. His primary expertise lies in analysis, design, rating, inspection, and rehabilitation of bridges. Brian has managed bridge projects with a variety of structure types such as prestressed concrete girders, steel truss vertical lift bridges, long span steel trusses, horizontally curved steel plate girders, concrete box culverts, and retaining walls. He has overseen several NSBI bridge inspection projects and been involved in several hydraulic studies for bridge replacement projects in both Mississippi and Louisiana. Brian will serve as **QA/QC - BRIDGE** for this contract. **Brian meets the following Minimum Personnel Requirements (MPRs) as specified in the advertisement for this project: 4**
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).
08/14 - 07/19	**WEST PRIEN LAKE ROAD RELOCATION | LADOTD | Lake Charles, LA** Lead Structural Engineer. Brian was responsible for leading design and plan development efforts for a two-cell, 12-ft x 12-ft reinforced concrete box culvert. The culvert is 117-ft long supporting four travel lanes, a shared use path, and a sidewalk. An architectural railing was installed along the headwall length. Brian oversaw construction administration activities which included reviewing shop drawings, addressing contractor RFIs, and providing construction engineering.
04/11 - 03/15	**I-210: COVE LANE INTERCHANGE AND IMPROVEMENTS PROJECT| LADOTD H.010151 | Lake Charles, LA** Lead Structural Engineer. Brian managed the structural design of a single-span, 130-ft long, prestressed concrete girder bridge along I-210 over Cove Lane and twin concrete slab span bridges over Cline Canal. He provided construction support by reviewing shop drawings, addressing RFIs, attending weekly progress meetings, and performing construction engineering. All design was performed in accordance with AASHTO LRFD Bridge Design Specifications.
08/19 - Ongoing	**I-10/LOYOLA INTERCHANGE DESIGN-BUILD | LADOTD Contract No. H.011670 | New Orleans, LA** Lead Structural Engineer. Brian leads the structural design efforts of two new flyover ramps, one bridge widening, noise barriers, precast box culverts, roadway and pier protection barriers, and miscellaneous structural elements. During design, Brian orchestrated a series of meetings with the contractor, fabricators, vendors, and suppliers to optimize and streamline the design. He oversees construction support which includes shop drawing reviews, addressing RFIs, and providing construction engineering services.
07/15 - 06/18	**US 90 INTERCHANGE AT LA 318 DESIGN-BUILD | LADOTD | St. Mary Parish, LA** Structural QA/QC Manager. Brian served as the structural quality control manager for this design-build project which consisted of a new twin structure and a diamond interchange. This stretch of US 90 has been designated as the future I-49 corridor. The bridges consisted of LG-54 prestressed concrete girder spans with lengths up to 111-ft supported by multi-column concrete bents. Brian performed independent reviews of the reported designs and the proposed construction plans.
12/15 - Ongoing	**NELSON ROAD EXTENSION AND BRIDGE | LADOTD Contract No. H.005967 | Lake Charles, LA** Structural Engineer. Brian managed the bridge and structural design efforts from preliminary to final plans. He performed quality review of bridge design, plans, and specifications for this bridge extension to the surrounding roadway network. Project tasks included design of bridge superstructure, substructure including foundations, median barrier design, and as-designed load rating. Other design elements include navigational lighting bridge attachments and steel bracket light supports with concrete anchors to the bridge structure. Structural Design was performed in compliance with AASHTO LRFD Specifications. In addition, he led the inspection of an existing sign truss to ensure it could be reused for the current project. Brian is currently providing structural construction support for this project.
07/15 - 10/20	**I-10 ATCHAFALAYA CLEAN, PAINT & MISC. REPAIRS | LADOTD Contract No. H.009461 | St. Martin & Iberville Parishes, LA** Project Manager. Brian oversaw plan production, scheduling field activities, reviewing assessment reports, and construction support services. Project included developing repair and rehabilitation plans for approximately 18.5 miles of structure. Structural steel plate girder and prestressed concrete girder spans founded on multi-column concrete bents were the primary structure types. Repair solutions included concrete deck and barrier rail repairs, concrete and steel girder repairs, bridge bearing replacements, and painting existing structural steel.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**			
NAME	**Joey Lefante, PE, PTOE**	YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**15**	
TITLE	**Senior Associate, Traffic Engineer**	YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**0**	
DEGREE(S) / YEARS / SPECIALIZATION	**BS | 2008 | Civil Engineering**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 37244 | LA | 09/30/2024**			
YEAR REGISTERED: **2012**	DISCIPLINE: **Civil Engineering | PTOE #3560**			

Contract role(s) / brief description of responsibilities	Joey has over 15 years of experience working on major traffic projects, preparing feasibility studies and interchange modification reports, and leading improvements through plan design and signal construction. His experience using various analysis software packages, including TransCAD, Synchro, and VISSIM, allows him to determine innovative transportation solutions tailored to each individual situation. Joey will serve as **TRAFFIC QA/QC** for this contract. **Joey meets the following Minimum Personnel Requirements (MPRs) as specified in the advertisement for this project: 6**
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).
08/14 - Ongoing	**I-49 LAFAYETTE CONNECTOR | LADOTD | Lafayette, LA** Traffic Task Manager. Joey is responsible for coordination with DOTD traffic staff and managing analysis of various geometric design alternatives. This project includes a comprehensive Vistro model and additional analyses using TransCAD, VISSIM, and Sidra software packages. It follows the Access Justification Request (AJR) guidelines established by DOTD and FHWA. Joey has been involved in the Context Sensitive Solutions (CSS) process, attending community meetings. Feedback from the CSS process has informed changes to ramp layouts and interchange design and has enabled Stantec to redesign several key elements to emphasize urban design principles, including pedestrian and bicycle accommodations. Joey is responsible for documenting the project to follow DOTD Traffic Engineering Process and Report (TEPR) Guidelines.
08/14 - 08/19	**W. PRIEN LAKE ROAD RELOCATION | LADOTD | Lake Charles, LA** Lead Traffic Engineer. Joey led traffic services on this project that featured a new signalized intersection at the relocated roadway and Nelson Rd., which required Stantec to develop traffic signal warrants, signal timing analyses and signal plans. Since the improvements impacted certain areas near the Nelson Rd. Interchange at I-210, Stantec developed a Level 2 TMP document. This project improved traffic flow in this very congested area of Southwest Lake Charles.
04/11 - 06/15	**I-210 / COVE LANE INTERCHANGE AND ROUNDABOUT | LADOTD | Lake Charles, LA** Lead Traffic Engineer. Joey developed an Interchange Justification Report (IJR) for I-210 between Cove Lane and Nelson Road interchanges on Port of Lake Charles property. He developed peak hour traffic volumes for 28 possible design alternatives, which took into account and accommodated for all future developments in the area, including the Nelson Road Bridge over Contraband Bayou and the Ameristar Casino and Hotel development north of I-210. Joey coordinated the collection of traffic counts and performed field calibration of the traffic models by collecting data such as queues and travel times. Once the alternatives were narrowed down to the final, Joey performed HCS and SIDRA analyses on over 50 locations per alternative. The recommended alternative included innovative interchange configurations including roundabout ramp terminals at Cove Lane and a Diverging Diamond Interchange (DDI) at Nelson Road.
01/12 - 12/17	**GOVERNMENT STREET ROAD DIET: STUDY THROUGH FINAL DESIGN | LADOTD | Baton Rouge, LA** Lead Traffic Engineer. Joey served as Traffic Analyst responsible for examining improvements to increase safety and access management on Government Street between I-110 and Jefferson Highway. Stantec evaluated traffic data, developed conceptual alternatives, and accounted for the LADOTD Complete Street Policy. Joey collected traffic data and developed models in VISSIM, Synchro, and SIDRA to analyze different operational improvements alternatives. Joey also prepared materials for and participated in public meetings under the DOTD public involvement process. Joey also prepared permanent and temporary signal plans.
05/13 - 03/19	**ESSEN LANE WIDENING | LADOTD | Baton Rouge, LA** Lead Traffic Engineer. Joey was responsible for traffic signal plans for four intersections along Essen Lane that were impacted by the widening. Traffic signal plans consist of providing all new traffic signal equipment along with fiber optic communications between the traffic signals. Multiple site visits were held to ensure feasibility of traffic signal equipment locations and avoid interference with utilities. Plans were developed according to the latest MUTCD, DOTD and City of Baton Rouge Standards and Specifications. This project required coordination with Stantec's Roadway group, DOTD, and the City of Baton Rouge.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**			
NAME	**Mary Frances O'Rourke, PE**		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**13**
TITLE	**Roadway Engineer**		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**0**
DEGREE(S) / YEARS / SPECIALIZATION	**BS | 2012 | Civil Engineering**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 41444 | LA | 09/30/2025**			
YEAR REGISTERED	**2017**	DISCIPLINE	**Civil Engineering**	

Contract role(s) / brief description of responsibilities	Mary's roadway engineering experience includes preparing roadway plans, quantity calculations, hydraulic analysis, striping and signing design, coordination of utility relocation for design-build projects, and geometric design such as horizontal and vertical alignments for a variety of projects in Louisiana. Mary is knowledgeable in a number of software programs including Microstation, InRoads and SignCad. She has also assisted in the design of roundabouts, interchanges, and realignments of urban roadways. Mary will serve as **ROADWAY/DRAINAGE DESIGN - TASK LEAD** for this contract.
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).
07/14 - 06/16	**US 79 BYPASS AT LA 9 ROUNDABOUT | LADOTD | Claiborne Parish, LA** Roadway Engineer. Project replaced a signalized intersection with a roundabout while maintaining traffic. Mary's responsibilities included managing plan development, client coordination, and the design of all areas of plan development including horizontal and vertical alignments, earthwork modeling, drainage design, signing and striping layout, sequence of construction which required three detour roads and a temporary subsurface drainage system, quantity calculations, and cost estimate for the construction.
05/12 - 12/21	**GOVERNMENT STREET ROAD DIET: STUDY THROUGH FINAL DESIGN | LADOTD | Baton Rouge, LA** Roadway Engineer. Mary designed bike lane facilities and signing/striping layout for this project to upgrade a four-mile portion of Government Street which included converting the signalized intersection at Government St. and Lobdell Ave. to a roundabout. She assisted with designs/plan development including typical sections, plan sheets, geometric details, signing and striping, and sequence of construction. Mary also calculated quantities, developed the cost estimate for construction, and provided construction support. Mary led the signing and striping plans for the roundabout at Lobdell, including shared use paths.
07/15 - Ongoing	**I-49 LAFAYETTE CONNECTOR | LADOTD | Lafayette, LA** Roadway Engineer. Mary is responsible for developing permanent interchange and ramp terminal signage concepts of the five-and-a-half-mile urban corridor, which includes segments of at-grade and elevated mainline, parallel frontage roads, urban interchanges, slip ramps, and connection/modifications to the existing roadway network. Mary is also assisting with the geometric roadway designs, quantity and cost estimating, drainage designs, and MOT concepts.
07/15 - 06/18	**US 90 AT LA 318 INTERCHANGE DESIGN-BUILD | LADOTD | St. Mary Parish, LA** Roadway Engineer. Mary assisted with the plan development of this project which constructed a diamond interchange with frontage roads to replace the current, at-grade, signalized intersection of US90 and LA 318. This included developing horizontal and vertical alignments, drainage design, signing and striping design, maintenance of traffic design, and quantity calculations. Mary also coordinated with utility companies for all required utility relocations on the project, as well as LADOTD Headquarters and the District office to ensure the utilities were relocated in a timely manner to mitigate utility conflicts with the roadway construction.
01/18 - Ongoing	**DIJON DRIVE PHASE I & PHASE II | City of Baton Rouge | Baton Rouge, LA** Roadway Engineer. Stantec designed this roadway on new alignment for the City of Baton Rouge as an access roadway to the new hospital. This fast-paced project includes a four-lane divided roadway on new alignment, sanitary sewer force main, subsurface drainage, signalization, and off-site intersection improvements. Mary's responsibilities include designing the signing and striping layout, calculating quantities to develop a construction cost estimate, and assisting with plan development to produce typical section sheets, plan and profile sheets, summary of quantity sheets, drainage map sheets, geometric detail sheets, signing and striping sheets, and suggested sequence of construction sheets. Mary provided construction support for Dijon Phase I and is currently providing construction support for Phase II.
10/17 - 05/22	**NELSON ROAD EXTENSION AND BRIDGE | LADOTD | Lake Charles, LA** Lead Roadway Engineer. Mary was responsible for the geometric design which included an at-grade railroad crossing, roadway modeling, drainage design, signing and striping, joint layout, and sequence of construction. Mary also assisted with the NEPA Environmental Assessment process and coordination between all stakeholders and is currently providing roadway construction support for this project.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**		
NAME	**Michael Neumann, PE**	YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**9**
TITLE	**Roadway Engineer**	YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**0**
DEGREE(S) / YEARS / SPECIALIZATION	**BS | 2015 | Civil Engineering**		
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 45396 | LA | 9/30/2025**		
YEAR REGISTERED	**2021**	DISCIPLINE	**Civil Engineering**

Contract role(s) / brief description of responsibilities	Michael has nine years of experience in designing subsurface and open channel drainage systems, roadway geometry through intersections, and striping plans along a major corridor. His work has encompassed both improvements to existing roadways and roadways on new alignments. Michael has also had a hand in analyzing existing conditions for a high-profile rehabilitation of an existing roadway. He has had both governmental and private client experience in his projects. Michael is familiar with technical programs including: MicroStation, AutoCAD, ArcGIS, InRoads, AutoTURN, StormCAD, and HYDR2009. Michael will perform **ROADWAY/DRAINAGE DESIGN** for this contract.
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).
06/17 - Ongoing	**I-49 LAFAYETTE CONNECTOR | LADOTD | Lafayette, LA** Roadway Engineer. Michael is responsible for developing cost estimates for various alternatives, creating public meeting exhibits, attending and participating in public meetings, horizontal and vertical geometry, project organization, and modeling and cross-section development. This route will provide the final nationwide link of I-49 by connecting the existing I-49/I-10 interchange to the proposed I-49/US 90 interchange. For the Comprehensive Stage 0 and Environmental Study, Stantec leads the traffic study and impacts effort along with development of an implementation plan and strategy.
05/15 - 12/17	**GOVERNMENT STREET ROAD DIET: STUDY THROUGH FINAL DESIGN | LADOTD | Baton Rouge, LA** Engineer Intern. Michael provided analysis of existing project conditions through field work. Michael also provided recommendations to bring conditions up to current ADA standards. Through public meetings held by LADOTD, he met with residents and business owners impacted by the project. Michael also produced construction plans as well as exhibits for public information meetings. This project included a single-lane roundabout with bypass lanes at the Lobdell Ave. intersection.
08/19 - Ongoing	**I-10/LOYOLA INTERCHANGE DESIGN-BUILD | LADOTD Contract No. H.011670 | New Orleans, LA** Roadway Engineer for this multi-million-dollar design-build project that will improve access and traffic operations to and around the new Northfield Terminal at the New Orleans International Airport. The project consists of a Diverging Diamond Interchange in addition to flyover ramps leading to/from the Airport on the east side of the interchange. Michael modeled the cross sections in InRoads and calculated earthwork quantities. He also designed the subsurface drainage systems along Loyola/Airport Access Road.
10/17 - Ongoing	**NELSON ROAD EXTENSION AND BRIDGE | LADOTD | Lake Charles, LA** Roadway Engineer. This project provides a crucial link to downtown Lake Charles and the Port of Lake Charles by extending Nelson Road over Contraband Bayou to West Sallier Street. Stantec has led the design effort for this new, high-level bridge (56-ft. clearance) and approaches over the navigational channel of Contraband Bayou. Michael assisted with the NEPA Environmental Assessment process and coordination between stakeholders, led the drainage design and roadway modeling efforts, and assisted with plan development. He also assisted with drainage and earthwork design. Michael is currently providing roadway construction support for this project.
06/20 - 03/23	**PERKINS ROAD (SIEGEN TO PECUE) WIDENING TRAFFIC STUDY, ENVIRONMENTAL ASSESSMENT (EA), PRELIMINARY PLANS, FINAL PLANS AND RIGHT-OF-WAY MAPS | City of Baton Rouge | Baton Rouge, LA** Drainage Design Engineer. Under the MOVEBR Program, Stantec is currently completing Final Plans for Perkins Road from Siegen Lane to Pecue Lane using MOVEBR design criteria. This two-lane to four-lane divided roadway widening project accommodates the increase in traffic and improves travel efficiency along this corridor by introducing access management principles which have been shown to increase capacity and safety. Partial median openings and u-turn movements with bulb outs are being provided along the corridor. Michael led the design of five subsurface drainage systems, culvert design, and the drainage report.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**			
NAME	**Hannah Krebs, PE**	YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**9**	
TITLE	**Roadway Engineer**	YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**0**	
DEGREE(S) / YEARS / SPECIALIZATION	**BS | 2017 | Civil Engineering**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 45917 | LA | 3/31/2024**			
YEAR REGISTERED	**2021**	DISCIPLINE	**Civil Engineering**	
Contract role(s) / brief description of responsibilities	Hannah has nine years of experience in design and plan development of interstate, arterial, and collector facilities, including existing and new alignment locations. She also has experience with the design of intersection improvements for both urban and rural projects. Hannah is specifically experienced in roadway design, environmental assessments and temporary traffic control plans. Hannah will perform **ROADWAY/DRAINAGE DESIGN** for this contract.			

Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc.
06/17 - Ongoing	**I-49 LAFAYETTE CONNECTOR | LADOTD Contract No. H.004273.5 | Lafayette, LA** Roadway Engineer. Hannah is responsible for developing cost estimates for various alternatives, creating public meeting exhibits, attending and participating in public meetings, developing geometry for the roundabout corridor alternative, C3, and project organization. She also developed a Conceptual Maintenance of Traffic Report and exhibits. This route will provide the final nationwide link of I-49 by connecting the existing I-49/I-10 interchange to the proposed I-49/US 90 interchange. For the Comprehensive Stage 0 and Environmental Study, Stantec leads the traffic study and impacts effort along with development of an implementation plan and strategy.
11/15 - 12/17	**GOVERNMENT STREET ROAD DIET: STUDY THROUGH FINAL DESIGN | LADOTD | Baton Rouge, LA** Engineer Intern. Hannah provided analysis of existing project conditions through field work. She helped in providing recommendations to bring conditions up to current ADA standards. She met with residents and business owners impacted by the project at public meetings held by LADOTD. Hannah also assisted with construction plans as well as exhibits for public information meetings. This project included a single-lane roundabout with bypass lanes at the Lobdell Ave. intersection.
11/15 - 8/19	**W. PRIEN LAKE ROAD RELOCATION | LADOTD | Lake Charles, LA** Engineer Intern. Hannah assisted with the Preliminary and Final Design Phases of this project, that proposed to realign W. Prien Lake road for approximately 1.4 miles to improve interchange operations at I-210 and Nelson Road. This project included a multi-lane roundabout and a large drainage structure improvement.
09/18 - Ongoing	**I-10/LOYOLA INTERCHANGE DESIGN-BUILD | LADOTD Contract No. H.011670 | New Orleans, LA** Roadway Engineer. Hannah is responsible for creating traffic control plans and modifying as needed during construction. This is a multi-million dollar project that will improve access and traffic operations to and around the new Northfield Terminal at the New Orleans International Airport. The project consists of a Diverging Diamond Interchange, in addition to flyover ramps leading to and from the Airport on the east side of the interchange.
06/20 - 03/23	**PERKINS ROAD (SIEGEN TO PECUE) WIDENING TRAFFIC STUDY, ENVIRONMENTAL ASSESSMENT (EA), PRELIMINARY PLANS, FINAL PLANS AND RIGHT-OF-WAY MAPS | City of Baton Rouge | Baton Rouge, LA** Roadway Engineer. Hannah's responsibilities included final plan development, geometric design, and traffic control plans. Under the MOVEBR Program, Stantec completed Final Plans for Perkins Road from Siegen Lane to Pecue Lane using MOVEBR design criteria. This 2-lane to 4-lane divided roadway widening project accommodates the increase in traffic and improves travel efficiency along this corridor by introducing access management principles which have been shown to increase capacity and safety. Partial median openings and u-turn movements with bulb outs are being provided along the corridor. Stantec is responsible for all final design including roadway and traffic signal plans, subsurface drainage and culvert design, and wetlands permitting. Hannah produced the plan set that was submitted with the wetlands permit application.
06/17 – 06/21	**NELSON ROAD EXTENSION AND BRIDGE | LADOTD | Lake Charles, LA** Engineer Intern. Hannah was responsible for organizing and completing a vessel survey during the Environment Assessment phase. Vessel owners were contacted to determine a bridge clearance business impact to a local shipyard. Hannah also assisted in the vertical profile design, drainage design, template design, and plan preparation for the preliminary submittal. The Nelson Road extension over Contraband Bayou will connect the community of Lake Charles and provide an alternate route to alleviate traffic from the interstate system.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**			
NAME	**John Krebs, PE**		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**11**
TITLE	**Senior Bridge Engineer**		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**4**
DEGREE(S) / YEARS / SPECIALIZATION	**MS | 2008 | Civil Engineering; BS | 2007 | Civil Engineering**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 37259 | LA | 9/30/2024**			
YEAR REGISTERED	**2012**	DISCIPLINE	**Civil Engineering**	

Contract role(s) / brief description of responsibilities	John has 15 years of engineering experience providing engineering design and load ratings for bridges and interchanges for LADOTD, MDOT, and KYTC. His primary expertise lies in the engineering analysis and design of a variety of structure types such as prestressed concrete girders, reinforced concrete substructure elements, and retaining walls. He has been heavily involved in the inspection and load rating of existing bridges in both Louisiana and Mississippi. John has an excellent working knowledge of AASHTO LRFD and the LADOTD Bridge Design Manual. He is proficient in several commercial software packages including AASHTOWare BrR, RC-Pier, CONSPAN, MDX, and STAAD. John will serve as **BRIDGE INSPECTION + DESIGN + LOAD RATING - TASK LEAD** for this contract. **John meets the following Minimum Personnel Requirements (MPRs) as specified in the advertisement for this project: 4**
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).
04/11 - 03/15	**I-210: COVE LANE INTERCHANGE AND IMPROVEMENTS PROJECT| LADOTD H.010151 | Lake Charles, LA** Project Engineer. John was responsible for the design and plan development of three bridges and an MSE wall system load transfer platform. The bridge along I-210 consists of a single, 130-ft-long, LG-54 prestressed concrete girder span founded on true abutments (spread footings). The remaining bridges consist of concrete slab spans founded on concrete pile bents. All design was performed in accordance with AASHTO LRFD Bridge Design. This project received the Highways/Bridges: Award of Merit from the Engineering News Record for Texas and Louisiana in October 2016.
07/15 - 06/18	**US 90 INTERCHANGE AT LA 318 DESIGN-BUILD | LADOTD | St. Mary Parish, LA** Structural Engineer. This stretch of US 90 has been designated as the future I-49 corridor. The bridges consisted of LG-54 prestressed concrete girder spans with lengths up to 111-ft supported by multi-column concrete bents. John assisted in the proposal development by performing preliminary designs of the major structural elements and later managed the construction support efforts.
12/15 - Ongoing	**NELSON ROAD EXTENSION AND BRIDGE | LADOTD Contract No. H.005967 | Lake Charles, LA** Structural Engineer. John worked on the bridge and structural design efforts during preliminary plans. Project tasks included preliminary design of bridge superstructure, substructure including foundations, median barrier design, and as-designed load rating. Other design elements include navigational lighting bridge attachments and steel bracket light supports with concrete anchors to the bridge structure. Structural Design was performed in compliance with AASHTO LRFD Specifications. In addition, he completed the vessel study report detailing the expected water-borne vessel traffic and establishing the need for pier protection structures. John will also be assisting with structural construction support for the project.
03/20 - 10/22	**LA 121: CALCASIEU RIVER BRIDGES | LADOTD Contract No. H. 009498 | Hineston, LA** LADOTD Bridge Task Manager. John was responsible for the independent design and plan review of the three LA 121 bridges. Bridge design items included reinforced concrete deck, LG-36 prestressed concrete girders, steel reinforced elastomeric bearing pads, and reinforced concrete end bent and intermediate bent caps. John also managed plan changes as well as quantity input into the AASHTOWare Project database. In addition to design, John updated the internally-cured concrete special provision for colloidal nano silica. The three bridges consisted of a total of five three-span deck units, and a testing scheme was noted in the plans applying the updated special provision.
11/22 - Ongoing	**SR 16/SR 149 FLOODWAY CHANNEL YAZOO RIVER (BRIDGE NOS. 210.9, 211.1, 211.8) | MDOT | Yazoo City, MS** Senior Project Engineer. John is responsible for the analysis, design, and plan development for three bridges crossing the floodway channel of the Yazoo River. Bridge No. 210.1 consists of three 100-ft, prestressed, FIB 45 spans supported by reinforced concrete bent caps on steel pipe piles. Bridge 211.1 consists of a skewed, 928-ft, three-span continuous steel plate I-girder unit supported by reinforced concrete caps on steel pipe piles for end bents and reinforced concrete caps on drilled shafts for intermediate bents. Bridge 211.8 consists of identical components to Bridge 210.1 and is also in a horizontal curve. As the senior project engineer, John is the technical lead, QC/QA for the design elements and plan development, and coordination with MDOT.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**		
NAME	**Maggie Ye, PE**	YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**3**
TITLE	**Structural Engineer**	YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**4**
DEGREE(S) / YEARS / SPECIALIZATION	**MS | 2016 | Civil Engineering; BS | 2013 | Civil Engineering**		
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 44061 | LA | 3/31/2024**		
YEAR REGISTERED: **2019**	DISCIPLINE: **Civil Engineering**		

Contract role(s) / brief description of responsibilities	Maggie assists the project manager with bridge designs, compiling bridge plans, and QC/QA of load rating models and reports. She also helps EIs in developing load rating models. Maggie will perform **BRIDGE INSPECTION + DESIGN + LOAD RATING** for this contract. **Maggie meets the following Minimum Personnel Requirements (MPRs) as specified in the advertisement for this project: 5**
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).
03/20 - Ongoing	**MISSISSIPPI STATEWIDE COMPLEX BRIDGE INSPECTIONS & LOAD RATINGS | MISSISSIPPI OFFICE OF STATE AID ROAD CONSTRUCTION | STATEWIDE, MS** Bridge Engineer. Maggie's main task is to QC and QA the load rating models and reports that are developed by the EIs. She uses Bridge Rating and RC-Pier load rating software to review different types of bridges including timber bridges, box culvert bridges, slab spans, prestressed beams etc. She also reviews the hand calculation of LLDF for culvert box, dead load input for substructure, and timber piles' load rating factors.
10/21 - 04/22	**TRUSS BRIDGE INSPECTIONS AND LOAD RATING | MDOT | STATEWIDE, MS** Bridge Load Rater. Maggie used the existing plans and site measurements to load rate the complex truss bridge. The load rating consisted of rating truss members, gusset plates, stringers, and floor beams. She prepared the load rating reports including detailed truss rating results in accordance with client's requirement.
03/20 - Ongoing	**I-10 LOYOLA DESIGN-BUILD INTERCHANGE | LADOTD | Kenner, LA** Bridge Engineer. Maggie performed design on the LU and LG prestressed concrete girders, concrete decks, substructure units, and drainage system for the steel trapezoidal box girders. She assisted with plan development on several design units. Maggie's responsibilities include reviewing shop drawings, addressing RFIs, and performing construction engineering. Currently, Maggie is responsible for performing load rating and developing reports on the two ramps and a bridge widening.
11/22 - Ongoing	**SR 16/SR 149 FLOODWAY CHANNEL YAZOO RIVER (BRIDGE NOS. 210.9, 211.1, 211.8) | MDOT | Yazoo City, MS** Bridge Engineer. Maggie is responsible for the design and plan development for three bridges crossing the floodway channel of the Yazoo River. Bridge No. 210.1 consists of three 100-ft prestressed FIB 45 spans supported by reinforced concrete bent caps on steel pipe piles. Bridge No. 211.1 consists of a skewed, 928-ft, three-span continuous steel plate girder bridge supported by concrete caps on steel pipe piles at the end bents and drilled shafts at the intermediate bents. Bridge No. 211.8 consists of identical components to Bridge No. 210.1 but is in a horizontal curve. As the design engineer, Maggie performed designs, oversaw plan development, and is currently responsible for reviewing shop drawings and contractor submittals.
05/20 - Ongoing	**SR 27 OVER LITTLE WHITE OAK CREEK | MDOT | Copiah County, MS** Design Manager. Maggie is responsible for the design and plan development for a three-span (60-100-60-ft) prestressed FIB 36 girder bridge. Substructure units consist of concrete caps founded on steel pipe piles. A detour bridge is being constructed to minimize traffic impacts during construction. She performed quality control checking of designs, oversaw plan development, and is currently responsible for reviewing shop drawings and contractor submittals.
12/20 - Ongoing	**SR 601/I-10 INTERIM INTERCHANGE | MDOT | Harrison County, MS** Design Manager. This project consists of updating a previous design to conform to current design and construction specifications. Tasks include eliminating a portion of the original project, adding stay-in-place forms to girder designs, updating plans and references, and develop load ratings for seven bridges. Design is in accordance with AASHTO LFD. Maggie is responsible for overseeing design activities and plan development and performing QC on designs and load ratings. Structures include prestressed concrete AASHTO and BT girders, structural steel plate girders, and complex substructure units.

02/19 - 08/19	**LOAD TESTING OF BERWICK BAY BRIDGE AND LA-1 BRIDGE | LADOTD | Statewide, LA** Site Engineer. Maggie assisted the project engineer to installing sensors on the bottom of the bridge deck and connecting the sensors to computers. She guided the loaded truck on the bridge and analyzed the collected deflections from sensors. She gained on-site experience as well as knowledge that the load rating results were much more conservative than the load testing results.
02/19 - 08/19	**27 COMPLEX OFF-SYSTEM BRIDGES RATING AND EVALUATION | LADOTD H.009859.5 | Statewide, LA** Structural Engineer. This project consisted of load rating 27 complex off-system bridges in accordance with LADOTD Policies and Guidelines for Bridge Rating and Evaluation. The bridge types comprised ferry-toll, pontoon, steel I-beam, plate girder swing spans, plate girder continuous spans, plate girder bascule spans, low truss swing spans, plate girder swing spans, and steel box girder. Maggie's responsibilities included reviewing the as-built drawings of the bridges and determining the appropriate load rating method, developing the load rating models, and preparing the load rating reports.
02/19 - 08/19	**LOAD RATING OF 396 OFF SYSTEM BRIDGES | LADOTD H.012485.5 | Statewide, LA** Bridge Load Rater. Load rating of 396 bridges in accordance with LADOTD Policies and Guidelines for Bridge Rating and Evaluation. Bridge types comprised cast in place concrete slab spans, precast concrete slab spans, prestressed concrete girders, steel plate-girders, in addition to RC box and arch culverts. Substructures comprised various components including reinforced concrete caps, timber caps, timber piles, and steel H piles. Maggie participated in performing the load rating analysis for the bridges and preparation of the load rating reports.
11/19 - 04/20	**US-90 MACARTHUR INTERCHANGE PHASE II | LADOTD | Jefferson, LA** Bridge Designer. This project consisted of designing two access ramps to/from the service roads to the elevated viaduct. Ramps structures consisted of complex structural elements including precast- prestressed U-shaped girders and LG-girders, inverted-T piers, complex columns, and foundations. Maggie's responsibilities included performing the final design of the superstructure including the deck, prestressed LU girders and LG girders for the 22 spans off-ramp and the 24 spans on-ramp along with preparation of the plans.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**			
NAME	**Kunal Malpani, PE**		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**10**
TITLE	**Structural Engineer**		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**0**
DEGREE(S) / YEARS / SPECIALIZATION	**MS | 2012 | Civil Engineering; BS | 2010 | Civil Engineering**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 43016 | LA | 3/31/2025**			
YEAR REGISTERED	**2018**	DISCIPLINE	**Civil Engineering**	

Contract role(s) / brief description of responsibilities	Kunal has 10 years of engineering experience with an emphasis on structural projects. His primary focus has been in the analysis, design, rating, and inspection of a variety of bridge types including prestressed concrete girders, structural steel plate girders, concrete slab spans, multi-column concrete bents, and pile bents. He is proficient in commercial software packages such as AASHTOWare BrDR, RC-Pier, CONSPAN, MDX, and STAAD. Kunal has also been involved in the design of highway sign structures and reviewing structural shop drawings. Kunal will perform **BRIDGE INSPECTION + DESIGN + LOAD RATING** for this contract. **Kunal meets the following Minimum Personnel Requirements (MPRs) as specified in the advertisement for this project: 5**
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).
01/19 - Ongoing	**I-10 LOYOLA DESIGN-BUILD INTERCHANGE | LADOTD | Kenner, LA** Bridge Engineer. Kunal performed design on the horizontally curved structural steel trapezoidal girders, substructure units, roadway barriers, sign structures and foundations, noise barrier, and miscellaneous structural components. He assisted with plan development on several design units. Additional responsibilities include reviewing shop drawings, addressing RFIs, and performing construction engineering. Currently, Kunal is responsible for performing QC on the load rating reports.
02/19 - Ongoing	**LA 12 BRIDGE REPLACEMENTS | LADOTD | Calcasieu Parish, LA** Project Engineer. As part of value engineering, Stantec is responsible for designing and detailing the replacement of six structurally deficient bridges along LA State Route 12 in Calcasieu Parish. The project is being executed in two phases of construction, with the first phase of widening to one side in order to accommodate two lanes of traffic, and a second phase to complete the reconstruction. This would allow structure replacement without the requirement of temporary bridges. All bridges consist of LA Quad beam girder spans supported on pile bents. As the project engineer, Kunal is responsible for overseeing all superstructure and substructure design.
06/16 - Ongoing	**MISSISSIPPI STATEWIDE COMPLEX BRIDGE INSPECTIONS & LOAD RATINGS | MISSISSIPPI OFFICE OF STATE AID ROAD CONSTRUCTION | STATEWIDE, MS** Load Rating Engineer and Inspection Team Leader. This project includes inspection and load rating of over 100 off-system bridges in 17 different Mississippi Counties. Inspections and load ratings are performed in accordance with current NBIS and procedures as outlined in the AASHTO MBE. Structure types include steel trusses, structural steel plate girders, steel railroad flat cars, reinforced concrete girders and slabs, reinforced concrete box culverts, and masonry arches. Kunal is responsible for field inspections, load ratings, inspection reports, and QC/QA on load ratings.
01/17 - 10/18	**LOAD RATING AND POSTING OF 110 ON-SYSTEM BRIDGES | LADOTD | STATEWIDE, LA** Load Rating Engineer. Project involved the load rating & posting of 110 on-system bridges. Bridges are located throughout the state and were load rated in accordance with LADOTD and AASHTO specifications. AASHTOWare BrR, CSI Bridge, and RC-Pier were used to determine rating factors and posting requirements. Kunal was responsible for developing load rating models and performing analyses. His main focus is a bridge structure on I-10 over city streets in New Orleans that is approx. 18,000-ft long with complex geometry and span arrangements.
07/15 - 06/18	**US 90 (FUTURE I-49) AND LA 318 INTERCHANGE DESIGN BUILD | LADOTD | St. Mary Parish, LA** Structural Design Engineer. Kunal served as a design engineer for the twin bridges. Each bridge consists of LG-54 prestressed concrete (PSC) girder spans on multi-column concrete bents and concrete wall piers. His responsibilities included performing design, as-designed load rating, reviewing shop drawings, and addressing construction submittals including RFIs and NCRs.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**			
NAME	**Bryan Mason**	YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**2**	
TITLE	**Senior Project Manager**	YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**20**	
DEGREE(S) / YEARS / SPECIALIZATION	**MA | 2003 | Anthropology; BA | 1996 | Anthropology**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**NA**			
YEAR REGISTERED	**NA**	DISCIPLINE	**NA**	

Contract role(s) / brief description of responsibilities	Bryan has over 22 years of environmental and project management experience with a wide variety of project and client types. His projects range from Phase I Environmental Site Assessments through remediation. Bryan assisted in the completion of SWPPPs, provides field inspection and mapping assistance for SPCC plans; completes the closure of sites within the Voluntary Cleanup Program and Leaking Petroleum Storage Tank Program in the TCEQ. Complex documentation projects have included work for the Texas Risk Reduction Program (TRRP) rules, Affected Property Assessment Reports, and Municipal Setting Designations. Bryan also has over 19 years of NEPA experience and has managed several large-scale survey and permitting projects. He has directed field projects for archaeological survey, testing, and excavation projects (Phases I, II, and III); completed USACE Section 404 permitting; assisted clients in siting of pipelines and facilities; written NEPA reports including Environmental Impact Statements and Environmental Assessments; and provided task management and project controls of large Federal Energy Regulatory Commission (FERC) projects. He has directed projects requiring oversight by the Texas Commission on Environmental Quality (TCEQ), USACE, and the U.S. Fish and Wildlife Service. Bryan will serve as **PERMITTING SUPPORT** for this contract.
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “Designed drainage”, “designed girders”, “designed intersection”, etc.
11/23 - 01/24	**EAST KENTUCKY AVENUE WIDENING PROJECT | City of Ruston | Ruston, LA** Project Manager. Bryan oversaw the completion of a programmatic categorical exclusion document and permit application for USACE Vicksburg District.
03/17 - 05/20	**TEXAS CRUDE OIL LOADING TERMINAL | Enbridge | Brazoria County, TX** Project Manager. Bryan worked closely with Enbridge and managed a team to identify potential locations throughout southern Texas for a potential land-based oil terminal to support a future offshore terminal. He was instrumental in assisting to develop permitting timelines and cost estimates for various scenarios associated with the project. Bryan also managed the survey and reporting and supported Enbridge in permitting efforts for the ultimately identified project.
02/19 - 07/19	**33-MILE PIPELINE REPLACEMENT NATIONWIDE PERMIT | Koch | Nationwide** Project Manager. Bryan managed this project which began as a Nationwide Permitting project including wetland delineation and cultural resources surveys. He developed additional tasks to be completed for the project including a SWPPP and environmental inspections for the project construction.
03/19 - 05/20	**TEXAS CITY HYDROGEN PIPELINE | Air Products | Texas City, TX** Project Manager. Bryan worked with Air Products on routing selection and early permitting decisions for a 35 mile hydrogen pipeline from Baytown to Texas City, Texas. Once a project was identified, Bryan managed team of field staff and office support staff for the survey, reporting, and permitting (including a USACE Nationwide 12 permit) and was also an integral part of the client project team, participating in weekly project meetings, working directly with regulators, and developing project strategies.
02/14 - 08/16	**LIQUID NATURAL GAS TERMINAL AND PIPELINE | Sempra | Southwest, LA and Southeast, TX** Permitting Lead. Bryan managed the financial aspects of this large FERC project and served as field manager for the field crews completing surveys (wetland delineation and cultural resources) for the project. Bryan also directed the permitting through USACE New Orleans and Galveston Districts. During this project, Bryan assisted in identifying out of scope work to be completed for this project and worked with the client on developing appropriate budgets for this work.

FIRM EMPLOYED BY	**Stantec Consulting Services Inc.**		
NAME	**Derrick Goudeau, PE**	YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**6**
TITLE	**Senior ITS/Electrical Engineer**	YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**15**

DEGREE(S) / YEARS / SPECIALIZATION		**BS | 2003 | Electrical Engineering**	
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE		**PE No. 33288 | LA | 09/30/2025**	
YEAR REGISTERED	**2007**	DISCIPLINE	**Electrical and Computer Engineering**

Contract role(s) / brief description of responsibilities	Derrick has over 21 years of experience in the design and development of ITS and electrical power, lighting, control, and related systems. He has been responsible for the preparation of plans and specifications (design and development) of ITS, lighting and electric power engineering projects, from design to final construction inspection. Other design experience includes QC/QA review, calculations, data collection, and report preparation. During the construction phase, Derrick has provided CE&I services to support the owner and verify general conformance with the design including review of shop drawing and equipment submittals, respond to request for information, review/prepare as-built drawings, and perform periodic inspection and final system acceptance. He is also well-versed in industry codes and standards, including the 2020 NEC (NFPA 70) and 2018 NFPA 70E in which he has recently completed training courses. Derrick will provide **LIGHTING SUPPORT** for this contract.
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “Designed drainage”, “designed girders”, “designed intersection”, etc.
04/23 - Ongoing	**I-12 TO BUSH LA 3241 (I-12 - LA 36) LIGHTING | LADOTD H.004957 | Lacombe, LA** Quality Control Reviewer. Derrick is providing detailed reviews of lighting design and construction plans for the updated I-12/LA-434 Interchange geometry, including a new roundabout on north end of the interchange. The lighting design also includes photometric analysis of existing to remain lighting system and recommendations for other lighting and electrical improvements.
06/18 - 02/20	**HARVESTON WAY | Burtville Development Corporation | Baton Rouge, LA** Engineer of Record (Lighting/Electrical). This roadway design project provides approximately 1.5 miles of new roadway as part of the East Baton Rouge Parish long-range improvement plan. The proposed urban collector extends from Bluebonnet drive to the future extension of University Club Drive (existing residential development) and includes a roundabout for access to future residential developments. Derrick designed the decorative LED lighting for both the roadway and pathways. He also provided engineering support during construction.
03/13 - 05/15	**I-210: COVE LANE INTERCHANGE AND IMPROVEMENTS PROJECT | LADOTD H.10151 | Lake Charles, LA** Engineer of Record for Lighting/Electrical. Derrick was the Engineer of Record for the lighting/electrical portion of the project (incorporated vie plan change) and provided CE&I services through construction. Project limits are from the East foot of the I-210 Lake Prien Bridge through the I-210/Cove Lane Interchange (approx. 1 mile of I-210). Project required frequent field inspection for changing site conditions, coordination with LADOTD Project Engineer and Contractor, and design adjustments for compatibility with Contractor’s sequence of construction.
01/15 - Ongoing	**I-49 LAFAYETTE CONNECTOR | LADOTD H.004273 | Lafayette, LA** Lighting Task Lead. This project will extend I-49 from the I-10 interchange 5 miles south to Kaliste Saloom Road along the existing US-165 alignment though urban sections of Lafayette. As task lead, Derrick is responsible for establishing lighting criteria and standards for the project through a Context Sensitive Solutions process which solicits feedback from agency stakeholders and the public. The project includes lighting for a wide range of classifications including interstate, freeway, collector, and local streets. He is also leading the preliminary photometric analysis for interim interchange improvement projects that will facilitate future phases on construction.
06/18 - 03/21	**STATE HIGHWAY 288 TOLL LANES | TxDOT - Houston District | Houston, TX** Engineer of Record (Lighting/Electrical). This P3 project will implement improved functionality over 10.3 miles along SH 288, from US 59 to the Harris/Brazoria County line at Clear Creek, by constructing new toll lanes. Derrick performed photometric analysis for the proposed and existing roadway in the ten-mile corridor and prepared plans for upgrading all of the existing high pressure sodium lighting to LED luminaires. The lighting system consisted of conventional light standards as well as high mast towers up to 175 ft. Derrick also provided technical support during construction.

FIRM EMPLOYED BY	**Vectura Consulting Services, LLC**				
NAME	**Sheelagh Brin Ferlito, PE, PTOE**			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**8**
TITLE	**Principal**			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/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	**Professional Engineer (Civil)**		
Contract role(s) / brief description of responsibilities	Brin will perform Traffic Control Design, Temporary Traffic Signal Analysis and Design Quality Control. Brin will serve as **TRAFFIC ENGINEERING TASK LEAD** for this contract. **Brin meets the Minimum Personnel Requirements (MPRs) #6.**				
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).				
09/20 - 12/21	**LA 30 ROUNDABOUTS AT TANGER I-10 | LADOTD H.010960.5 | Ascension Parish, LA** 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.				
07/21 - Ongoing	**EBR COMPUTERIZED TRAFFIC SIGNAL, PHASE VB | LADOTD AND CITY-PARISH OF BATON ROUGE H.007160 | Baton Rouge, LA** Task Leader 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 in accepting the manufactured poles. Brin along with the DOTD, City-Parish and the Contractor conducted field visits to confirm pole foundation locations.				
07/19 - Ongoing	**MOVEBR NEW CAPACITY PROJECTS PROGRAM MANAGEMENT | CITY OF BATON ROUGE | Baton Rouge, LA** Lead Traffic Engineer for the entire 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 - Ongoing	**BELLE CHASSE BRIDGE & TUNNEL REPLACEMENT PPP | LADOTD H.004791 | Belle Chasse, LA** 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 LADOTD.				
04/18 - 06/21	**4 ROUNDABOUT: US 171 AT BOONE ST. | LADOTD H.011909.5 | Vernon Parish, LA** Project Manager. 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.				
07/18 - 04/19	**LA 1 PEDESTRIAN CROSSWALK STUDY AND TRAFFIC / PEDESTRIAN SIGNAL DESIGN | LADOTD | West Baton Rouge, Addis, LA** Project Manager. 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 | LADOTD H.004791 | Slidell, LA** Project Manager. 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.				

MEETS MINIMUM LADOTD PERSONNEL REQ.

02/17 - 10/17	**STAGE 0 JUDGE TANNER BOULEVARD AT N. CAUSEWAY ROUNDABOUT STUDY | LADOTD | St. Tammany Parish, LA** Project Manager. 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	**STAGE 0 ROUNDABOUT STUDIES | LADOTD H.004490 | Lafayette Parish, LA** Project Manager. 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 analysis 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	**SIGNAL DESIGN FOR N. SHERWOOD FOREST DR. WIDENING PROJECT | LADOTD H.002301 | Baton Rouge, LA** 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. Brin 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	**CE&I FOR EBR TRAFFIC SIGNAL SYSTEMS JEFFERSON HIGHWAY CONSTRUCTION | EBR 03-TS-CI-0026 | Baton Rouge, LA** 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	**CE&I FOR EBR TRAFFIC SIGNAL SYSTEMS PHASE IV CONSTRUCTION | SPN 013-05-0043 | Baton Rouge, LA** 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	**JEFFERSON HWY. SIGNAL DESIGN | S.P. 700-99-0477 | Baton Rouge, LA** Project Engineer. Brin 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** Project Engineer. 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.
02/03 - 01/04	**EBR TRAFFIC SIGNAL SYSTEMS PHASES IV AND V | SPN 700-17-0172 | Baton Rouge, LA** Project Engineer for the design of 66 signalized intersections on eight arterials in Baton Rouge which included traffic data collection, traffic signal equipment, pedestrian crosswalk equipment, emergency vehicle and railroad preemption equipment, fiber interconnect equipment as well as traffic signal synchronization. Brin prepared traffic signal construction plans, estimated quantities, and specifications.

FIRM EMPLOYED BY	**Vectura Consulting Services, LLC**			
NAME	**Laurence Lambert, II, PE, PTOE, PTP**		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**8**
TITLE	**Principal**		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	**18**
DEGREE(S) / YEARS / SPECIALIZATION	**BS | 1997 | Civil Engineering; MS | 2010 | Civil Engineering; MBA (Transportation Focus) | 2010**			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE	**PE No. 29901 | LA | 3/31/2024**			
YEAR REGISTERED	**2001**	DISCIPLINE	**Professional Engineer (Civil)**	
Contract role(s) / brief description of responsibilities	Laurence will be responsible for TMP Quality Control. Laurence will perform **QA/QC - TMP** for this contract. **Laurence meets the Minimum Personnel Requirements (MPRs) #6.**			
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).			
04/18 - 12/21	**LA 30 ROUNDABOUTS AT TANGER I-10 GONZALES | LADOTD H.010960.5 | Ascension Parish, LA** Quality Control. 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.			
02/21 - 03/21	**I-10 ITS SCOTT TO LAKE CHARLES | LADOTD H.013256.5 | Southwest, LA** 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	**US 167: CAMELLIA BLVD – CHURCHILL DR PEDESTRIAN COUNT STUDY | LADOTD H.013716.5 | Lafayette, LA** Lead Traffic Engineer. 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 - Ongoing	**MOVEBR NEW CAPACITY PROJECTS PROGRAM MANAGEMENT | CITY OF BATON ROUGE | Baton Rouge, LA** Traffic Engineer. 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	**4 ROUNDABOUT: US 171 AT BOONE ST. | LADOTD H.011909.5 | Vernon Parish, LA** Quality Control. 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 | LADOTD | Baton Rouge, LA** 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 | LADOTD H.004791 | Slidell, LA** Traffic Engineer. 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.			

MEETS MINIMUM LADOTD PERSONNEL REQ.

10/17 - 10/18	**LA 182 (UNIVERSITY AVENUE) CORRIDOR PLANNING STUDY | LADOTD H.013025 | Lafayette, LA** 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.
01/17 – 07/17	**MINNESOTA PARK ROAD IMPROVEMENTS | RPC TASK ST-1.17 | Tangipahoa Parish, LA** 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.
09/16 - 04/17	**I-12 TO BUSH - LA 3241 (I-12 – LA 36) CORRIDOR STUDY | LADOTD H.004957.5 | St. Tammany Parish, LA** 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 | FHWA | Multiple States** Lead Traffic Engineer. 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	**STAGE 0 ROUNDABOUT STUDIES | LADOTD H.004490 | Lafayette Parish, LA** Traffic Engineer. 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	**STAGE 0 AND 1 STUDY I-49 INNER CITY CONNECTOR | LADOTD S.P. NO. 700-09-0171 | Shreveport, LA** Traffic Engineer. 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 | LADOTD | Baton Rouge, LA** Traffic Engineer. 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 | LADOTD | Baton Rouge, LA** 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.

FIRM EMPLOYED BY	**Vectura Consulting Services, LLC**			
NAME	**Reece Rodrigue, PE, PTOE, RSP1**		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**4**
TITLE	**Project Traffic Engineer**		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/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	**Professional Engineer (Civil)**	
Contract role(s) / brief description of responsibilities	Reece will serve as a Project Engineer for Traffic Control Design, Temporary Traffic Signal Analysis and Design. Reece will perform **TRAFFIC ENGINEERING** for this contract.			

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).
09/20 – 12/21	**LA 30 ROUNDABOUTS AT TANGER I-10 GONZALES | LADOTD H.010960.5 | Ascension Parish, LA** Project Engineer. 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.
04/21 - Ongoing	**MOVEBR DIRECT SELECT FOR TRAFFIC SIGNAL DESIGN | CITY OF BATON ROUGE | Baton Rouge, LA** Project Engineer. Reece is a project engineer for the design of traffic signal upgrades at 10 intersections. This projected 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 - Ongoing	**EBR COMPUTERIZED TRAFFIC SIGNAL, PHASE VB | LADOTD AND CITY-PARISH OF BATON ROUGE H.007160 | Baton Rouge, LA** Project Engineer. 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	**I-10 ITS SCOTT TO LAKE CHARLES | LADOTD H.013256.5 | Southwest, LA** Project Engineer. 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	**4 ROUNDABOUT: US 171 AT BOONE ST. | LADOTD H.011909.5 | Vernon Parish, LA** Project Engineer. 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.
04/20 - Ongoing	**BELLE CHASSE BRIDGE & TUNNEL REPLACEMENT PUBLIC-PRIVATE PARTNERSHIP PROJECT | LADOTD H.004791 | Belle Chasse, LA** Project Engineer. 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.

FIRM EMPLOYED BY	**Vectura Consulting Services, LLC**				
NAME	**Kristen Gahagan Farrington, PE, PTOE, RSP1**		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	**2**	
TITLE	**Project Traffic Engineer**		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/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	**Professional Engineer (Civil)**		
Contract role(s) / brief description of responsibilities	Kristen will serve as a Project Engineer for TMP. Kristen will perform **TRAFFIC ENGINEERING** for this contract.				
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	**MORGAN CITY SIDEWALKS & SHARED USE PATH | LADOTD H.013722 | Morgan City, LA** Lead Engineer. 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 - Ongoing	**BUS RAPID TRANSIT (BRT) IMPROVEMENT PROJECT | CP NO. 16 CI-US-0032 | Baton Rouge, LA** Project Engineer. 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	**DOWNTOWN TO SCOTLANDVILLE PARKWAY TRAIL SAFETY ENHANCEMENT STUDY | LADOTD H.013267 | Baton Rouge, LA** Project Engineer. Kristen was a project engineer for a design study to evaluate the recommended street crossing treatments of the trail at eight locations. 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 | CITY OF BATON ROUGE | Baton Rouge, LA** Project Engineer. 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.				
06/19 - 02/21	**US 167 IMPROVEMENTS STAGE 0 ELSIE STREET TO GILBERT STREET | LADOTD H.013459 | St. Landry Parish, LA** Project Manager. 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.				
06/19 - 02/21	**US 167 IMPROVEMENTS STAGE 0 ENOLA STREET TO ROSS ROAD | LADOTD H.013460 | Evangeline Parish, LA** Project Manager. 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.				

Section 17

GOVERNMENT STREET ROAD DIET
AND ROUNDABOUT AT LOBDELL AVE.

17. **Firm Experience:**

FIRM NAME	**Stantec Consulting Services Inc.**	PAST PERFORMANCE EVALUATION CATEGORY(IES)*	**Road, Traffic**
PROJECT NAME	**LADOTD RETAINER CONTRACT FOR TRAFFIC ENGINEERING ROAD MANAGEMENT**	FIRM RESPONSIBILITY (prime or sub?)	**Prime**
PROJECT NUMBER	**H.4400002787**	OWNER'S NAME	**Louisiana Department of Transportation and Development**
PROJECT LOCATION	**Statewide, Louisiana**	OWNER'S PROJECT MANAGER	**Joshua Harrouch, PE**
OWNER'S ADDRESS, PHONE, EMAIL	**1201 Capital Access, Baton Rouge, LA 70808 | 225-242-4640 | joshua.harrouch@la.gov**		
SERVICES COMMENCED BY THIS FIRM (MM/YY)	**02/13**	TOTAL CONSULTANT CONTRACT COST ($1,000's)	**$2,024**
SERVICES COMPLETED BY THIS FIRM (MM/YY)	**03/18**	COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM ($1,000's)	**$1,724**

Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.)

Under this retainer, Stantec designed four roundabout projects, including: Cleo Road (Pearl River), US 79 Bypass at LA 9 (Homer), LA 86 & LA 320 Roundabout (New Iberia) and LA 75 Roundabouts (Plaquemine). Stantec also designed the LA 447 / I-12 Interchange (Walker) under this contract.

TASK RELEVANCE:

- ☑ Roundabout Design & Plans (Single/ Multilane)
- ☑ Ramp Terminal Design
- ☑ Traffic Analysis
- ☑ Maintenance of Traffic/TMP
- ☑ Utility Conflicts Identified
- ☑ Quantities & Cost Estimates
- ☑ Quality Review

US 11 at Cleo Road: Stantec was chosen to perform the design and construction plans for the proposed single-lane roundabout at the un-signalized intersection. Because of the proximity to the interstate and truck-related businesses, the roundabout was designed to ensure that interstate-sized trucks can maneuver through and around the roundabout. To maintain all movements during construction of the roundabout, Stantec developed a maintenance-of-traffic plan that included the use of **runaround detours and temporary signalization** for US 11, as well as Cleo Road. While the initial intersection is a three-leg roundabout, Stantec designed a fourth leg for a future connection. The temporary and permanent designs considered the existing properties to avoid relocations or unnecessary impacts. As with all our projects, our team worked closely with DOTD to meet all project goals.

US 79 Bypass at LA 9 Roundabout: This project replaced an existing signalized intersection in Claiborne Parish with a single-lane roundabout. The roundabout improvement addressed safety and congestion issues at the existing intersection. The traffic control plan required for construction included three detour roads and **a temporary subsurface drainage system** to make room to construct the new intersection.

LA 86/320 Roundabout: Stantec provided the full design of the roundabout and developed detailed construction phasing plans using the latest LADOTD and FHWA guidance. The project included rural drainage design, utility coordination, joint layouts, graphical grades, maintenance of traffic with phased construction, diversions, detours, and striping and signing. The large farm vehicles and trailers that use the roads required special consideration in the **roundabout design to accommodate larger vehicle maneuvering**. Additionally, to address the concerns of the public, special consideration was made for the timing of construction in this heavily agricultural community by ensuring that sugarcane transport vehicles were not impeded during harvest season. Working closely with LADOTD to meet project goals and the needs of the roadway users, Stantec delivered the plans in less than two years, with construction lasting for about three years.

LA 447 / I-12 Interchange: This project improved the existing ramp terminal intersections for the diamond interchange at LA 447 and Interstate 12. All improvements were within the existing right-of-way, which saved DOTD time and money, and prevented property impacts to residents and business owners. Our design offset both roundabouts from the existing ramp terminal intersections maintaining traffic patterns and shortening the duration of construction. The multi-lane roundabout feature two circulating lanes which expand to four lanes on each side of the existing LA 447 bridge that overpasses I-12. Bypass lanes were designed for eastbound and westbound traffic to and from I-12 to improve the overall operations of the **roundabout ramp terminals**.

TEAM MEMBERS INVOLVED: **C. HALL, N. PRUDHOMME, J. CAINS, J. LEFANTE, M. O'ROURKE**

FIRM NAME	**Stantec Consulting Services Inc.**	PAST PERFORMANCE EVALUATION CATEGORY(IES)*	**Road, Bridge, Traffic**
PROJECT NAME	**LADOTD RETAINER CONTRACT FOR ROADWAY PROJECTS**	FIRM RESPONSIBILITY (prime or sub?)	**Prime**
PROJECT NUMBER	**H.4400002748**	OWNER'S NAME	**Louisiana Department of Transportation and Development**
PROJECT LOCATION	**Statewide, Louisiana**	OWNER'S PROJECT MANAGER	**Ryan McMillan**
OWNER'S ADDRESS, PHONE, EMAIL	**1201 Capital Access, Baton Rouge, LA 70808 | 225.379.1388 | ryan.mcmillan@la.gov**		
SERVICES COMMENCED BY THIS FIRM (MM/YY)	**10/12**	TOTAL CONSULTANT CONTRACT COST ($1,000's)	**$2,835.2**
SERVICES COMPLETED BY THIS FIRM (MM/YY)	**12/21**	COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM ($1,000's)	**$2,567.3**

Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.)

Under this retainer, Stantec helped LADOTD deliver improvements on major congested roadway corridors, providing relief to these areas for years to come. Projects included widening and improving two existing roadways and a roadway on new alignment.

TASK RELEVANCE:

- ☑ Roundabout Design & Plans (Single/ Multilane)
- ☑ Bridge Widening & Structural Design
- ☑ Traffic Analysis
- ☑ Maintenance of Traffic/TMP
- ☑ Exhibits for Permits/Environmental Clearance
- ☑ Quantities & Cost Estimates
- ☑ Quality Review

W. Prien Lake Road Relocation: task order was initiated through a third-party stakeholder (developer) who was willing to donate the right-of-way for the project in exchange for access related to their development. Stantec was asked to develop **preliminary and final plans** for the project, which included complete streets features such as a separated shared use path and sidewalk to promote bicycle and pedestrian mobility as well as **a multi-lane roundabout**. The project also featured a new signalized intersection at the relocated roadway and Nelson Road, which required our team to develop traffic signal warrants, signal timing analyses, and signal plans. Due to the planned urban setting for this area, this project also provided subsurface drainage as well as hydraulic analysis of a 12'x12' multi-barrel box culvert which was also designed by Stantec's structures group. Since the improvements impacted certain areas near the Nelson Road interchange at I-210, Stantec developed a **Level 2 TMP** document. Stantec also provided construction support during the construction phase of the project, providing timely answers to contractor RFIs and questions, as well as reviewing shop drawings. Now complete, this project has improved traffic flow in this very congested area of Southwest Lake Charles. This project was part of the LADOTD Road Transfer program, which was turned over to the City of Lake Charles upon completion of construction.

Government Street: included extensive traffic analysis, modeling, and safety analysis to develop conceptual alternatives to increase traffic safety and improve access management in this highly commercial corridor. Considerations of the LADOTD Complete Streets policy played a key role in deciding the alternative chosen for implementation. A "road diet" was identified as the preferred alternative including **a roundabout at the intersection of Government St. and Lobdell Ave.**, and Stantec developed final construction plans for these improvements. The construction plans consisted of roadway plans (including hydraulic analysis and design) as well as pavement rehab, railroad coordination, ADA improvements, signal warrants and plans, and landscaping plans for enhancement of this corridor. During the construction phase, we provided construction support by answering contractor questions, providing design clarifications, and coordinating with stakeholders about access.

Essen Lane Widening: included Roadway Design **support for environmental clearance**, providing exhibits, cost estimates, and technical discussions of the project, in addition to participating in the public meeting. Following environmental clearance, we provided final roadway plans (including hydraulic analysis and design), **bridge inspection and widening**, and signal plans for the project, and coordinated with all parties to make sure the final construction documents were delivered in a timely manner. This project also included the development of a Level 2 TMP document. During the construction phase, we also assisted District 61 with construction support by **coordinating solutions for utility conflicts**, as well as answering RFIs and providing any design clarifications requested to assist the contractor in completing construction. The project has greatly reduced congestion along the corridor and improved mobility and accessibility for this principal arterial in Baton Rouge.

TEAM MEMBERS INVOLVED: **C. HALL, N. PRUDHOMME, J. CAINS, J. LEFANTE, B. JOHNSON, J. KREBS, M. O'ROURKE, M. NEUMANN, H. KREBS**

FIRM NAME	**Stantec Consulting Services Inc.**	PAST PERFORMANCE EVALUATION CATEGORY(IES)*	**Road, Traffic**
PROJECT NAME	**RIVER ROAD RELOCATION**	FIRM RESPONSIBILITY (prime or sub?)	**Prime**
PROJECT NUMBER	**257-03-0024, 817-16-0030**	OWNER'S NAME	**Louisiana Department of Transportation and Development**
PROJECT LOCATION	**Baton Rouge, Louisiana**	OWNER'S PROJECT MANAGER	**Robert Isemann**
OWNER'S ADDRESS, PHONE, EMAIL	**1201 Capital Access, Baton Rouge, LA 70808 | 225-379-1398 | robert.isemann@la.gov**		
SERVICES COMMENCED BY THIS FIRM (MM/YY)	**03/07**	TOTAL CONSULTANT CONTRACT COST ($1,000's)	**$7,338**
SERVICES COMPLETED BY THIS FIRM (MM/YY)	**12/12**	COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM ($1,000's)	**$4,110**

Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.)

To assist the casino developer with access to the proposed L'Auberge Casino & Hotel resort facility, we used our extensive knowledge of LADOTD policies and requirements to facilitate a partnership between the two entities and developed a plan to have the resort open within the timeline imposed by the Gaming Commission.

TASK RELEVANCE:

- ☑ Roundabout Design & Plans
- ☑ Bridge Design
- ☑ Traffic Analysis
- ☑ Maintenance of Traffic
- ☑ Exhibits for Permits/Environmental Clearance
- ☑ Utility Conflicts Identified
- ☑ Quantities & Cost Estimates
- ☑ Quality Review

Stantec led the charge to develop a plan that resulted in having construction plans, permitting, and construction completed within the three years allowed before the developer would be required to relinquish their license for that site.

The proposed improvements included relocating River Road (LA 327) for approximately one mile, which was a two lane rural high-speed roadway that paralleled the Mississippi River in Baton Rouge, LA. The proposed development required access to their site as well as improved access for roadways leading to the site. From a design standpoint, the project proposed **three roundabout intersections which would be the first in the City of Baton Rouge** and included multi-disciplinary elements that needed to be coordinated, including roadway, drainage, bridge, geotechnical, and traffic design for the relocation of River Road. The goal of implementing roundabouts was to provide a traffic calming effect through the limits of the development property.

Stantec set the groundwork for understanding the needs of the proposed development through a Traffic Impact Study, which at the time required the developer to identify critical intersections to improve within a 10 mile radius of the project site. Joe Cains led the project delivery and roadway design efforts for horizontal and vertical geometry (including the three proposed roundabout intersections within the limits of the proposed site) **striping, signing, drainage**, and close coordination with the proposed roadway lighting design elements. He was able to work closely with Nick Prudhomme who assisted with plan development and drainage design efforts. Stantec's multi-discipline team worked well together and was able to satisfy the Client while making an impression on LADOTD and the City of Baton Rouge with our expedited plan delivery.

TEAM MEMBERS INVOLVED: **C. HALL, N. PRUDHOMME, J. CAINS, J. LEFANTE, B. JOHNSON, M. O'ROURKE**

FIRM NAME	**Stantec Consulting Services Inc.**	PAST PERFORMANCE EVALUATION CATEGORY(IES)*	**Road, Traffic**
PROJECT NAME	**I-49 LAFAYETTE CONNECTOR**	FIRM RESPONSIBILITY (prime or sub?)	**Prime**
PROJECT NUMBER	**H.004273.5 (4400004128)**	OWNER'S NAME	**Louisiana Department of Transportation and Development**
PROJECT LOCATION	**Lafayette, Louisiana**	OWNER'S PROJECT MANAGER	**Timothy Nickel, PE**
OWNER'S ADDRESS, PHONE, EMAIL	**1201 Capital Access, Baton Rouge, LA 70808 | 225-379-1110 | timothy.nickel@la.gov**		
SERVICES COMMENCED BY THIS FIRM (MM/YY)	**07/15**	TOTAL CONSULTANT CONTRACT COST ($1,000's)	**$32,500**
SERVICES COMPLETED BY THIS FIRM (MM/YY)	**Ongoing**	COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM ($1,000's)	**$17,000**

Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.)

Connecting communities and improving interstate access is what the I-49 Connector project is all about.

TASK RELEVANCE:

- ☑ Roundabout Design & Analysis
- ☑ Bridge Design
- ☑ Traffic Analysis
- ☑ Exhibits for Permits/Environmental Clearance
- ☑ Utility Conflicts Identified
- ☑ Quantities & Cost Estimates
- ☑ Quality Review

Stantec serves as the Prime Consultant and Program Manager for the proposed 5.5 mile, elevated, six-lane highway that will traverse urban Lafayette from I-10 south to its end near the Lafayette Regional Airport. The overall project includes construction of a freeway with accompanying interchanges in the Evangeline Thruway / US 90 / US 167 corridor and flanking frontage roads for local traffic circulation and access. A critical transportation link, the I-49 Connector will be one of the final major components to completing the "Future I-49 Corridor", which has been planned by Louisiana for decades. LADOTD began planning for the project in 1990 and after an alternative was selected the project was put on hold in 2006.

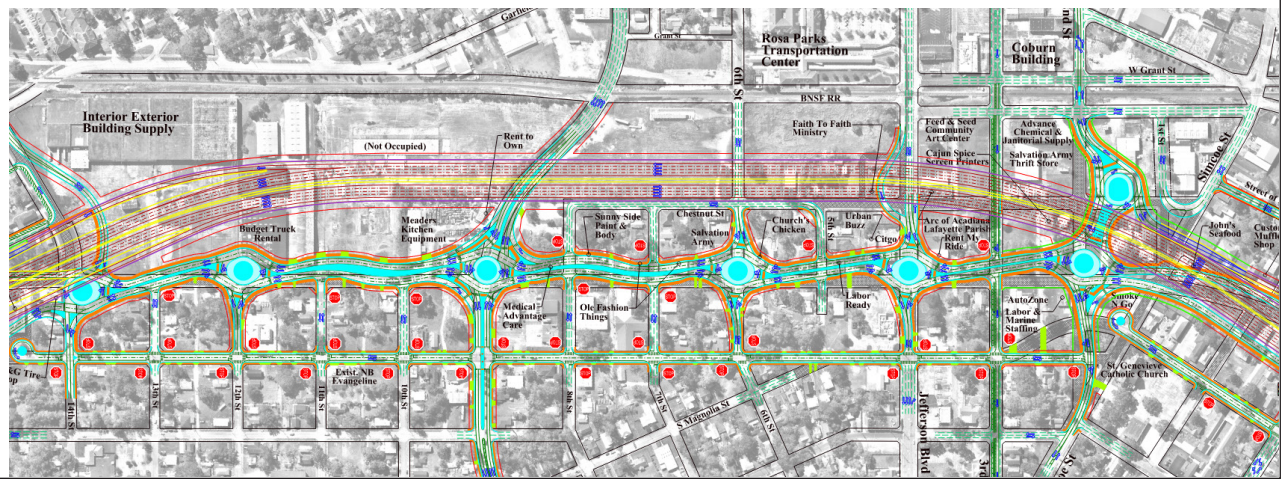
In the fall of 2015, LADOTD decided it was time to move forward with the project, Stantec embraced this as a true community project with a plan to weave the Connector into the neighborhood fabric and engage the impacted residents in creating a roadway that could truly become a community asset.

Our first activity was to complete the functional plan that started in 2006, which included an extensive community outreach and public input phase. Refinement concepts to the Selected Alternative generated by the public and other stakeholders were investigated and a final design concept was adopted. The functional plan phase included **final geometrics**, traffic and ITS analyses, **EIS re-evaluation, bridge-type selection**, lighting, rail and airport coordination, and underpass planning, along with preliminary geotechnical investigation, SUE and topographic survey, and mapping.

The CSS process continued by using the refined concept to set the attributes of 55 CSS design elements to be incorporated into the project, including parks, plazas, landscaping, hardscaping and brick pavers, and bridge aesthetic treatments. The CSS process concluded with a Design Guidelines document to direct the design and construction of the project.

Analysis of different alignments and interchange configurations were performed using TransCAD, Vistro, HCS, SIDRA, and VISSIM software. The traffic evaluation included a detailed Vistro model of 60 intersections along the project corridor. Each intersection was evaluated for potential control type changes to either unsignalized, signalized, or **roundabout control**. Stantec's Team has recently started preliminary design of the Kahlil Saloom and Willow Interchanges.

TEAM MEMBERS INVOLVED: **C. HALL, N. PRUDHOMME, J. CAINS, J. LEFANTE, M. O'ROURKE, H. KREBS, M. NEUMANN, B. JOHNSON, J. KREBS**



FIRM NAME	**Stantec Consulting Services Inc.**	PAST PERFORMANCE EVALUATION CATEGORY(IES)*	**Road, Bridge, Traffic**
PROJECT NAME	**I-210 COVE LANE EXTENSION AND INTERCHANGE**	FIRM RESPONSIBILITY (prime or sub?)	**Prime**
PROJECT NUMBER	**H.010151**	OWNER'S NAME	**Louisiana Department of Transportation and Development**
PROJECT LOCATION	**Lake Charles, Louisiana**	OWNER'S PROJECT MANAGER	**Timothy Nickel**
OWNER'S ADDRESS, PHONE, EMAIL	**1201 Capital Access, Baton Rouge, LA 70808 | 225-379-1110 | timothy.nickel@la.gov**		
SERVICES COMMENCED BY THIS FIRM (MM/YY)	**04/11**	TOTAL CONSULTANT CONTRACT COST ($1,000's)	**$6,000 (estimated)**
SERVICES COMPLETED BY THIS FIRM (MM/YY)	**03/15**	COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM ($1,000's)	**$4,400**

Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.)

"I also want to thank the consultant, Stantec... I want to recognize you all for your forward thinking and your help in partnering and bringing everyone together to make this project successful." - *Former LADOTD Secretary, Sherri Lebas*

A fast-tracked implementation schedule for a proposed $600M casino/resort facility created the immediate need for improved interstate access and local street connectivity in Southwest Lake Charles. The new casino development was obligated to be open three years from the date the Gaming Commission approved the development. Our relationships with the Developer, LADOTD, and FHWA combined with our knowledge of the policies and procedures required by the state and federal agencies allowed us to facilitate a partnership to help identify the type of access needed and move quickly to a shovel-ready project.

Stantec began with the traffic analysis necessary to satisfy FHWA IMR policy points and DOTD's alternative development process, which resulted in 29 different interchange alternatives being analyzed individually along I-210. Once all alternatives were vetted through the process, 5 alternatives were selected to move forward into the environmental process. Stantec provided the supporting **roadway design exhibits and information necessary to obtain environmental clearance** (EA/FONSI), while designing preliminary plans AT-RISK parallel to the environmental process so that once environmental clearance was obtained, final plans could ensue in short order to allow construction of the interchange to begin as soon as possible and be open to traffic in time for the casino's opening.

TASK RELEVANCE:

- ☑ Roundabout Design & Analysis
- ☑ Bridge Design
- ☑ Traffic Analysis
- ☑ Conceptual Maintenance of Traffic / TMP
- ☑ Exhibits for Permits/Environmental Clearance
- ☑ Utility Conflicts Identified
- ☑ Quantities & Cost Estimates
- ☑ Quality Review

The design was complex, including a tight urban diamond interchange, retaining walls on top of a load transfer platform due to poor soils, and tight right-of-way constraints which made phasing of construction and maintenance of traffic challenging. A **Level 2 TMP** was developed for this project, as this section of I-210 did not affect adjacent properties or access due to limited development at the time.

The project included **two roundabouts**, one in close proximity to the ramp terminal on the south side of I-210 and the other close to a new bridge structure on the north side of I-210. With quick turnarounds for limited milestone submittals, **quality review** was particularly critical to the success of the project. Stantec implemented a special "review workshop" format periodically between milestones to inform and update reviewers of the design elements, challenges, and design justifications during the delivery process. As a result, a typical eight to ten year process of planning through construction letting was reduced to just over two years.

In 2016, ENR awarded the project Regional Best Project Award of Merit: Highway/ Bridge. For our **project management** efforts on the project, we received a 4.9 out of 5.0 rating score from LADOTD.

TEAM MEMBERS INVOLVED: **C. HALL, N. PRUDHOMME, J. CAINS, J. LEFANTE, B. JOHNSON, M. O'ROURKE, J. KREBS**

FIRM NAME	**Vectura Consulting Services, LLC**			PAST PERFORMANCE EVALUATION CATEGORY(IES)*	**Traffic**
PROJECT NAME	**I-10 ITS SCOTT TO LAKE CHARLES**			FIRM RESPONSIBILITY (prime or sub?)	**Sub**
PROJECT NUMBER	**H.013256.5**	OWNER'S NAME	**Louisiana Department of Transportation and Development**		
PROJECT LOCATION	**I-10 (District 07), Louisiana**			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 (MM/YY)	**01/21**	TOTAL CONSULTANT CONTRACT COST ($1,000's)			**N/A**
SERVICES COMPLETED BY THIS FIRM (MM/YY)	**03/21**	COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM ($1,000's)			**$20,162**

Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.)

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,
- and public information strategies

TEAM MEMBERS INVOLVED: **B. FERLITO, L. LAMBERT, R. REECE, K. FARRINGTON**

FIRM NAME	**Vectura Consulting Services, LLC**	PAST PERFORMANCE EVALUATION CATEGORY(IES)*	**Traffic**
PROJECT NAME	**ROUNDABOUT: US 171 AT BOONE ST.**	FIRM RESPONSIBILITY (prime or sub?)	**Sub**
PROJECT NUMBER	**H.011909.5**	OWNER'S NAME	**Louisiana Department of Transportation and Development**
PROJECT LOCATION	**Vernon Parish, Louisiana**	OWNER'S PROJECT MANAGER	**Josh Harrouch**
OWNER'S ADDRESS, PHONE, EMAIL	**1201 Capitol Access Road, Baton Rouge, LA 70802 | 225-242-4640 | Joshua.Harrouch@LA.gov**		
SERVICES COMMENCED BY THIS FIRM (MM/YY)	**04/17**	TOTAL CONSULTANT CONTRACT COST ($1,000's)	**N/A**
SERVICES COMPLETED BY THIS FIRM (MM/YY)	**12/20**	COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM ($1,000's)	**$82.045**

Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.)

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.

TEAM MEMBERS INVOLVED: **B. FERLITO, L. LAMBERT, R. REECE**

FIRM NAME	**Vectura Consulting Services, LLC**			PAST PERFORMANCE EVALUATION CATEGORY(IES)*	**Traffic**
PROJECT NAME	**LA 30 ROUNDABOUTS AT TANGER I-10**			FIRM RESPONSIBILITY (prime or sub?)	**Sub**
PROJECT NUMBER	**H.010960.5**	OWNER'S NAME	**Louisiana Department of Transportation and Development**		
PROJECT LOCATION	**Ascension Parish, Louisiana**			OWNER'S PROJECT MANAGER	**Josh Harrouch**
OWNER'S ADDRESS, PHONE, EMAIL	**1201 Capitol Access Road, Baton Rouge, LA 70802 | 225-242-4640 | Joshua.Harrouch@LA.gov**				
SERVICES COMMENCED BY THIS FIRM (MM/YY)	**04/17**	TOTAL CONSULTANT CONTRACT COST ($1,000's)			**N/A**
SERVICES COMPLETED BY THIS FIRM (MM/YY)	**12/20**	COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM ($1,000's)			**$153,294**

Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.)

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.

TEAM MEMBERS INVOLVED: **B. FERLITO, L. LAMBERT, R. REECE**

Section 18

LA 327 RIVER ROAD
AT L'AUBERGE CASINO

18. **Approach and Methodology:**

PROJECT UNDERSTANDING

Ascension Parish has experienced the second-fastest growth rate in the state between 2010 and 2020 and saw a 23% increase between 2020 and 2023. The LA 44 corridor (known locally as Burnside Avenue) is a highly utilized route north of I-10 near US 61 (Airline Highway) and is one of the primary access roads south of I-10 to multiple industrial plants along the Mississippi River. We understand that the area south of I-10 is poised for growth with new and planned developments such as Conway Plantation between I-10 and LA 941 (Loosemore Road), Edenborne between I-10 and Edenborne Parkway, Oak Lake Subdivision between Edenborne Parkway and Loosemore Rd, and Riverton along LA 22 south of the proposed project. This same area south of I-10 is already home to Pelican Point, one of the largest neighborhoods in Gonzales.

A Roundabout Justification Report (RJR) for the LA 44 corridor was performed in 2018 to determine if this future growth would negatively impact existing levels of service, operations, and safety. The results of the analysis recommended corridor-wide roundabouts that were shown to significantly lower queues, decrease delay, improve travel time, and mitigate congestion. **The goal of this project is to maintain the four-lane divided section and design three multilane roundabouts near the I-10 at LA 44 interchange** —one multilane roundabout at each interstate ramp terminal and the third at the adjacent intersection to the south, Edenborne Parkway. This project is one of several that are planned to be built along the corridor to implement the RJR's findings and provide an improved roadway corridor that meets the traffic demands of current and planned developments. In our preparation for this proposal, we investigated adjacent project H.010909, LA 44: Widening and Roundabout at LA 941, which begins south of LA 941 at the Panama Canal and ends at the southern approach slabs of the Conway Bayou bridges, and we are prepared to coordinate with the adjacent project's PM as needed to ensure consistency in the geometry along the corridor.

Stantec's interest in, and familiarity with this project, began early with multiple approved pre-proposal meetings with DOTD Project Manager Jacob Fusilier and Paulette Territo from Consultant Contract Services. We believe our early research on this project has given us valuable insight into the scope requirements as well as the time to assemble an exceptionally qualified team with decades of experience and an intimate knowledge of DOTD's policies and procedures.

LA 44 at I-10 WB Intersection

TEAMWORK

We understand this contract's **DBE goal of 6%** and have assembled our team accordingly.

Before design can even begin, the relationship between client and consultant starts with the negotiation of scope and fee. We are committed to starting off on the right foot and having the negotiation process go as smoothly as possible with fair and timely manhour estimates and quick turnarounds. As plans proceed and unforeseen issues undoubtedly arise, we will work to bring solutions and recommendations to the table rather than "designing by comment". Stantec has a 40-year long history of working closely with DOTD to produce innovative transportation projects with plans that meet Federal and State guidelines and consider local input. Stantec designed the first three roundabouts in Baton Rouge on the River Road (LA 327) Relocation project for the L'Auberge Casino and each of the team members on our organization chart participated in that project and many other roundabout projects since.

For the LA 44: I-10 Roundabouts project, we have teamed with Vectura as our Traffic subconsultant. **Vectura recently participated in the LA 30 Roundabout project at the next interchange on I-10** where they were key to the maintenance of traffic design for the roundabouts at the ramp terminals. Vectura designed the temporary signals for the phased construction of the roundabouts. We know that this team will work very well together to give DOTD a carefully considered, organized set of construction plans.

PROJECT APPROACH

Determining if the existing bridges over Conway Bayou can be incorporated in the project will play a major role in both the design approach of the roundabout at Edenborne Parkway as well as the overall project construction. Stantec has initially considered two options depending on whether the existing bridges need to be replaced or if they can be rehabilitated in accordance with Attachment A of the advertisement.

Option 1: Rehabilitate the Bridge

From observations during a site visit, the existing bridges appear be serviceable. If the structural study finds they can remain, we will investigate shifting the roundabout at Edenborne Parkway north such that both the northbound approach leg and southbound exit leg geometry does not impact the bridge structures. While bridge rehabilitation will be required, not having to replace the existing spans would be a tremendous savings to construction time and project complexity. **At a minimum, existing bridge railings will be replaced with new 36" single slope MASH TL-4 railing, piles will be fortified, and guardrails will be upgraded to current standards**.

Shifting the roundabout to the north is not without its challenges as it would require re-aligning the connection to Edenborne Parkway. The new tie-in will need to address required right-of-way in the northwest quadrant of the intersection, potential wetland impacts adjacent to the tie-in, relocation of the utility corridor access driveway and the relocation of overhead electric distribution poles. Our team has extensive experience determining required right-of-way limits, attending Joint Plan Review meetings, and making sure DOTD has everything they need for the development of acquisition and recordation maps. Even with the potential conflicts and added design considerations, we believe avoiding major bridge construction would be a win for the Department. Other considerations when the existing bridges remain in place include modifying striping to remove the existing northbound left turn lane and coordinating with the adjacent project, which should be under construction soon.

LA 44 at Conway Bayou Bridge

Option 2: Bridge Replacement

Replacing the bridges would eliminate challenges with shifting the Edenborne roundabout north as discussed in Option 1. This will allow a roundabout location that is more centered on the existing intersection. The advantages of a centered roundabout include minimizing the realignment of Edenborne Parkway and reducing right-of-way and utility impacts in the northwest quadrant.

The locations of the two roundabouts at I-10 are more straightforward than the location of the one at Edenborne Parkway, but the distance between them will be controlled by the approach geometry avoiding the existing I-10 bridge columns. Beneath the I-10 structure, we will investigate geometric improvement options including pavement removal, continuous curbed median, and pier protection for the existing bridge columns.

We've learned from past roundabout designs at interchange terminals that the unique geometry of consecutive one-way entrance legs in adjacent quadrants must be appropriately spaced for efficient operation. In a traditional design, each quadrant has an exit and an entrance leg. Usually when vehicles exit the roundabout, they create a gap for the downstream yielding vehicle to enter. However, at interchange terminals, the one-way entrance ramp leg does not benefit from having gaps created by an exit leg upstream of it, which could cause queuing on the ramp. **Stantec's design will adequately space consecutive entrance legs to create effective gaps to help alleviate excessive queuing**. The new roundabouts will be designed using a WB-67 design vehicle and typical best-practices such as left offset alignments, fastest path analysis, and entry path overlap avoidance. It will adhere to FHWA and DOTD policies and standards set forth in the Road Design Manual, NCHRP Report 672 Roundabouts: An Informational Guide, and the Minimum Design Guidelines.

Bridge Services

The twin existing bridges, built in 1974 and 1978, are located approximately 1100-ft south of I-10 along LA44. Each structure consists of five 25-ft slab spans founded on pile bents that are skewed 30-deg to align with Conway Bayou. To assist DOTD in determining if the structures can remain, our structures team will begin by reviewing available data to gain knowledge about the history of these structures and to prepare for an in-depth field investigation. Observations found in the field, along with the gathered data, will be used to perform LRFR bridge ratings for the existing structures and widened structures (if widening seems feasible). If results indicate the structures can be modified and remain in place, coordination with the roadway design team will be imperative for the final recommendation. **Results from the bridge ratings, condition assessments, available bridge data, and recommendations for replacement or widening will be assembled into a comprehensive bridge evaluation report.** Using DOTD's decision, design criteria will be established for the remainder of the design phase, including preliminary and final plans and as-designed load ratings.

Maintenance of Traffic

One of the most important components of the construction plans for roundabout projects is a well-conceived traffic control and sequence of construction plan. Our roundabout designs will balance location with constructability. While a roundabout located in the center of an intersection may be more aesthetically pleasing than an offset alignment, it is often the most difficult to construct while maintaining traffic. Local temporary diversions will be important as detours on this isolated highway will likely not be practical.

At the interstate terminals, we will investigate the potential to leave the existing signals in place as long as possible during construction; otherwise, temporary signals may be needed. Temporary traffic control at the Edenborne roundabout depends on its proposed location. A more northerly Edenborne roundabout may provide enough room to temporarily divert traffic outside the roadway north of the bridge, but a centered roundabout could have construction so close to the ends of the bridge that less desirable diversions such as a temporary bridge may be necessary. With approval from the DTOE, a phased construction option would involve maintaining traffic on one of the existing structures while the opposing bridge and half of the roundabout is constructed. Our team is committed to constructability and will develop traffic control options that optimize construction time and lessen inconvenience.

Typical Section and Drainage

The chosen typical section and the decision to implement open shoulders vs. curbs will have a major impact on the drainage design. In addition, Ascension Parish's Long

Construction: LA 447/I-12 Interchange

Range Transportation Master Plan includes bike lanes along LA 44 south of I-10. While not included in this project, these future improvements should also be considered when determining the typical section and the right-of-way limits. The corridor is listed as a principal urban arterial with an Average Annual Daily Traffic (AADT) that varies between 14,888 north of I-10 and 13,686 south of I-10 (2022 volumes), and the Minimum Design Guidelines gives the option of "curb" or "no curb" for urban arterials. However, the existing section has open shoulders with ditches and side drains, and it should be noted that the adjacent project H.010909 will provide the same. **We will investigate the advantages of both curb (smaller footprint) and shoulder (simpler construction, lower cost) and give a recommendation early in preliminary plans**. Whichever is chosen, our team is highly competent in DOTD's HYDRWIN hydraulics programs and we have provided designs for urban subsurface, rural ditch, and a combination of both in conjunction with our roundabout projects. The FEMA flood maps show that LA 44 is not in a Flood Hazard Area, but the 100-yr Zone AE surrounds it. A Letter of Map Revision (LOMR) was approved in September 2019 which revised the flood profile for Conway Bayou, and this information will be used to help determine outfall stage elevations for any required subsurface drainage systems.

Control of Access

The existing LA 44 corridor immediately north and south of I-10 does not comply with DOTD's current access management and control of access policies and may need to be upgraded. **Our team's work on the highly urban and densely populated I-49 Connector in Lafayette, LA has given us an in-depth understanding of DOTD's preferences regarding interstate access points**, and we have experience developing Control of Access Justification Waivers that adapt the design to challenging existing conditions.

North of I-10, two full access median openings exist within approximately 1300' of the ramp intersection. These openings would conflict with DOTD's preferred distance of 1320' of raised median from the ramp's control of access. Since the furthest median opening is near the maximum distance, we will investigate its necessity to remain and justify with a waiver if needed. Similarly, south of I-10, the proposed raised median will cut off another median opening, and the utility access drive will require right-in-right-out access.

Utilities

The most glaring major utility obstacle is the large truss transmission structure and servitude between the two proposed roundabouts south of I-10. While construction near this utility feature is unavoidable, we regard this as critical infrastructure, and we will emphasize avoiding it and providing roadside protection. Providing this protection will require coordination with the underground propane pipelines that are also present in the transmission line servitude. Guardrail posts or a barrier footing will need to be designed to avoid the pipeline. During our project on US 90 at LA 318 in St. Mary Parish, we coordinated with six major pipelines to either protect or lower their lines to avoid construction. Understanding the location of control of access will also be critical. Pipelines within control of access facilities are typically cased for the full right-of-way width. If our design extends control of access across the pipelines where there was none before, the pipeline may need casing extensions. We understand that utility coordination is provided by DOTD, but we are prepared to assist with exhibits and meetings to facilitate communication.

Other utilities that cannot be reasonably avoided will be added to the Utility Conflict Matrix for 90% preliminary plans. While utilities such as gravity sewer and forcemain are typically owned by the municipality, it's not uncommon for these relocations to be handled by the State when DOTD lets the project. If necessary, **our team has experience writing and converting municipality-specific, non-standard specifications to DOTD format, as well as experience writing special provisions** for a wide array of disciplines.

TMP

The purpose of the Transportation Management Plan (TMP) is to minimize motorist delays associated with project construction while maintaining public and worker safety and the quality of the construction. Transportation management strategies for a work zone include temporary traffic control measures and devices, public outreach, and operations strategies such as detours, signal timing adjustments, and traffic incident management. Both LADOTD's EDSM No. VI.1.1.8 Transportation Management Plans (TMP) dated March 13, 2012 and FHWA's guidance manual Developing and Implementing Transportation Management Plans for Work Zones dated December 2005 will be used as references for the development of this TMP. Our roadway team and traffic sub, Vectura, have extensive experience providing all levels of TMPs, including several Level 4's on our past interstate designs. For LA 44, a Level 2 TMP is anticipated requiring TTC details, public information release language, and a potential for mitigation strategies or work restrictions if safety and operations require that level of planning.

Environmental Support

We understand that Final Plans cannot proceed until environmental clearance is approved. The Stantec team will be ready to assist DOTD with additional traffic analysis, public meeting exhibits, and cost estimates should they be needed to obtain environmental clearance. Stantec's design will comply with the environmental commitments that DOTD recommends.

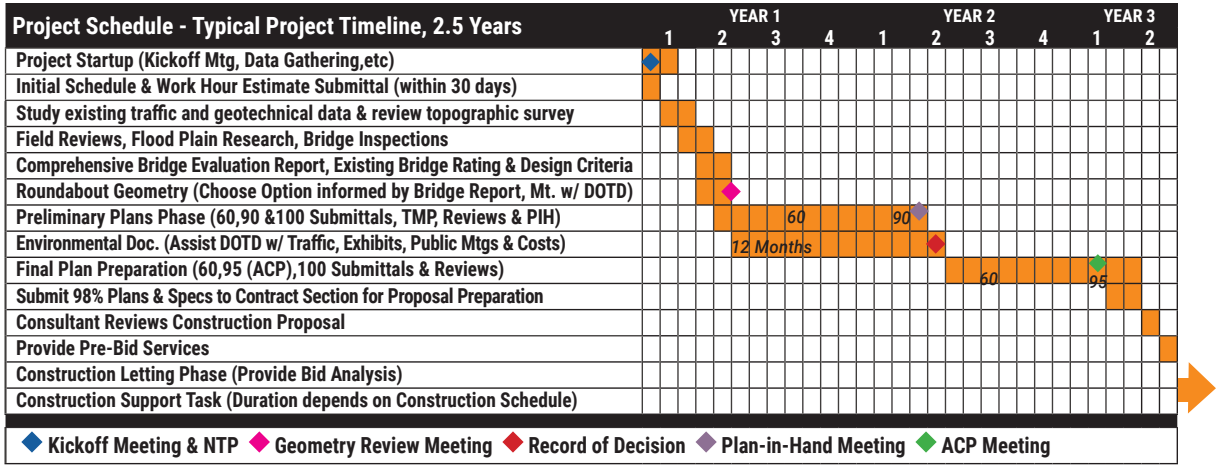
Bid Services

After the design process, we will assist in answering contractor's pre-bid questions, as well as review the potential winning bid and provide a recommendation to either award or reject. Our staff has experience with challenging bid justifications. During the onset of recent inflation and supply chain issues, our team assisted DOTD with a comprehensive bid analysis justification report for project H.011098 LA 30

(Nicholson Drive) that compared such metrics as inflation indices, past weighted averages with DOTD's Bid History tool, and the Consumer Price Index.

Lighting

While we understand that lighting at the roundabouts is not planned to be scoped on this contract, we are aware that the existing lighting at I-10 and LA 44 has been replaced with high mast LEDs. If needed, we would perform photometric calculations during the preliminary plans phase to determine if the DOTD interstate lighting design criteria is still met for the new RAB and ramp geometry. Our electrical team lead by Derrick Goudeau has substantial experience designing and modifying DOTD interstate lighting systems and is available to support the project if needed.



Quality Control

Stantec is committed to quality, and that begins with experience and strict adherence to the Quality Management Plan outlined in section 21 of this 24-102. The expectations we set for ourselves go beyond just reducing plan errors and typos—we insist our designs emphasize constructability and minimize impacts to the community. Our internal reviewers have decades of experience designing and managing roundabout projects and understand that quality and completeness is the sole responsibility of our team and not DOTD.

PLAN PRODUCTION AND SCHEDULE

The LA 44 at I-10 Roundabouts project timeline is considered typical. The schedule above summarizes our understanding of the progression of work during the 2.5-year design contract. Line items showing milestone submittals include timeframes for Quality Control and Plan Reviews by DOTD and other invited stakeholders. **If at any time DOTD decides that the schedule needs to be accelerated, our team has the depth of bench to mobilize additional manpower to exceed DOTD's expectations**.

To start preliminary planning, Stantec will review the existing site data, available studies and traffic data, Stantec will also review the DOTD-provided topographic survey in detail to make sure the coverage is adequate and to note any utilities or special situations that will require attention during design. Our Bridge Engineer will conduct the needed research, field visits and analysis to complete the required comprehensive bridge evaluation report and establish design criteria for the bridge widening or replacement. Next, **we would recommend an early geometric submittal, informed by the bridge report, that will present the roundabout locations we have selected and get DOTD's feedback** prior to progressing with geometric detailing and plan development.

Preliminary and final plan submittals will be made through ProjectWise for DOTD's review and will include cost estimates, milestone checklists, and QA/QC certifications. The 95% preliminary plans will be submitted to DOTD for distribution at least 21 days prior to the Plan-in-Hand meeting. At the conclusion of preliminary plans, the design is considered to have progressed enough to have defined the geometry and scope of the improvement, the right-of-way taking needs, and all major quantities on the project. The Stantec Team will not proceed to final plans until the environmental document has been cleared by DOTD. Once notified to proceed we will finalize the plans details needed for construction including sheets not produced during preliminary plans. All quantity calculations, pay item selection, and summary of quantity tables will also be finished. The 98% plans and specifications will be stamped and signed and delivered to DOTD's Contract's Section for preparation of the construction proposal. Stantec will also review the construction proposal, provide answers to contractor's questions prior to the bids, provide bid analysis, and perform construction support if requested.

CLOSING

Stantec has had the privilege of designing several multi-roundabout corridors as well as roundabout interchanges, such as:

- **I-12 at LA 447** in Livingston, LA (constructed)--series of multilane roundabouts at interstate ramps
- **I-210 at W. Prien Lake Road and Cove Lane** in Lake Charles, LA (constructed)--multilane roundabout near an interstate ramp and a series of single lane roundabouts
- **Government Street Road Diet and roundabout at Lobdell Ave.** in Baton Rouge, LA (constructed) – roundabout with bypass lanes serving as a gateway to Mid-City
- **LA 327 River Road at L'Auberge Casino**, first in Baton Rouge, LA (constructed)—series of three single lane roundabouts

The same long-standing design and management team that has delivered numerous successful innovative intersections is ready and available to work with DOTD on this important and transformative project for LA 44 in Ascension Parish!

Sections 19-23

LA 86 AT LA 320

19. **Workload:**

FIRM(s) ALL FIRMS MUST BE REPRESENTED IN THIS TABLE	Past Performance Evaluation Discipline(S)*	Contract Number and State Project Number	PROJECT NAME	REMAINING UNPAID BALANCE**
Stantec Consulting Services Inc.	Road	4400024629 H.005967.6	Nelson Road Ext. and Bridge [Calcasieu Parish, Louisiana]; Striping Pln. Changes	$4,610
		440004128 H.004273.5	Lafayette Regional Airport to I-10/I-49/US 167 Interchange [Lafayette Parish]; Geometric Design/Analysis	$883,375
		H.011670	Loyola Dr./I-10 Interchange to New Airport Terminal Design Build (Sub to Gilchrist Co., LLC) [Jefferson Parish]; Roadway	$57,749
		4400024461 H.012685.5	LA 385: Ryan Street Intersection Improvements [Calcasieu Parish]; Roadway Design; Drainage	$147,509
		4400022901 H.011094.5	LA 3094: Hearne Ave. Bridge: KCS RR Overpass (HBI) [Caddo Parish]; Roadway	$322,318
Stantec Consulting Services Inc.	Bridge	440004128 H.004273.5	Lafayette Regional Airport to I-10/I-49/US 167 Interchange [Lafayette Parish]; Structure & Bridge	$529,133
		H.011670	Loyola Dr./I-10 Interchange to New Airport Terminal Design Build (Sub to Gilchrist Co., LLC) [Jefferson Parish]; Bridge as-built	$0
		4400022901 H.011094.5	LA 3094: Hearne Ave. Bridge: KCS RR Overpass (HBI) [Caddo Parish]; Bridge	$374,912
Stantec Consulting Services Inc.	Traffic	440004128 H.004273.5	Lafayette Regional Airport to I-10/I-49/US 167 Interchange [Lafayette Parish]; Traffic Engineering	$253,958
		4400024461 H.012685.5	LA 385: Ryan Street Intersection Improvements [Calcasieu Parish]; Traffic Study; Signal Design	$117,366
Stantec Consulting Services Inc.	Other (Lighting)	4400024629 H.005967.6	Nelson Road Ext. and Bridge [Calcasieu Parish, Louisiana]; Roadway & Nav. Lighting	$44,598
		440004128 H.004273.5	Lafayette Regional Airport to I-10/I-49/US 167 Interchange [Lafayette Parish]; Public Relations/Comm.; Lighting; Aviation	$73,964
		4400011353 S. P. No. H.014302.6	IDIQ Contract for Electrical Services (Sub to Buchart Horn, Inc.); US 165 Roadway Lighting [Ouachita Parish]; Lighting	$18,009
		H.011670	Loyola Dr./I-10 Interchange to New Airport Terminal Design Build (Sub to Gilchrist Co., LLC) [Jefferson Parish]; Lighting	$29,579
		4400020064 H.014272.5	IDIQ Contract for Electrical Services; I-10: LA 97 (Jennings) Interchange Lighting [Jefferson Davis Parish]	$1,487
		4400020064 H.014287.5	IDIQ Contract for Electrical Services; I-10: LA 99 (Welsh) Interchange Lighting [Jefferson Davis Parish]	$16,845
		4400020064 H.014286.6	IDIQ Contract for Electrical Services; I-10: LA 26 (Jennings) Interchange Lighting [Jefferson Davis Parish]	$120,980

Stantec Consulting Services Inc.	Other (Lighting)	4400020064 H.014272.6	IDIQ Contract for Electrical Services; I-10: LA 97 (Jennings) Intchg Lighting [Jefferson Davis Parish]	$144,406
		44-04761 H.004957.5	I-12 to Bush Corridor, LA 3241: I-12 to LA 36 (Sub to Evans-Graves Engineering, Inc.) [St. Tammany Parish]; I-12/LA 434 Lighting Project	$5,781
Stantec Consulting Services Inc.	CE&I/OV	4400024629 H.005967.6	Nelson Road Ext. and Bridge [Calcasieu Parish, Louisiana]; CE&I and Construction Support	$442,002
		H.011670	Loyola Dr./I-10 Interchange to New Airport Terminal Design Build (Sub to Gilchrist Co., LLC) [Jefferson Parish]; CE&I / OV	$91,823
Stantec Consulting Services Inc.	Right-of-Way	440004128 H.004273.5	Lafayette Regional Airport to I-10/I-49/US 167 Interchange [Lafayette Parish]; ROW Acquisition	$69,753
		H.011670	State of LA, DOTD versus 2845 Loyola Blvd., LLC ET AL [Jefferson Parish]; Right-of-Way Expert Witness	$6,050
Stantec Consulting Services Inc.	Survey	440004128 H.004273.5	Lafayette Regional Airport to I-10/I-49/US 167 Interchange [Lafayette Parish]; Survey	$22,731
Stantec Consulting Services Inc.	Planning	440004128 H.004273.5	Lafayette Regional Airport to I-10/I-49/US 167 Interchange [Lafayette Parish]; Prog. Mgmt.; Context Sensitive Design Process; Impl. Strategies	$948,655
Stantec Consulting Services Inc.	Other (C&AV)	44-1792 H.012845.1	IDIQ Contract for Intelligent Transportation Systems (ITS) System Design, Integration and System Verification Services; Connected & Autonomous Vehicles - Team Support [Statewide]	$210,688
Stantec Consulting Services Inc.	ITS	440004128 H.004273.5	Lafayette Regional Airport to I-10/I-49/US 167 Interchange [Lafayette Parish]; ITS	$36,314
		4400020058 H.013710.6	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; I-10/US-61 to Laplace ITS Deployment [Ascension, St. James & St. John Parishes]	$7,611
		4400020058 H.002424.5	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; LA 70: Sunshine Bridge - LA 22 [St. James & Ascension Parishes]	$427
		4400020058 H.015136	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; Statewide ITS Architecture Update [Statewide]	$9,044
		4400020058 H.013261.6	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; I-110 ITS Deployment [EBR Parish]	$21,743
		4400020058 H.011152.6	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; I-12: US 190 to LA 59 [St. Tammany Parish]	$35,513
		4400020058 H.013866.6	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; I-12: LA 21 to US 190 [St. Tammany Parish]	$29,610
		4400020058 H.003047.6	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; I-10: Pecue Lane/I-10 Interchange Phase III [EBR Parish]	$34,739
		4400020058 H.002424.6	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; LA 70: Sunshine Bridge - LA 22 [St. James & Ascension Parishes]	$22,742

Stantec Consulting Services Inc.	ITS	4400020058 H.015137.1	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; Bonnet Carre ITS Upgrades [St. John the Baptist, St. Charles & Jefferson Parishes]	$79,363
		4400020058, T.O. 16	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; I-10 WBR Queue Warning System [Iberville & WBR Parishes]	$200,800
		4400020058, T.O. 17	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; New Orleans Regional Arch Updates [Orleans, St. Tammany & Tangipahoa Parishes]	$73,510
		4400020058, T.O. 18	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; Shreveport Phase 2b ITS SEA Updates [Caddo Parish]	$49,965
		4400020058, T.O. 19	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services; Monroe Phase 3 SEA [Ouachita Parish]	$58,715
Vectura Consulting Services, LLC	Traffic	4400017293 H.010616	I-20: LA 544 Overpass Replacement	$ 74,429
		4400005484 H.005168.2	New Orleans Rail Gateway Avondale EA	$92,995
		H.004791	Belle Chasse Bridge & Tunnel Replacement PPP	$14,740
		4400021519 H.012030.5	KCS RR Overpasses HBI	$572
		4400023075 H.013522	S. Lewis Street Widening	$7,499
		4400018271 H.014746.5	LA 383 Stage 0 Corridor Study	$22,388
		4400018271 H.011242.1	LA 384 (Big Lake Rd to McNeese St)	$31,827
Vectura Consulting Services, LLC	ITS	4400016364 H.015136.4	Northshore Regional ITS Architecture Update	$11,421
		4400017922 H.012845.1	C/AV Team and Working Group Support	$13,949
		44000020058 H.011507.1	Monroe Phase 3 SEA	$29,217
Vectura Consulting Services, LLC	CE&I/OV	4400020018 H.007160	EBR Computerized Traffic Signal, Ph VB	$33,910

(Add rows as needed) DO NOT SUM

***The **only** past performance evaluation disciplines to be used are: Road, Bridge, Traffic, CE&I/OV, Geotech, Survey, Environmental, Data Collection, Planning, Right-of-Way, CPM, ITS, Appraiser and Other (please specify). If a firm has more than one past performance evaluation discipline for any single project, the firm can use multiple rows to express the remaining unpaid balance per evaluation discipline.

**** Round to the nearest dollar. **Do not** round to the nearest thousands. If there are no active contracts with a remaining unpaid balance, please place N/A in the remaining unpaid balance column. NOTE: ALL FIRMS MUST BE REPRESENTED IN THIS TABLE. LEAVING THE "REMAINING UNPAID BALANCE" COLUMN BLANK IS NOT ACCEPTABLE.

20. **Certifications/Licenses:** If the advertisement requires submission of licenses and/or certificates, include them here. Otherwise, leave this section blank.

Certificate of Completion

presented to

Cindy Hall

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: March 10, 2021
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Cindy Hall

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: March 11, 2021
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Cindy Hall

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: March 10, 2021
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Cindy Hall
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

6/24/2022 to 6/24/2026
Training Valid Through

Director of Training

Baton Rouge, LA
Location

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

ATSSA American Traffic Safety Services Association ATSSA.com

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Nick Prudhomme
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

6/24/2022 to 6/24/2026
Training Valid Through

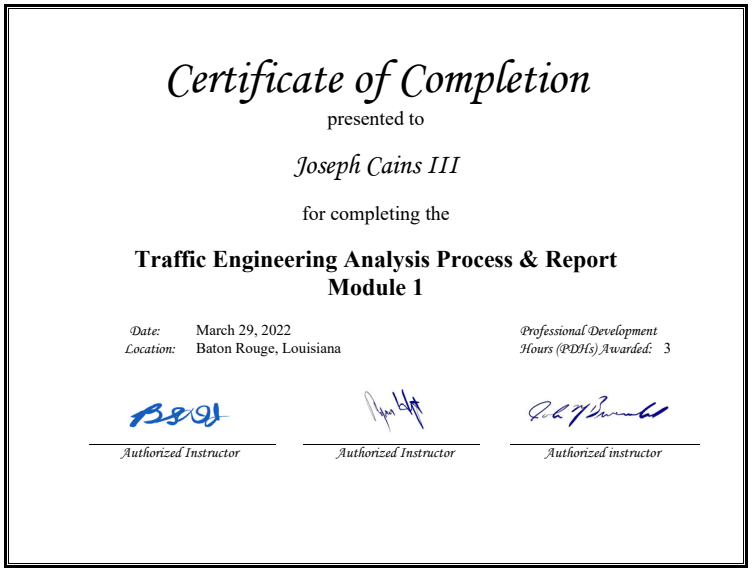
Director of Training

Baton Rouge, LA
Location

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

ATSSA American Traffic Safety Services Association ATSSA.com



Certificate of Completion

presented to

Joseph Cains III

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: March 29, 2022
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Joseph Cains III
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

6/24/2022 to 6/24/2026
Training Valid Through

Director of Training

Baton Rouge, LA
Location

President, CEO

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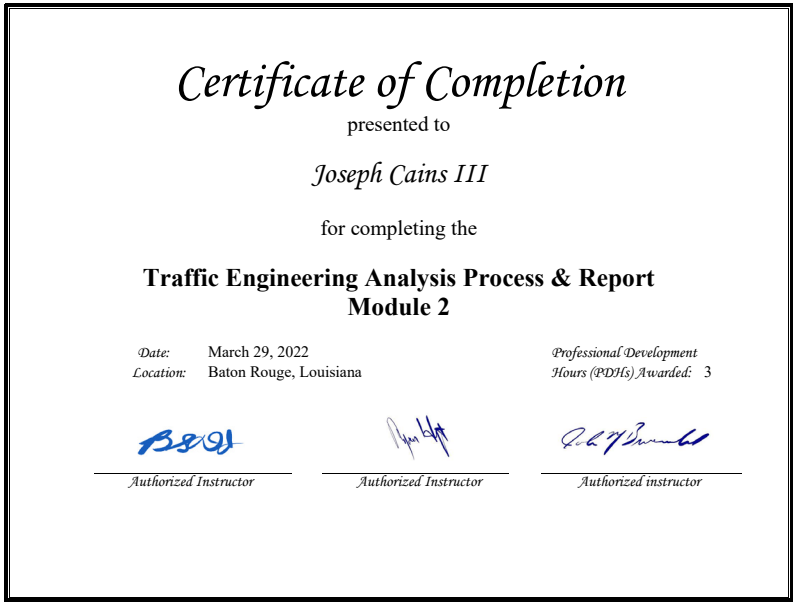
ATSSA American Traffic Safety Services Association ATSSA.com



Certificate of Completion

presented to

Joseph Cains III

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: March 29, 2022
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

Certificate of Completion

presented to

Joseph Cains III

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: March 30, 2022
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor | *Authorized Instructor* | *Authorized instructor*

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Joseph Lefante
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

6/24/2022 to 6/24/2026
Training Valid Through

Baton Rouge, LA
Location

Director of Training
President, CEO

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ATSSA American Traffic Safety Services Association ATSSA.com

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

nhi national highway institute

Certificate of Training

Brian Johnson

has participated in

FHWA-NHI-130053 Bridge Inspection Refresher Training

hosted by

Louisiana Department of Transportation & Development

Date: April 20-22, 2021
Location: Virtual Delivery, LA

Hours of Instruction: 18

Digitally signed by Callein A. MacDougall, P.E. Date: 2021.04.27 13:47:37 -04'00'
Instructor

Digitally signed by Randall Leonard, P.E. Date: 2021.04.22 14:23:51 -05'00'
Randall Leonard. P.E.
Instructor

Allison H. Landry
Local Coordinator

Thomas Harman
Thomas Harman, Director
National Highway Institute

11/17/22, 12:55 PM Profile

View

Certification Type	Professional Traffic Operations Engineer®	**TPCB Status**	Active
Certification Number	3560	**Application Status**	
Application Date Received		**Audit**	Yes
Certification Date	11/20/2013	**Expiration Date**	11/20/2025
Agreed to Privacy Policy	No	**Examination Date**	
Ethics Statement of Renewal	No	**Results**	Passed
Signed Obligation Statement	No	**Date of Initial PE**	
Reasonable Testing Accommodati		**PE License Issuing State**	
Don't Share My Information EU	No	**PE License Number**	0
		PE License Expiration Date	

https://ecommerce.ite.org/imis/TPCB/My_Profile/TPCB/ContactManagement/Profile.aspx 1/1

Transportation Professional Certification Board Inc.

certifies that

Joseph Michael Lefante

has met all of the requirements established by the Certification Board to use the title of

PROFESSIONAL TRAFFIC OPERATIONS ENGINEER

unless withdrawn by the Certification Board and subject to the provisions for renewal.
Certificate number 3560 issued in Washington, D.C. U.S.A.
November 20, 2013

Timothy P. Harpst
Chair

PTOE PROFESSIONAL TRAFFIC OPERATIONS ENGINEER

Executive Director

Certificate of Completion

presented to

Joey Lefante

for completing the

Traffic Engineering Analysis Process & Report
Module 2

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

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized Instructor*

DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Mary O'Rourke
has attended
Traffic Control Technician-LA State Specific
Training Course

2/7/2023 to 2/7/2027
Training Valid Through

Baton Rouge, LA
Location

Vice President of Education and Technical Services

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

ATSSA American Traffic Safety Services Association ATSSA.com

Certificate of Completion

presented to

Joey Lefante

for completing the

Traffic Engineering Analysis Process & Report
Module 3

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

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized Instructor*

DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Mary O'Rourke
has attended
Traffic Control Technician-LA State Specific
Training Course

2/7/2023 to 2/7/2027
Training Valid Through

Vice President of Education and Technical Services

Baton Rouge, LA
Location

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

American Traffic Safety Services Association ATSSA.com

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Michael Neumann
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

6/24/2022 to 6/24/2026
Training Valid Through

Director of Training

Baton Rouge, LA
Location

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

American Traffic Safety Services Association ATSSA.com

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Mary O'Rourke
has attended
Traffic Control Supervisor-LA State Specific
Training Course

2/8/2023 to 2/8/2027
Training Valid Through

Vice President of Education and Technical Services

Baton Rouge, LA
Location

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

American Traffic Safety Services Association ATSSA.com

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Hannah Krebs
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

6/24/2022 to 6/24/2026
Training Valid Through

Director of Training

Baton Rouge, LA
Location

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

American Traffic Safety Services Association ATSSA.com

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

Certificate of Training

NATIONAL HIGHWAY INSTITUTE

JOHN KREBS

has participated in

FHWA-NHI-130053

Bridge Inspection Refresher Training

hosted by

LA DOTD/LTRC

Date: *January 24-26, 2017*
Location: *Baton Rouge, LA*

Hours of Instruction: 18

Instructor

Instructor

Allison H. Landry
Local Coordinator

Valerie Briggs
Valerie Briggs, Director
National Highway Institute

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

John Krebs
has attended
Traffic Control Supervisor-LA State Specific
Training Course

11/30/2022 to 11/30/2026
Training Valid Through

Baton Rouge, LA
Location

Director of Training

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

ATSSA American Traffic Safety Services Association ATSSA.com

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

John Krebs
has attended
Traffic Control Technician-LA State Specific
Training Course

11/29/2022 to 11/29/2026
Training Valid Through

Baton Rouge, LA
Location

Director of Training

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

ATSSA American Traffic Safety Services Association ATSSA.com

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

Certificate of Training

NATIONAL HIGHWAY INSTITUTE

KUNAL MALPANI

has participated in

FHWA-NHI-130053 Bridge Inspection Refresher Training

hosted by

LA DOTD/LTRC

Date: *January 7-9, 2019*
Location: *Baton Rouge, LA*

Hours of Instruction: 18

Instructor

Instructor

Allison H. Landry
Local Coordinator

Michael Davies, Director
National Highway Institute

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Derrick Goudeau
has attended
Traffic Control Technician-LA State Specific
Training Course

8/4/2020 to 8/4/2020
Date

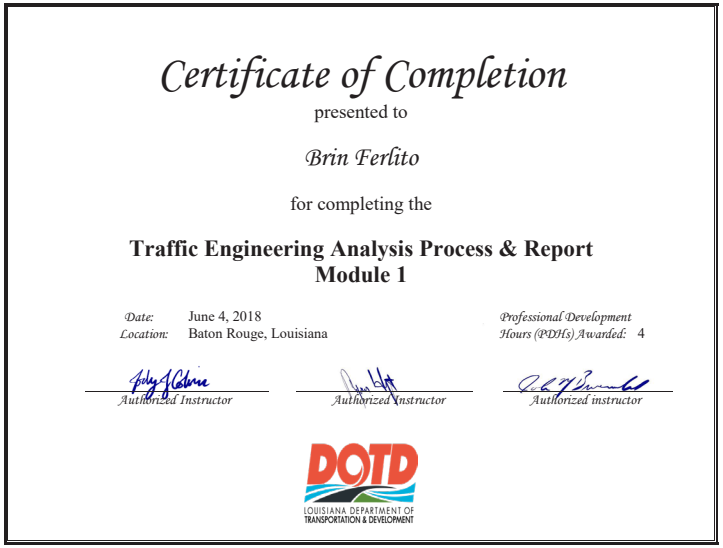
Vice President of Education and Technical Services

Baton Rouge, LA
Location

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

ATSSA American Traffic Safety Services Association ATSSA.com



Certificate of Completion

presented to

Brin Ferlito

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: June 4, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 4

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Derrick Goudeau
has attended
Traffic Control Supervisor-LA State Specific
Training Course

8/5/2020 to 8/6/2020
Date

Vice President of Education and Technical Services

Baton Rouge, LA
Location

President, CEO

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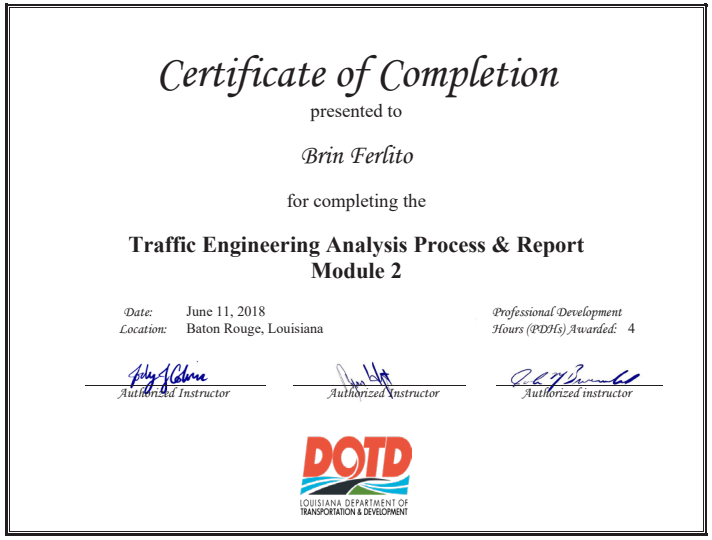

Certificate of Completion

presented to

Brin Ferlito

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: June 11, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 4

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Brin Ferlito

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: September 10, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

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

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

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

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

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

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

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

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

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

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

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

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

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

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

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

Authorized Instructor *Authorized Instructor* *Authorized Instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

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

Authorized Instructor *Authorized Instructor* *Authorized Instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Brin Ferlito
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

4/29/2022 to 4/29/2026
Training Valid Through

Director of Training

Baton Rouge, LA
Location

President, CEO

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This certificate provides proof of training, not certification.

ATSSA American Traffic Safety Services Association ATSSA.com

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Laurence Lambert
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

4/29/2022 to 4/29/2026
Training Valid Through

Director of Training

Baton Rouge, LA
Location

President, CEO

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This certificate provides proof of training, not certification.

ATSSA American Traffic Safety Services Association ATSSA.com

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Reece Rodrigue
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

3/10/2023 to 3/10/2027
Training Valid Through

Vice President of Education and Technical Services

New Orleans, LA
Location

President, CEO

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ATSSA American Traffic Safety Services Association ATSSA.com

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Kristen Farrington
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

4/5/2021 to 4/5/2025
Training Valid Through

Director of Training

Baton Rouge, LA
Location

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

ATSSA American Traffic Safety Services Association ATSSA.com

RTA DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

LOUISIANA UNIFIED CERTIFICATION PROGRAM

Disadvantaged Business Enterprise Program (DBE)

Small Business Element (SBE)

This is to certify that under Title 49, Part 26 of the Code of Federal Regulations & under the State of Louisiana United Certification Program (LAUCP)

Vectura Consulting Services, LLC

Is a Certified Disadvantaged Business Enterprise (DBE) & Small Business Element (SBE) in the following specialties:

NC488490, NC541330, NC541340

NOTE: There may be other approved NAICS Codes. The online DBE Directory includes a complete list of approved codes.

Certificate Eligibility: June 2023 to June 2024

This certificate is valid through the above date provided. This firm meets the on-going programmatic standard and fulfills the annual update requirement to remain in good standing as a DBE. This certification is subject to annual verification and suspension or revocation based upon reasonable cause to believe that the firm is ineligible.

Rhonda Wallace

Rhonda Wallace, DBE/SBE Programs Manager

Louisiana Department of Transportation & Development


American Traffic Safety Services Association

This is to affirm that

Sheelagh Ferlito

has satisfied the requirements to be designated as a

CERTIFIED FLAGGER

Issue Date 5/9/2023

Exp. Date 5/8/2027

State Issued LA

ATSSA

Instructor Name

Instructor Signature

A1000126216

Verify at Flagger.com


Certificate of Training

this certifies that

Reece Rodrigue

has successfully completed the training program requirements for

ATSSA Online Flagger Certification Training Course

Awarded on this 24th day of September 2020


American Traffic Safety Services Association

This is to affirm that

Laurence Lambert

has satisfied the requirements to be designated as a

CERTIFIED FLAGGER

Issue Date 5/9/2023

Exp. Date 5/8/2027

State Issued LA

ATSSA

Instructor Name

Instructor Signature

A1000126196

Verify at Flagger.com


AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION

This is to affirm that

Kristen Farrington

has satisfied the requirements to be designated as a

CERTIFIED FLAGGER

Expiration Date 7/5/2025

State Issued LA

Instructor Signature

Verification available by calling 1-877-642-4637 or at http://www.flagger.com

21. **QA/QC Plan and/or Work Plan:**
If the advertisement requires submission of a QA/QC plan or Work plan, include them here. Otherwise, leave this section blank. If a QA/QC plan is included in this section and was not required by the advertisement, it will be redacted.

Please see attached QA/QC Plan on the following pages.

Quality Management Plan

CONTRACT NO. 4400028432
STATE PROJECT NOS. H.015569.5
FEDERAL AID PROJECT NO. H015569
LA 44: I-10 ROUNDABOUTS

Stantec Project No.: TBD

_____
Nick Prudhomme, P.E. – Project Manager

_____
Cindy M. Hall, P.E. – Principal-in-Charge

Document Date: February 3, 2024

Table of Contents

Foreword

Stantec recognizes the importance of quality for the LA44: I-10 Roundabouts Contract. We are committed to developing, implementing, and adhering to a detailed Quality Management Plan for all services provided as part of the Project. In addition, since the Project has significant road and bridge components, our team is committed to the principles dictated in the LADOTD, Road Design Section "Construction Plans – Quality Control / Quality Assurance Manual" and the LADOTD Bridge Design Section, "Policy on Quality Control and Quality Assurance's Construction Plans".
This Quality Management Plan (**QMP**) is a "living document". As such, it will periodically be reviewed for performance and amended as necessary to achieve the quality commitments and goals. This QMP will also be amended as the Project moves into future phases of development.

In our commitment to quality, this **Quality Management Plan (QMP) will satisfy all criteria by**:

A. Creating guidelines, processes and protocols which clearly demonstrate that QC/QA is the full responsibility of our team and not a responsibility of the LADOTD.
B. Creating clear definitions of responsibility for our designers, checkers, reviewers, and various professionals of record.
C. Assigning designers and QC/QA personnel to the Project, who are exceedingly qualified to perform the work required of the Project.
D. Creating Project specific processes and protocols which are clearly described and effective in ensuring accuracy in our design and plan details.
E. Creating all the necessary QC/QA tools, such as checklists, standard forms and training materials. All our QC/QA tools will be well documented and well suited to the scope and the complexity of the Project.
F. Creating a focus on the QC/QA concepts for the bridge design elements of the Project by defining specific quality procedures for the major structures of the Project; describing how the QMP will support quality work for the Project; and creating clear definitions of QC/QA.
G. Provide training to all personnel working on the Project specific to their role in the Project.

The **goals of the QMP for this Contract** are to:

- Increase the probability of meeting the LADOTD's expectations in terms of the finished product
- Improve analysis and design solutions
- Provide adequate detail on plans
- Reduce errors in reports and plans
- Reduce constructability issues
- Maintain schedule through all project phases
- Allow for efficient and effective innovative solutions, materials and techniques
- Minimize community impacts
- Enhance worker and public safety
- Minimize construction related traffic disruptions
- Accurately mitigate impacts of unforeseen conditions and events

This QMP conforms to the current LADOTD Road Design CONSTRUCTION PLANS QC-QA MANUAL and the current LADOTD BRIDGE DESIGN AND EVALUATION MANUAL (BDEM) for structural elements.

This **QMP** contains seven (7) appendixes:

- APPENDIX A: GUIDELINES FOR DESIGN & DOCUMENT PREPARATION
- APPENDIX B: GUIDELINES FOR PROCESSES
- APPENDIX C: QC CHECKLIST & COMMENT FORMS
- APPENDIX D: QA CHECKLIST & COMMENT FORMS
- APPENDIX E: INDEPENDENT REVIEW & COMMENT FORM
- APPENDIX F: LADOTD ROAD DESIGN QC/QA PLAN
  - F1: 60% PRELIMINARY ROADWAY PLANS QA CHECKLIST
  - F2: 90% PRELIMINARY ROADWAY PLANS QA CHECKLIST
  - F3: ROAD DESIGN 100% PRELIMINARY PLANS QA/QC
  - F4: ACP FINAL ROADWAY PLANS QA CHECKLIST
  - F5: ROAD DESIGN FINAL PLANS QA/QC
  - F6: TMP CHECKLIST
- APPENDIX G: LADOTD BRIDGE DESIGN QC/QA PLAN
  - G1: LADOTD BRIDGE DESIGN (DESIGN CRITERIA CHECKLIST)
  - G2: LADOTD BRIDGE DESIGN (FINAL CALCULATION BOOK CHECKLIST)
  - G3: LADOTD BRIDGE DESIGN (QA INFORMATION PACKET CHECKLIST)
  - G4: LADOTD BRIDGE DESIGN (QC/QA CERTIFICATION)
  - G5: LADOTD BRIDGE DESIGN (PEER REVIEW RESOLUTION AGREEMENT)
  - G6: LADOTD BRIDGE DESIGN (CONSULTANT PROJECT BRIDGE DESIGN KICK-OFF MEETING AGENDA CHECKLIST)
- APPENDIX H: NON-CONFORMANCE REPORT FORM

This **QMP** will be distributed to all team members and reviewed to confirm understanding. All team members will be trained so that they understand their role and obligation in implementing the QMP. All personnel shall be held accountable to these high standards.

Revision Summary

To be completed by document owner and/or originator of revisions prior to issue to team.

Revision	Date	Section	Summary of Revision
0.0	2/06/2024	N/A	Transmitted to LADOTD in 24-102

Required Reading Form

All members of this LA 44: I-10 Roundabouts Contract – Designers, Checkers, Reviewers, and Professionals of Record shall become acquainted with the contents of this document and related attachments. As a record of responsibility of the team, and a record of accountability by Stantec, this form shall be maintained on the Project.

Name	Signature	Date

SECTION 1. UNDERSTANDING OUR ROLE

1.1 STANTEC PHILOSOPHY AND POLICY ON QUALITY (ISO 9001 5.1, 5.2 AND 5.3)

Stantec clearly understands, and believes, that the responsibility for Quality in our services and deliverables is 100% ours. In satisfying the LADOTD's Policy on QC and QA, this QMP creates a commitment to continual improvement of project execution, product quality and the reduction of quality related costs. We believe that RESPONSBILITY is created through processes and guidelines that are integral to our team's thinking. We believe that ACCOUNTABILITY is created through purposeful reporting and measured results by our leaders. And we believe that SUCCESS is created by our team's ownership of the **QMP**. To this end, Stantec will provide experienced leadership, specifically tasked with developing, maintaining, enhancing, and monitoring the performance of the overall system of quality for the LA 44: I-10 Roundabouts Contract.

1.2 QUALITY MANAGEMENT PLAN PHILOSOPHY

A critical component of our **QMP** will be to ensure that all Stantec staff involved in the Project are aware of the **QMP** and committed to following its direction. Our QC/QA Manager is responsible for providing Project staff with a copy of the **QMP** and encouraging its use throughout the life of the Project. This goal will be accomplished through an initial training process supplemented with ongoing training to present process revisions based on the results of QC/QA reviews and Project audits. In addition to our **QMP**, each Project team member, regardless of his/her role, will be responsible for the quality of his/her own work and will be expected to provide an appropriate level of quality control on that work.

1.3 QUALITY MANAGEMENT PLAN PRINCIPLES

The guidance for quality management of Stantec projects will be based on three quality principles:

- Client focus
- Project processes
- Measurement, analysis, and improvement

1.3.1 Client Focus

Stantec knows and understands that our future depends on our Clients – which equates to satisfaction with our company and services. Therefore, our primary focus is to understand our Client's current and future needs, while continually striving to meet and exceed our Client's requirements and expectations.

For our Clients, our focus is on "**MAKING IT WORK**". We maintain this focus by:

- **Knowing our Client's View** – we strive to know what the expectations are within our Client's organization, including such things as design philosophy, cost expectations, and project purpose.

- **Knowing our Client's People** - we focus on relationships by knowing the point-of-contact for our Clients and understanding "who does he/she report to?", or "what is her background on this type of project?", or more personally "what makes him really excited? Or upset?"

- **Knowing our Client's Scope** – we strive to completely understand project requirements. We want to appreciate "what's behind that?" and pursue it until we get answers like, "that's very important to the project outcome," or "that's crucial to project approval," or "that's a particular area of project distinction".

- **Knowing our Client's Risk** – we appreciate and attempt to understand our Client's important issues such as "what keeps him up at night?"; or "what will create problems for her?"; or in a positive way, understanding "what outcome will give greatest value", or "what outcome will give greatest satisfaction."

Another area of Client focus is critical attention to project **time, cost, and deliverables**. Stantec understands that these three factors have an impact on each other and requires evaluation - taking into consideration our Clients' requirements and expectations. We realize that on some projects - or with some Clients - the balancing of these three factors can be particularly delicate. Client focus in these cases is all about our ability to communicate and deliver the basic project requirements while managing expectations and outcomes.

Our Client focus always involves **effective communication**. Our goal is to be continual and timely, thus creating and building confidence with our Client that their expectations are being met and value is being achieved.

Stantec's Client focus also includes **interfaces with all Stakeholders**. These interfaces are crucial to Project success in facilitating the exchange of information, as appropriate, throughout the project. Our focus on behalf of the Client includes resolution of any conflicts between project requirements and Stakeholders requirements – with Client requirements taking precedence, except in the case of statutory or regulatory requirements.

Our focus on "MAKING IT WORK" becomes the Project's Quality Objective - not only for deliverables, but also for our Client's needs and expectations. This Quality Objective outlines the path to a high level of Client satisfaction.

STANTEC QUALITY CONTROL/QUALITY ASSURANCE CONCEPTS & DEFINITIONS

Our concept for QC/QA on this LA 44: I-10 Roundabouts Contract follows proven methods which include process controls, detailed QC procedures, QA reviews, and continual maintenance and updating of the **Project Design Criteria**. As a management tool of our **QMP**, quality audits and management reviews will also occur. The **QMP** is a living document that will be reviewed and amended throughout the Project cycle in a commitment to continual improvement.

Additionally, our **QMP** will support quality work through Independent Checks focused on Consistency, Constructability and Risk avoidance.

The following definitions of quality management, quality control and quality assurance will apply to the LA44: I-10 Roundabouts Project.

Checking Stamp	An electronic or rubber stamp to be affixed on all QC documents and to be used as part of the **Five Step Process** for all **QC Checking**.
Five Step Procedure	A detailed checking procedure to be followed by all **QC Checkers.**
Independent Review	As part of the QA Review, an Independent Review will include one (are more) of the following: • **Consistency review** of the plan details to assure uniformity of design, detailing, format and presentation; • **Constructability review** of the plan details to identify possible design improvements to make construction easier, safer and less costly and/or reduce environmental impacts; • **Operational Review** to understand how the Project functions, how it can be more user friendly and easier to maintain and how the design can be made more efficient; and, • **Risk review** of areas of critical importance; areas where, based on the reviewer's experience, mistakes may be typically found; and areas that may be new to the design practice.
Inter-Discipline Reviews	A review focused on specific discipline elements or coordination between different disciplines – includes survey, roadway and bridge; bridge and geotechnical; roadway and traffic; etc.
Management Review Meetings	Review by Project leadership and QC/QA leadership to measure QC/QA compliance at various Project milestones. Review will also include

	effectiveness of the **QMP** with the objective of continual improvement.
Primary QC Signature	Signature by Project Manager / Discipline Leader on all submittals and documents prepared under their control.
Quality Control (QC) Submittal Checking	Every work product requires a full review. Work products include plans, cost estimates, reports, evaluations, or studies. For the various submittals, responsibilities may include: • **Checking** for completeness in accordance with guidelines approved by the Project Manager or Discipline Leader; • **Ensuring** that the work product adequately and accurately presents the required information; • **Verification** of all dimensions and quantity calculations; • **Verification** of the accuracy of the preparer's work product; • **Verification** that all design information is correctly and completely shown on the details and in accordance with the approved design calculations; • **Verification** of conformance to standards of practice; • **Verifications** of cost effectiveness & fitness for the purpose and function of the specified Project; • **Performance** of CAD drawing reviews for formatting, layering and CAD Conform requirements; and • **Performance** of redline checks of the work product (where deemed necessary); or production of an independent work product and comparison of the results.
QC Design Checking	A full review of the design calculations, survey calculations, software input and output, and cost estimates. Responsibilities will also include: • **Verification** of the accuracy and adequacy of the preparer's work product; • **Compliance** with specified codes, standards, and permits; • **Conformance** to standards of practice; • **Performance** of redline checks of the work product; or production of an independent work product and comparison of the results; and • **Ensuring** that the work product adequately and accurately presents the required information. (The calculations of the Design Checker will also become a part of the calculation of record when independent checking calculations are produced.) (The Design Checker will not be the one who performed the original design.)
Quality Assurance (QA) Review	A review of QC documents to ensure that the QC process is complete and the work products (field rolls, designs, plans, cost estimates, reports, evaluations, and studies) are in accordance with the established Project practices, policies,

	and procedures.
QA Information Package	Package of Quality Control documentation submitted to the QA Reviewer. QA Information Packages will be prepared for all Project submittals and shall include appropriate designs, plans, cost estimates, reports, evaluations, or studies. QA Packages will include all QC documentation of the Project submittal such as calculations, plans, and estimates of probable construction costs and include checklists, comments and markups by the Project Professional, Design Checker and Detail Checker.
Quality Management Plan (QMP)	The documented requirements that establish and define responsibilities, performance measures, milestone audits and work procedures to ensure that the project deliverables meet predetermined requirements. It encompasses Quality Control, Quality Assurance, and Audit of the scope of work covered by the Project.

SECTION 2. QUALIFICATIONS AND RESPONSIBILITIES OF STANTEC LEADERSHIP AND STAFF

The following qualifications and responsibilities will apply to the leadership and staff of the Stantec team on the LA 44: I-10 Roundabouts Contract.

Designer

Engineer (LA licensed PE or EI) directly tasked with the development of design calculations, drawings, and estimates of probable construction costs. Responsibilities will include:

- Understanding and following the Project Design Criteria;
- Developing, organizing and maintaining design calculations;
- Communicating with the detailer and supervising the detailing work to ensure adequate and accurate presentation of design information;
- Checking his/her own work; and
- Updating design calculations to correct any errors or omissions discovered by the Design Checker.

Detailer

Individual directly responsible for the creation of CAD drawings. Responsibilities will include:

- Understanding of drawing formats;
- Understanding of layering requirements;
- Understanding of LADOTD's CAD Conform requirements; and
- Checking his/her own work for accuracy and completeness. .

Project Manager

Professional (LA licensed as required) (in most cases a Louisiana licensed PE) tasked with the duty to lead the Stantec team, with the following experience and responsibilities:

- **Experience** – Professional with technical and management experience of projects with similar scope and magnitude.
- **Responsibilities**
  - Serve as overall project leader and liaison with the LADOTD;
  - Develop and monitor overall project scope, schedule and budget;
  - Identify and obtain approval of any scope changes (when required);
  - Monitor the overall project development, deadlines and deliverables;
  - Work and coordinate with all Discipline Leaders through the

progression of the Project;

- Determine all required Inter-Discipline and Independent Review requirements of the Project;
- Establish and monitor protocol and procedures for communications with LADOTD, stakeholders and Discipline Leaders;
- Establish procedures for identifying and resolving project conflicts, constraints and other risks;
- Conduct Project Reviews to identify and track key issues, and provide recommendations for function and efficiency improvements. (Depending on the magnitude and schedule of the Project, reviews can also be post-mortem.)
- Monitor the overall QMP for QC/QA, including systems for tracking progress and completion;
- Accept final work products;
- Track and verify overall project archiving;
- Sign, or delegate responsibility to sign, all Deliverable Release Forms
- Collaborate and effectively communicate with Stantec team;
- Lead meetings, forums and discussions with LADOTD, stakeholders, and Discipline Leaders in Project development and Project decisions;
- Assign and manage resources to execute the work in accordance with the Project schedule;
- Ensure checking and review by appropriate senior individuals that all deliverables are in accordance with the Project Design Criteria, the QMP for QA/QC, and LADOTD standards.
- Establish written agreement for the scope and budget for the Project;
- Achieve budget through effective control of the work;
- Provide prompt identification and submission for formal approval of all scope changes to the Client;
- Archive all Project data and Project deliverables (including surveys, designs, plans, cost estimates, reports, and studies) in accordance with the QMP.

Discipline Leader

Professional (LA licensed as required) assigned to the specific discipline of the Project (Environmental, Surveying, Geometrics, Traffic, ITS, Roadway, or Bridge) and responsible for supervision and/or preparation of all deliverables and submittals as defined by the Project Scope for the assigned Discipline. Experience and responsibilities will include:

- **Experience** – Professional (LA licensed as required) with experience

in executing similar Discipline assignments.

- **Responsibilities**
  - Collaborate and communicate on a regular basis with the Project Manager;
  - Take full responsibility for providing Discipline scope and schedule;
  - Develop, update and implement the Project Design Criteria as related to the Discipline;
  - Oversee the development, organization and maintenance of design (where required) and submittals as related to the Discipline;
  - Identify activities required for completion of the work for the Discipline;
  - Maintain a project deliverable list for the Discipline;
  - Maintain matrix (or list) of staff assigned as originators and checkers of the work product by the Discipline;
  - Determine the necessary technical knowledge and experience required for all Discipline activities;
  - Lead and guide the Discipline staff required for execution;
  - Oversee all procedures and forms related to the Disciple;
  - Approve and validate all software used by the Discipline staff;
  - Develop (as required) and adhere to Process Guidelines (PG's);
  - Sub-consultant oversight (as assigned) within the Discipline;
  - Inter-discipline Reviews (IDR) - as initiator or participant; and
  - Implement the **QMP** for QC and QA to be performed for the Discipline.
  - **Appendix F contains special provisions for Roadway QC/QA. These special provisions outline additional and/or revised responsibilities for the Roadway Discipline Leader.**
  - **Appendix G contains special provisions for Bridge QC/QA. These special provisions outline additional and/or revised responsibilities for the Bridge Discipline Leader.**

Engineer-of-Record (EOR)

Engineer (LA licensed PE), designated by the Project Manager, responsible for supervision and/or preparation of plans, sealing calculations, plans, and special provisions. (The EOR can be the Designer, Design Checker, QA Reviewer, or Project Manager - who is directly involved in the project design activities.) The responsibilities of the EOR include:

- Ensure the QC/QA certifications are signed by all responsible parties
- Assemble design calculations from all designers, finalize the calculation book, and seal the cover sheet of the calculation book

- Ensure the names of the Designer, Design Checker, Detailer, Detail Checker, and QA Reviewer are correctly shown on the title block of each plan sheet
- Stamp all plan sheets or designate a Designer, Design Checker, or QA Reviewer developed under their supervision
- Ensure all special provisions are accurately shown on the construction proposal and stamped by the Specification Engineer (or by the EOR).

Independent Reviewer (IR) — Engineer (LA licensed PE) responsible for conducting a totally independent review of all Project document and final deliverables. The Independent Reviewer and QA Reviewer may be the same and also occur at the same time.

QA Reviewer — Engineer, Surveyor or appropriate Professional (LA licensed PE or PLS where required) assigned QA Review responsibilities. The Reviewer must have experience related to the Project discipline.

QC Design Checker — Engineer (LA licensed PE) assigned QC Design Checking responsibilities.

QC Submittal Checker — Engineer, Surveyor or appropriate Professional (LA licensed PE or PLS where required) assigned QC Submittal Checking responsibilities.

QC/QA Leader — Engineer (LA licensed PE) responsible for coordinating the Quality Management practices across the Project and to ensure implementation of the **QMP** for the Project. Duties also include:

- **Establish** Process Controls and overall QMP for QA/QC;
- **Provide** QC and QA oversight;
- **Prepare** Quality Audit Reports (Proof of Compliance) to track quality trends, solicits feedback from the LADOTD on quality related issues;
- **Attend** Management Review Meetings conducted by the Project Manager and prepare report of findings and recommendations for improvement; and
- **Sign** Delivery Release Record attesting that all QC/QA documentation has been properly completed and authorized for release of the submittal.

SECTION 3. DESCRIPTION OF THE QC, QA & IR PROCESSES

3.1 QUALITY MANAGEMENT PLAN

The Quality Management Plan for the LA 44: I-10 Roundabouts Contract includes formats and templates for QC and QA that have been successful on many past projects. Our QMP processes will also focus on the following:

- **High risk elements** which may include complex roadway geometrics, complex structures, and unique project elements;
- **Rigorous verification elements** such as project geometrics; and
- **Refinement elements** such as roadway profiles and bridge design elements with a high level of repetition - where efficiency of detail could yield financial benefit.

3.1.1 Project Meetings

Project meetings required for the LA44: I-10 Roundabouts Contract task orders are as outlined and described in the Scope of Work. All project meetings will be guided by the principles and requirements as detailed in the **Process Guideline (Project Meetings)**.

3.1.2 Process Control

As required for more complex projects, this document should outline all aspects of preconstruction activities, design guidelines, environmental requirements, permitting, specifications, right-of-way, utility relocations, estimates, and financial.

Process control may include the following:

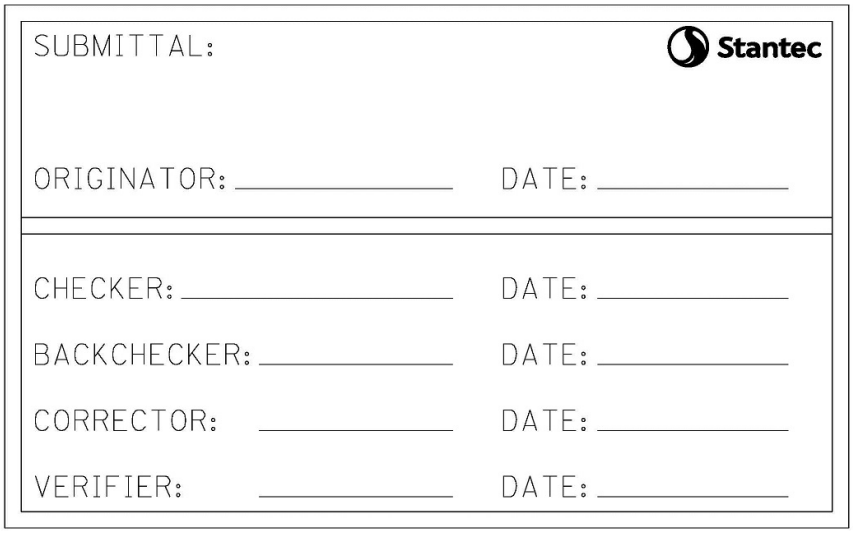
- Identify, confirm, document and communicate objectives, deliverables, schedule, work plan, standards and analysis methodology
- Obtain confirmation, and approval where required - by the LADOTD and other stakeholders
- Confirm the information provided for project implementation is complete and accurate
- Review site conditions, particularly those areas where conflicts and constraints may affect design or constructability
- Maintain a documented, indexed and traceable record of all work in a format that allows the project team access to all pertinent project information
- Ensure all deliverables are signed and stamped in accordance with LADOTD requirements
- Provide all documentation to the designated quality control checkers and quality assurance reviewers, including Non-Conformance Reports

3.2 QUALITY CONTROL

Quality control (**QC**) is the responsibility of each individual undertaking a component of the work. To assist in this process, the **Project Manager** will establish as part of this **QMP** responsibilities and procedures for checking technical accuracy of the work, identifying and correcting any discrepancies, rejecting product not meeting requirements if necessary, and accepting the final work product as well as defining the frequency of implementing some or all of the procedure and reviewing procedural performance. It is expected that this procedure will include checks by individuals knowledgeable of the technical requirements for a particular activity and with the relevant qualifications and experience in the discipline.

QC reviews will be conducted for all submittals at the required LADOTD Milestones. The **Project Manager** will work with the **Discipline Leaders** to identify **QC** reviews and who will have responsibility for **QC** of these reviews. As part of the **QC** accountability, the **Discipline Leader** will be the **Primary QC Signature** on all submittals and documents prepared under their control. As part of this **QMP, Discipline Leaders** will be responsible for the following:

- Complete **Section 4** of the **QMP** by assigning **QC Design Checkers** and **QC Submittal Checkers** possessing the technical skills, relevant qualifications and experience required to complete these efforts;
- Utilize the checklists included in **Appendix A**, or create checklists to assist in the reviews and provide documentation of the review;
- For **QC Design & Submittal Checking**, a **Five Step Procedure** will be used. For this purpose, the **Checking Stamp** shown below will be used. The **Checking Stamp** is available as an electronic image or a rubber stamp which must be affixed to the documents.



Checking Stamp

3.2.1 Five Step Procedure

Step 1. Once **Designer** & **Detailer** complete calculations and plans a **Check Print Stamp** will be placed on calculations and plans indicating a submittal name/division. **Designer/Detailer (Originator)** will sign and date on calculations/plans, and will provide calculations and/or plan sets to the **Checker**.

Step 2. The **Checker** will indicate with a highlighter that he/she agrees with, and use red marks that he/she would like to make comments. **Checker** will sign and date the calculations and/or plan sheets being checked and give it to **Backchecker** (can be the same person as the **Originator**).

Step 3. **Backchecker** will go through all the comments made by the **Checker**. If he/she agrees he/she would put a green check beside the **Checker's** comments. But if the **Backchecker** disagrees with the **Checker's** comment, he/she will resolve the disagreement with the **Checker**. If the **Checker's** comments needs to be changed the **Backchecker** will strike through the **Checker's** comments and update it using a **green pen**. The **Backchecker** will sign and date it.

Step 4. **Corrector** (can be the same person as the **Originator**) will correct all comments which are agreed upon. Once the correction is made he/she will circle the changes with a **green pen**. **Corrector** will sign and date it, he/she will give it to **Verifier**.

Step 5. **Verifier** (can be the same person as the **Checker**) will verify all changes, and will highlight the **green circles**. He/She will sign and date it to complete the process.

Quality Control Records will be checked documents *(including evidence of checking, evidence of verification, evidence of interdisciplinary review, and evidence of approval)*, memoranda, meeting notes, or checklists specific to the task.

3.2.2 Quality Control (LADOTD Requirements)

Refer to Appendices 'F' and 'G' for details on completing **LADOTD Road** and **Bridge QC/QA**. These procedures are tailored to satisfy the **LADOTD, Road Design Section, "Construction Plans QC-QA Manual",** and **Bridge Design Section, "Policy on Quality Control and Quality Assurance's Construction Plans."** These procedures augment the procedures described herein and are **required for all LADOTD work products**.

Quality Control (QC) Road will have the responsibilities as detailed in Appendix 'F'. **Quality Control (QC) Bridge** will have the responsibilities as detailed in Appendix 'G'. In addition, **QC** will also include:

- For the simple and moderately complex elements of the Project, create checklists to assist in the reviews and provide documentation of the review.

- For the high-risk elements and complex structural components of the Project, institute the use of independent modeling and QC by independent design teams, rather than line-by-line checking to make sure that both math and methodology are checked in an effective way.
- Create Process Guidelines (PG's) as the basic tool to define standards, outline technical approaches, and define the salient points and objectives of design. PG's will be developed by Discipline Leaders and other senior technical staff.

  Particular components of the PG's will include:

  - "Complex" Element PG's - will also establish protocols for elements defined as "complex" in preparing independent analyses and required calculations to ensure true independence for comparison to the original analyses and calculations used to perform a QC check of the bridge plans.
  - Bridge PG's – create protocols to identify software to be used, the methodology and approach to structure interactions, construction preferences for materials and methods, specific LADOTD criteria, and project specific criteria. The purpose of the PG's is to serve as clear guides to keep design efforts focused and coordinated.

3.3 QUALITY ASSURANCE

As part of this **QMP,** the Quality Control/Quality Assurance (QC/QA) Manager will establish the following:

- Assign Quality Management Personnel (QA reviewers) for the Project and ensure these individuals possess the technical skills, relevant qualifications and experience required to complete the efforts (in particular, the bridge aspects of the project) (These individuals are summarized in Section 4);
- Verify that Quality Assurance (QA) Information Packages have been properly prepared for the QA reviewer's use;
- Complete the required QA certification (signed by the appropriate QA reviewer);
- Document QA reviewer's comments;
- Reconcile, and/or develop accepted course of action;
- Prepare QA Review Comment Form Reports or Non-Conformance Form Reports as appropriate to deal with issues noted in the review; and
- Confirm that all issues raised and actions identified are addressed.

3.4 INDEPENDENT REVIEW AND CONSTRUCTABILITY REVIEW

An independent individual/team will be identified to develop additional ideas to assure that enhance innovation and construction for the Project.

As part of the QA Review, an Independent Reviewer will be designated and identified in the Section 5, Quality Management (QC/QA) Personnel. The Independent Reviewer will perform consistency, constructability and risk reviews as defined in Section 2 of this document.

3.4.1 Document and Data Control

Quality related records, including hard copy and digital file documentation, will be received and maintained in accordance with Stantec best practices.

These records will include the following:

- Copy of the **QMP** and all revisions to the plan
- Copy of all **Quality Control** checklists and certifications for each milestone review
- Copy of all **Quality Assurance** certifications for each review
- Copy of all **Design Review Comment Forms**, **Non-Conformance Reports** and evidence of the corrective action and subsequent compliance for **QC** and **QA** reviews

3.4.2 Control of Sub-Contracted Work

Sub-consultants will be required to provide a copy of their QMP for review by Stantec; or, be required to follow the Stantec **QMP**.

3.4.3 Control and Correction of Non-Conforming Work

Identified deviations from designs or non-conformances need to be assessed, documented, and communicated to affected parties. This process will be handled through Design Review Comment Forms and Non-Conformance Reports (NCRs).

The corrective action taken and any preventative actions identified as being appropriate to prevent future occurrences will be documented.

3.5 PROJECT DESCRIPTION AND SCOPE

3.5.1 Disciplines/Tasks

Project elements included in the QC plan will be applied to all project deliverables produced by the Project for the following disciplines/tasks:

- Topographic Survey & SUE Services
- Roadway, Geometric Design and Analysis, Drainage
- Bridge Design
- Hydraulics
- Traffic Engineering
- Geotechnical Engineering

SECTION 4. QUALITY MANAGEMENT (QC/QA) PERSONNEL

List of Personnel Assigned to Quality Management Tasks per Activity	**Project Manager** – Cindy Hall, PE
Roadway, Geometrics and Drainage	
Designer(s)	Michael Neumann, PE; Mary Frances O'Rourke, PE; Hannah Krebs, PE
QC – Design & Plans	Nick Prudhomme, PE, Joseph Cains, PE
QA – Design & Plans & Independent Review	Cindy Hall, PE; Gary Heitman, PE
Bridge	
Designer(s)	Kunal Malpani, PE; Maggie Ye, PE
QC – Design & Plans	John Krebs, PE
QA – Design & Plans & Independent Review	Brian Johnson, PE; Gary Heitman, PE
Traffic Engineering	
Designer(s)	Reece Rodrigue, PE; Kristen G. Farrington, PE
QC – Design & Plans	Sheelagh Brin Ferlito, PE; Laurence Lambert, PE
QA – Design & Plans & Independent Review	Joey Lefante, PE

Appendix A: Guidelines for Document Preparation

A.1 Purpose and Scope

A.1.1. The purpose of these Guidelines is to establish a method for consistently delivering quality project work that meets client needs and prevents rework.

A.1.2. These Guidelines are mandatory and apply to all project work.

A.1.3. Methods for rework prevention include reviewing project input; checking and verifying project work by someone other than the **Originator**; conducting **Interdisciplinary Reviews**, where required; and **Approving** project work for further use or delivery.

A.1.4. It is recognized that some projects do not result in the "traditional" deliverables of calculations, designs, contract documents, studies/reports, etc. Nonetheless, the principles underlying **Checking** and **Verification** must be applied.

A.1.5. These Guidelines are to be supplemented by Appendix F – **LADOTD Road QC/QA** and Appendix G – **LADOTD Bridge QC/QA**

A.2 Preparation of Calculations

A.2.1. Terms and Definitions

A.2.1.1 Calculations – Mathematics-based computations that transform input data into a result that is used as further input to the delivered project work, or is delivered directly to the client to meet contract obligations.

A.2.1.2 Assumptions – Estimated or presumed information used as input to a calculation.

A.2.1.3 Confirmation – Verification that an assumption was correct based on actual data.

A.2.2. Procedure

A.2.2.1 Calculation Preparation

(i) **Discipline Leaders** shall assign qualified individuals the task of preparing calculations and are responsible for monitoring compliance with this guideline.

(ii) **Calculations** are to be neat, legible and suitable for reproduction. They are to be prepared using company calculation pads, where available, including a header with space for identifying the calculation title, page numbers, project name and number, and the **Originator's** and **Checker's** names, initials and dates.

(iii) **Calculations** must be organized and logically presented, and are to include sufficient notes, explanations and sketches to make the calculation easily followed. The intent is to make calculations understandable by an individual competent in the subject matter without going back to the originator.

(iv) The following information should be provided in the calculation, or on a cover or summary page:

(a) Objective – A statement of the problem or question to be solved (if not obvious from the title).

(b) Method – Identify the methods to be used, including software.

(c) Assumptions – Clearly state any assumptions applied.

(d) References and Inputs – Identify the inputs and the references for inputs, equations, methods, etc. Design inputs used as the basis for calculations shall be verified by the **Originator** as obtained from a reliable source. Design equations, tables, field data, etc., shall be referenced to the specific section of the applicable design code or manual. Any information not readily available to a reviewer should be attached as an appendix to the calculations.

(e) Conclusions – Clearly state the conclusions of the calculations including any limitations, conditions and/or exceptions.

(v) Confirmations – Critical assumptions need to be tracked and confirmed by the **Originator** as soon as valid and current data becomes available. The impact of any variances between assumptions and confirmed information must be evaluated, and any necessary revisions to calculations made.

(vi) In assembling larger sets of calculations, or where providing summary information will be useful, the use of a calculation cover page may be helpful.

(vii) Prior to the results of a calculation being utilized for subsequent design work, relevant calculations shall be checked and verified in accordance with **Checking** and **Verification Procedure** and documented accordingly.

A.2.2.2 Computer Calculations

(i) Computer calculations shall include or reference documentation clearly explaining the program's function, nomenclature, and sign conventions utilized. All technical software must be validated in accordance with the **Software Validation Procedure**.

(ii) Calculations utilizing computer programs to perform analyses or design shall include the following:

(a) Name of the program including version or revision level.

(b) Paper copies of computer output files, or portions thereof, that are required to satisfy the documentation requirements of this procedure shall be labelled and filed.

(c) Identification and/or location of associated electronic files.

(iii) Spreadsheet calculations shall be documented and organized so that formulae used in the spreadsheet can be checked for accuracy of incorporation into the spreadsheet, using a calculator or other method. After validation of the spreadsheet calculations the spreadsheet shall be protected to prevent inadvertent modification of the embedded formulae.

A.2.2.3 Revisions to Calculations

Revisions (or cancellations) may be required after an initial set of calculations has been reviewed. These revisions may be a result of client comments, scope changes, or errors found during subsequent reviews. Revisions to the calculations do not necessarily warrant a second review of the entire set of calculations. Only the revised portion of the calculations may need to be reviewed. Required revisions shall, therefore, be completed as follows to appropriately document the revisions made:

(i) Revisions shall be reviewed and approved in the same manner as the original. The **Originator** and **Reviewer** of the calculations shall be responsible for the revision. The revision to the calculation shall be clearly identified and dated or shall be replaced by a new calculation.

(ii) Revisions shall be prepared in a manner that provides a clear record of the content of the calculation, both prior to and after the revision. The reason for the revision should be identified.

(iii) Revisions to calculations that impact other disciplines shall be immediately reported to the **Project Manager** and the affected disciplines.

A.2.2.4 Control of Calculations

(i) All calculations shall be organized and adequately indexed to facilitate retrieval of results and verification of completeness. A calculation index may be useful as a tool to help plan and organize the work, or may be developed upon completion of the calculations for record and archival purposes.

(ii) On completion of the calculation review process, original calculations including calculation cover pages, checklists, index pages and other associated documents shall be controlled.

A.3 Preparation of Studies/Reports

A.3.1. Terms and Definitions

A.3.1.1 **Technical Study or Report** – A hardcopy or electronic document based on technical information gathered and evaluated with professional insight and delivered to the client. Generally, a technical study or report contains conclusions and often contains recommendations.

A.3.2. Procedure

A.3.2.1 Style and Format

(i) The report should be prepared following the client-specific preference and project standardized format. If the client has a specific preference or the office or group preparing the report has a previously used style with that client, these factors should be considered in developing the report format.

(ii) The format (organization and content) of project technical studies and reports shall be based on the client's requirements. Absent client-specified format, the **Project Manager** and/or the originating **Discipline Leader** shall determine the format based on the scope and complexity of the report.

A.3.2.2 Development and Review

(i) **Discipline Leaders** shall assign qualified individuals the task of preparing study and report content and are responsible for monitoring compliance with this guideline.

(ii) **Discipline Leaders** shall arrange for reviews in accordance with the **Checking** and **Verification Procedure** and documented in the associated forms.

(iii) In addition to discipline reviews, the **Project Manager** shall review the study/report for overall adequacy, completeness, and contractual requirements including compliance with applicable client requirements.

A.3.2.3 Distribution and Filing

(i) **Project Manager** shall distribute copies of technical reports and studies and any changes thereto to personnel/organizations requiring them.

(ii) If multiple reports are expected, it is suggested that the **Project Manager** or designee maintain an index of project technical studies and reports.

A.3.2.4 Changes

(i) Technical reports and studies should be maintained current with significant changes identified during technical development.

(ii) Changes to issued technical reports and studies shall be processed in the form of revision/addenda, approved and distributed.

(iii) Changes incorporated in technical reports and study revisions that are to be reissued should be identified. The reasons for changes should also be provided when it would be helpful for users. The revision date shall be added to the cover.

A.3.2.5 Use of Photographs or Digital Images

(i) Photographic or digital images used in the **Study or Report** depicting conditions relevant to the findings or conclusions shall be dated. Electronic files of images of photography taken by project staff or subconsultants shall be retained in project files along with a record print. Photos used in a report from a source other than project photography shall be attributed to the proper source.

A.4 Preparation of Drawings

A.4.1. Procedure

A.4.1.1 General Guidelines

(i) **Discipline Leaders** shall assign qualified individuals the task of preparing drawings and are responsible for monitoring compliance with this guideline.

(ii) At project inception, a project drawing list is to be developed, or updated from one prepared during the proposal phase, by each discipline. Drawing lists will be updated at each milestone to help the **Project Manager** in estimating progress or completion status.

(iii) Drawing Numbers and File Naming – Drawings and drawing files shall be uniquely identified with drawing numbers in accordance with the system applicable to the project.

(iv) CAD Standards –The CAD Standards to be used on the project shall be as identified in the scope of services, or through detailed discussions with the client.

(v) Origin of Drawings – **Discipline Leaders** are responsible for assigning the preparation of drawings to a **Designer** who may work with the **Detailer** working under the direction of a CAD Manager. Each **Designer** shall be responsible for seeing that the required information is transmitted to the **Detailer** via sketches, marked-up prints, electronic data, and/or written or verbal instructions.

(vi) Duplication of information is to be avoided on drawings, and between drawings and specifications.

A.4.1.2 Review of Drawings During Preparation

(i) **Designer** will conduct periodic reviews of drawings in progress to see that proper scales, orientation, standards, formats and design information are being utilized and that the design input has been interpreted, applied properly, and is being coordinated with other disciplines. This type of "over-the-shoulder" review takes place as the work progresses, and precedes the formal reviews that occur as part of the **Checking** and **Verification Procedure**.

(ii) Where available, the **Designer** may use discipline-specific, client-specific, project-specific or other similar checklists to verify that design, construction and presentation aspects and details are being adequately addressed.

A.4.1.3 Client Requests for Unchecked In-progress Drawings

(i) Clients occasionally request non-contractual, unscheduled, interim or in-progress submittals of drawings for any number of purposes. Given the risks associated with providing unchecked documents to a client and the potential for client complaints, it is always intended that drawings be reviewed in accordance with the **Checking** and **Verification Procedure** prior to submission. However, when circumstances demand, unchecked drawings may be released if the following minimum requirements are met:

(a) The **Project Manager** shall review the drawing set to confirm that the drawings have progressed to the completion level anticipated by the client and to confirm that the non- contractual progress submittal would not be deemed as unacceptable by the client in any way.

(b) A disclaimer statement (or bold stamp) shall be placed on the drawing set indicating that "IN-PROGRESS" and are being provided for "INFORMATION ONLY" at the request of the client."

(c) The **Project Manager** shall submit the non-contractual progress submittal with a cover letter stating that the drawing set is being provided for "INFORMATION ONLY" as requested by the client. The cover letter shall also state that the IN-PROGRESS submittal has not yet been reviewed in accordance with project procedures and is subject to revision in concept and detail as work progresses.

A.4.1.4 Signing and Sealing of Drawings

(i) Drawings issued for construction shall be signed and sealed in accordance with the laws of the applicable State, typically that where the project is located, not

where the design takes place. **Discipline Leaders** shall be responsible for understanding the practice and implementing on the project. Any discrepancy or confusion shall be brought to the attention of **Project Manager**.

A.5 Software Validation Procedure

A.5.1. Purpose and Scope

A.5.1.1 This procedure describes minimum requirements to ensure that technical software used on the project has been validated before use.

A.5.1.2 This procedure applies to software used for any of the following:

(i) Performing calculations;

(ii) Developing input for use in calculations;

(iii) Creating designs or drawings using embedded calculations;

(iv) Generating output provided directly to clients;

(v) Generating output included in deliverables to clients; or

(vi) Software that is developed and delivered to a client as a contractual obligation.

For purposes of this procedure, such software is referred to as “technical software.” Exclusions from this procedure include software:

(i) That does not conform to the definitions provided in the list above;

(ii) Used to produce output that is checked and verified manually;

(iii) Inherent to equipment for measuring and testing, which is periodically verified and calibrated in accordance with the manufacturer’s specifications; or

(iv) Designed to enable the operation and maintenance of a computer system and its associated programs (systems software).

A.5.1.3 Mathematical, formulaic and logic-based programming developed within standard office-type platforms such as Excel and Mathcad may typically be validated as calculations in accordance with the **Checking** and **Verification Procedure**. Advanced or complex programs that are not amenable to standard checking/verification shall be validated in accordance with this procedure.

A.5.2. Terms and Definitions

A.5.2.1 **Approver** – The individual, independent of the **Validator**, that reviews the validation output and accepts the software for use on the project.

A.5.2.2 **Industry-Standard Software** – Commercially available technical software that is widely used and accepted in a discipline or practice area, and that does not require significant adaptation.

A.5.2.3 **Legacy Software** – Technical software regularly used in the current version for at least three years and for which no problems have been reported, or for which problems have been reported and corrected.

A.5.2.4 **Non-Standard Software** – Technical software that is not widely used and accepted in the industry.

A.5.2.5 **Software Register** – An up-to-date listing of validated technical software maintained by each **Discipline Leader** and posted in a location accessible to all staff.

A.5.2.6 **Validation** – The process of accepting technical software for use by an LCP Company.

A.5.2.7 **Validator** – The individual that performs the validation.

A.5.3. Procedure

A.5.3.1 Staff Responsibilities with Technical Software

All staff using technical software shall help ensure that technical software is used properly, that it is appropriate for the task at hand, and that any resulting errors, input/processing problems, or questionable output are reported to their **Discipline Leader**.

A.5.3.2 Technical Software Register

Discipline Leaders shall maintain a register, accessible to project staff that lists technical software that has been validated for use. The register shall include, at a minimum, the vendor name, software name/description, and version number.

A.5.3.3 Responsibility for Software and Validation

Discipline Leaders are responsible for monitoring the use of technical software within their departments, disciplines and/or practice areas and ensuring that such software meets the requirements of this procedure. When appropriate, **Discipline Leaders** may serve as Validators and/or Approvers.

A.5.3.4 Software Classification

Technical software shall be classified by the appropriate **Discipline Leader** into one of the following categories, as defined above:

(i) Legacy Software

(ii) Industry-standard Software

(iii) Non-standard Software

A.5.3.5 Validation Process

The appropriate **Discipline Leader** shall assign a **Validator** and **Approver** who shall process the technical software in accordance with its classification as follows:

(i) Legacy Software – Acceptance is based on previously documented and satisfactory internal production experience.

(ii) Industry-Standard Software – The software developer/vendor shall be requested to provide a signed statement or certification that the software has undergone a quality control validation process confirming that it performs as intended. Based on this certification, such software requires no further validation other than a run with sample data to verify that the program functions properly. When no such statement or certification is available, the software shall be treated as Non-standard Software.

(iii) Non-standard Software – Shall be validated using either of the following test procedures:

(a) Run the software using input from a known solution and verify that the program output matches the known solution. All significant design options/methodologies offered by the program shall be verified.

(b) Perform a manual calculation to verify the results obtained using the software.

A.5.3.6 Validation Approval

The **Validator** shall provide the results and documentation of the validation process to the assigned **Approver**, who shall review the information and, if found acceptable, approve the software for use. The **Approver** shall take the necessary steps to have the technical software added to the LCP validated software register. Technical software shall not be used in production until it has been accepted by the **Approver**.

A.5.3.7 Validation of Software Revisions

(i) New versions of technical software that have been previously validated shall be reviewed by a **Validator** by running the input file or database from the previous version and comparing results. Any differences between the outputs shall be justifiable.

(ii) When approving new versions, changes that may affect previous output shall be noted and communicated by the **Validator** to the **Discipline Leader**.

(iii) The widespread use and acceptance of the new version of the software in our industry, without apparent concern regarding its performance, may also be considered as a basis for accepting new versions.

(iv) New versions of technical software shall not be used prior to acceptance by the **Approver**.

(v) Consideration shall be given to whether only the latest version of the software is to be maintained, keeping in mind that the use of older versions may still be required by the client or for continuity with earlier output.

A.5.3.8 Software Validation Documentation

The validation process shall be documented.

A.5.3.9 Software Errors

Errors discovered by any user in previously validated software that have the potential to affect completed work shall be reported to the appropriate **Discipline Leader**. The **Discipline Leader** shall then be responsible for:

(i) Notifying the software developer/vendor and **Project Manager**

(ii) Identifying projects that have used or are using the software

(iii) Assessing the impact of the error on both completed and ongoing projects, including notification of other **Discipline Leaders** as appropriate.

(iv) Developing a corrective action plan for all affected projects

(v) Revising the validation documentation, including the software register, as necessary

Appendix B: Guidelines for Processes

B.1 Project Processes

We believe that a Project's desired result is achieved more efficiently when activities and related resources are managed as a Process. In achieving desired results, Process Guidelines must be identified and documented. Stantec develops typical Process Guidelines based upon past experiences. Unique Process Guidelines (PG's) are also developed for certain projects.

Our PG's are defined as those functions necessary for managing the Project as well as those that are necessary to realize the project's deliverable. Project processes include:

- administrative processes; and,
- technical processes

Our QMP provides Process Guidelines (PG's) for all known project processes. PG's outline a quality process to be performed; and becomes part of the QMP for the Project.

Basic Elements of a Process Guideline should include:

- purpose
- process description
- key elements
- responsibility/authority

Appendix C: QC Checklist & Comment Forms

QC DESIGN CHECKLIST & COMMENT FORM

PROJECT ELEMENT

ORIGINAL CALC ☐ Yes ☐ No **IF REVISED, REV'N NO.**

DESIGNER **QC DESIGN CHECKER**

ENGINEER OF RECORD

CALCULATION TYPE ☐ Hand calculation ☐ Spreadsheet ☐ Vendor Software ☐ Other

1.	If SPREADSHEET, has it been approved by Stantec's Project Manager?	☐ Yes	☐ No
2.	If VENDOR SOFTWARE, is it on the LADOTD, Bridge Design Section website, pre-approved list?	☐ Yes	☐ No
3.	If not on pre-approved list, has it been approved for use by LADOTD, Bridge Design Section?	☐ Yes	☐ No
4.	If OTHER, please describe		

DESIGN INPUT VERIFICATION

1.	Has design input been generated from another source?	☐ Yes	☐ No
2.	Has source information been checked and approved?	☐ Yes	☐ No

CALCULATION CHECK (If response is No, provide applicable comments)

1.	Has the DESIGNER signed and dated the calculation?	☐ Yes	☐ No	☐ N/A
2.	Is the calculation in accordance with a standard approach to preparing the design?	☐ Yes	☐ No	☐ N/A
3.	Is the calculation consistent with contractual requirements of the Scope of Work?	☐ Yes	☐ No	☐ N/A
4.	Are any new DTM's by LADOTD required to be implemented in this design?	☐ Yes	☐ No	☐ N/A
5.	Has the Project Design Criteria been included & followed?	☐ Yes	☐ No	☐ N/A
6.	Is a Project "GO-BY" required for this design?	☐ Yes	☐ No	☐ N/A
7.	Has the Project "GO-BY" been followed?	☐ Yes	☐ No	☐ N/A
8.	Have assumptions for the design been reviewed and confirmed?	☐ Yes	☐ No	☐ N/A
9.	Are results & conclusions consistent & reasonable considering the inputs & approach?	☐ Yes	☐ No	☐ N/A
10.	Are special provisions or Non-Standard Specification required for this design?	☐ Yes	☐ No	☐ N/A
11.	Have any NON-CONFORMANCE REPORTS been prepared?	☐ Yes	☐ No	☐ N/A

Comments:

QC DESIGN CHECKER SIGNATURE _____ **DATE:**

QC DETAIL CHECKLIST & COMMENT FORM

PROJECT DRAWINGS CHECKED

ORIGINAL DRAWINGS ☐ Yes ☐ No IF REVISED, REV'N NO.

ORIGINATOR(S) QC DETAIL CHECKER

CHECK LEVEL ☐ 30% Final ☐ 95% Final ☐ 98% Final ☐ PS&E

DESIGN, QUANTITIES, MATERIALS, SPECIFICATIONS & NOTES	
1. Has the DESIGN INFORMATION been checked and approved?	☐ Yes ☐ No ☐ N/A
2. Have the QUANTITIES been checked and approved?	☐ Yes ☐ No ☐ N/A
3. Are the MATERIALS properly coordinated with the Project specifications?	☐ Yes ☐ No ☐ N/A
4. Are special provisions or Non-Standard Specifications required for any of the design elements or materials shown on the DRAWINGS?	☐ Yes ☐ No ☐ N/A
5. Do the NOTES include proper references for DESIGN & MATERIALS and proper cross-references to other DRAWINGS?	☐ Yes ☐ No ☐ N/A
DRAWING CHECK (If response is No, provide applicable comments)	
1. Are titles and sheet numbers properly shown & matching the Sheet Index?	☐ Yes ☐ No ☐ N/A
2. Have comments from previous internal reviews been addressed?	☐ Yes ☐ No ☐ N/A
3. Have comments from previous LADOTD reviews been addressed?	☐ Yes ☐ No ☐ N/A
4. Is the DESIGN INFORMATION properly and correctly presented?	☐ Yes ☐ No ☐ N/A
5. Is completeness sufficient for the REVIEW LEVEL?	☐ Yes ☐ No ☐ N/A
6. Have the appropriate CAD standards been followed?	☐ Yes ☐ No ☐ N/A
7. Are the DRAWINGS properly formatted in accordance with the "GO-BY"?	☐ Yes ☐ No ☐ N/A
8. Are there any constructability issues presented on the DRAWINGS?	☐ Yes ☐ No ☐ N/A
9. Have the appropriate CAD standards been followed?	☐ Yes ☐ No ☐ N/A
10. Have dimensions been independently verified?	☐ Yes ☐ No ☐ N/A
11. Are critical dimensions and clearances correct?	☐ Yes ☐ No ☐ N/A
12. Have redundancy and duplication issues been eliminated?	☐ Yes ☐ No ☐ N/A
13. Have the DRAWINGS' information been properly interfaced with other disciplines?	☐ Yes ☐ No ☐ N/A
14. Have Project geometrics been verified with other discipline drawings?	☐ Yes ☐ No ☐ N/A
15. Have any NON-CONFORMANCE REPORTS been prepared?	☐ Yes ☐ No ☐ N/A

Comments:

QC DETAIL CHECKER SIGNATURE _____ DATE:

Appendix D: QA Checklist & Comment Forms

QA REVIEW & COMMENT FORM

DESCRIPTION OF QA PACKAGE:

Designs Included in Package:

Drawings Included in Package:

QA REVIEWER

REVIEW LEVEL ☐ 95% Final ☐ 98% Final ☐ PS&E

QA PAKCAGE PREPARATION

Has the QA PACKAGE been properly prepared for review?	☐ Yes ☐ No
Have INDEPENDENT CHECKS been properly prepared & included in the QA PACKAGE?	☐ Yes ☐ No

Comments:

PACKAGE REVIEW (If response is No, provide applicable comments)

1. Have all DESIGNS been properly checked in accordance with the 5-step method?	☐ Yes ☐ No ☐ N/A
2. Have all DESIGN COMMENTS been properly resolved?	☐ Yes ☐ No ☐ N/A
3. Have all DRAWINGS been properly checked in accordance with the 5-step method?	☐ Yes ☐ No ☐ N/A
4. Have any NON-CONFORMANCE REPORTS been prepared?	☐ Yes ☐ No ☐ N/A

Comments:

QA REVIEWER SIGNATURE _____ **DATE:**

Appendix E: Independent Review & Comment Form

INDEPENDENT REVIEW & COMMENT FORM

DESCRIPTION OF QA PACKAGE:

Designs Included in Package:

Drawings Included in Package:

INDEPENDENT REVIEWER

REVIEW LEVEL ☐ 95% Final

IR PAKCAGE PREPARATION

Has the IR PACKAGE been properly prepared for review?	☐ Yes ☐ No

Comments:

COMPLETENESS & CONSTRUCTIBILITY REVIEW (If response is No, provide applicable comments)

1.	Do the PLANS & SPECIFICATIONS satisfactorily complete the Project SOW?	☐ Yes ☐ No ☐ N/A
2.	Are the design concepts & technical solutions suitable to the Project's SOW?	☐ Yes ☐ No ☐ N/A
3.	Are the PLANS & SPECIFICATIONS presented with completeness for bidding?	☐ Yes ☐ No ☐ N/A
4.	Do the PLANS & SPECIFICATIONS provide the contractor with clear, concise information that can be utilized to prepare a competitive, cost-effective bid?	☐ Yes ☐ No ☐ N/A
5.	Can the Project, as detailed in the PLANS & SPECIFICATIONS, be constructed using standard construction methods, materials and techniques?	☐ Yes ☐ No ☐ N/A
6.	When constructed in accordance with the PLANS & SPECIFICATIONS, can be the Project be maintained in a cost-effective manner?	☐ Yes ☐ No ☐ N/A

Comments:

INDEPEDENT REVIEWER SIGNATURE _____ **DATE:**

Appendix F: LADOTD Road Design QC/QA Plan

In addition to the **QC/QA** procedures described in this **QMP**, **LADOTD Road Design** has established requirements for road design projects. This **Appendix F** has been developed with respect to the current **LADOTD Road policies**. Stantec's **QMP** program is well aligned with the **LADOTD Road Policy**.

Consistent with our **QMP** program, Stantec clearly understands, and believes, that the responsibility for Quality in our services and deliverables is **100% ours**. We also recognize that expectation of LADOTD Road and its staff is only to provide oversight on the design process. The following Checklists are incorporated and become the requirement of the project/assignment. Where discrepancies arise between the Stantec QMP and the LADOTD Road Design QC/QA Plan, the LADOTD Road Design QC/QA Plan shall govern.

F1: 60% Preliminary Roadway Plans QA Checklist

F2: 90% Preliminary Roadway Plans (Pre-Plan in Hand) QA Checklist

F3: 100% Preliminary Plans QA/QC (Road Design)

F4: ACP Final Roadway Plans

F5: Road Design Final Plans QA/QC

F6: TMP Checklist

F1: 60% Preliminary Roadway Plans QA Checklist

Note: If sufficient changes have occurred since 30% submittal, need to complete 30% checklist again. N/A

Give comment on separate sheet for any item marked 'no'.

Yes No

Title Sheet

- ☐ ☐ Have comments from 30% submittal been addressed?
- ☐ ☐ Have items from 30% checklist marked as 'no' been completed?
- ☐ ☐ Is index in progress?
- ☐ ☐ Is length of project table complete?

Typical Sections

- ☐ ☐ Have comments from 30% submittal been addressed?
- ☐ ☐ Have items from 30% checklist marked as 'no' been completed?
- ☐ ☐ Has pavement design been obtained and incorporated?
- ☐ ☐ Is pipe spacing detail shown?

Plan-Profile Sheets (Includes Drainage Plan-Profiles Where Appropriate)

- ☐ ☐ Have comments from 30% submittal been addressed?
- ☐ ☐ Have items from 30% checklist marked as 'no' been completed?
- ☐ ☐ Has preliminary required right-of-way (including construction and drainage servitude) been shown?
- ☐ ☐ Have limits of construction been shown?
- ☐ ☐ Are cross drain locations identified (disposition of existing structure, required structure, station, size, type, drainage area, design Q, design headwater or headwater elevation, differential head, velocity, direction of flow, flow lines, erosion control measures, bedding material)?
- ☐ ☐ Are required side-drains shown (station, size, type, drainage area)?
- ☐ ☐ Are required bridge structures shown (hydrologic information, begin/end bridge)?
- ☐ ☐ Are ditch grades shown?
- ☐ ☐ Are limits of superelevation shown (begin/end transition, begin/end superelevation, super rates, normal crown)?
- ☐ ☐ Are finished roadway elevations shown at begin/end of each sheet?
- ☐ ☐ Are construction notes in progress (removal items, required PCCP, AC, fencing, gates, etc)?
- ☐ ☐ Are required driveways shown (station, width and type)
- ☐ ☐ Are lane widths & dimension to centerline shown at begin/end of each sheet?
- ☐ ☐ Are geometric details at intersections & crossovers shown?
- ☐ ☐ Are detour alignments shown?
- ☐ ☐ Are proposed cross drains and storm drains shown and labeled in profile?

Existing Drainage Map

- ☐ ☐ Is scale appropriate?
- ☐ ☐ Are sizes and drainage areas of all existing structures shown?

Yes No

Design Drainage Map

- ☐ ☐ Is scale appropriate?
- ☐ ☐ Is proposed horizontal alignment shown and labeled (begin/end station)?
- ☐ ☐ Is proposed hydrologic information shown (drainage area, watershed boundaries, flow direction, design storm, design Q, design HW, method used)?
- ☐ ☐ Are required structures numbered?

Geometric Details

- ☐ ☐ Have plan/profiles showing detours been provided?
- ☐ ☐ Have all details of crossovers, turnouts, intersections, and islands been provided at appropriate scale?
- ☐ ☐ Do details include lane widths, deltas, baseline ties to centerline, north arrow, etc.?
- ☐ ☐ Are traffic data and turning movements shown where appropriate?
- ☐ ☐ Survey

Sequence of Construction/Construction Signing Sheets (In Progress)

- ☐ ☐ Are the sheets set up at an appropriate scale?
- ☐ ☐ Is existing roadway, proposed alignment and stationing shown?
- ☐ ☐ Are intersecting roads shown and labeled?
- ☐ ☐ Is north arrow and scale shown?

Completed By:
Date:

F2: 90% Preliminary Roadway Plans QA Checklist

Note: If sufficient changes have occurred since 60% submittal, need to complete 60% checklist again.

Give comment on separate sheet for any item marked 'no'.

Yes No

Title Sheet

☐ ☐ Have comments from 60% submittal been addressed?
☐ ☐ Have items from 60% checklist marked as 'no' been completed?
☐ ☐ Is index in complete & accurate?
☐ ☐ Are earthwork totals shown?

Typical Sections

☐ ☐ Have comments from 60% submittal been addressed?
☐ ☐ Have items from 60% checklist marked as 'no' been completed?

Summary Sheets

☐ ☐ Has complete listing of current pay items been provided?
☐ ☐ Has construction cost estimate been completed?

Plan-Profile Sheets (Includes Drainage Plan-Profiles Where Appropriate)

☐ ☐ Have comments from 60% submittal been addressed?
☐ ☐ Have items from 60% checklist marked as 'no' been completed?
☐ ☐ Are construction notes complete (removal items, required PCCP, AC, fencing, gates, etc)?
☐ ☐ Is earthwork shown at maximum 200' spacing?

Existing Drainage Map

☐ ☐ Have comments from 60% submittal been addressed?
☐ ☐ Have items from 60% checklist marked as 'no' been completed?

Design Drainage Map

☐ ☐ Have comments from 60% submittal been addressed?
☐ ☐ Have items from 60% checklist marked as 'no' been completed?

Geometric Details

☐ ☐ Have comments from 60% submittal been addressed?
☐ ☐ Have items from 60% checklist marked as 'no' been completed?

Sequence of Construction/Construction Signing Sheets

☐ ☐ Have comments from 60% submittal been addressed?
☐ ☐ Have items from 60% checklist marked as 'no' been completed?
☐ ☐ Does phasing sufficiently allow for construction of all proposed improvements?
☐ ☐ Are traffic flow arrows shown?
☐ ☐ Are required construction signs shown?

Completed By:
Date:

F3: Road Design 100% Preliminary Plans QA/QC

ROAD DESIGN 100% PRELIMINARY PLANS QA/QC

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

State Project No. _____ **Route No.** _____

Name: _____ **Parish** _____

General Directions:

Designer should go through this QA/QC process prior to submitting to a reviewer, attach all previous checklists for reviewer, and sign. The designer should also provide the location for the plan set being reviewed.

Reviewer should

1. Review Plan-in-Hand checklist, have all comments been addressed? ☐
2. Review Constructability / Biddability checklist, have all comments been addressed? ☐
3. Review Location and Survey Checklist. ☐
4. Sign this checklist upon completion. While completing this process, it is recommended that the reviewer use a highlighter and a red pen to mark major items on plans (this includes all table information including the math). These documents should also be attached to this document and kept as part of the design calculations for the project.

Description	Designer	Reviewer	N/A
TITLE SHEET			
The project name on the title and plan sheets matches the name in the Project System.	☐	☐	☐
The Project Length Table is accurate.	☐	☐	☐
The CS Log Miles are accurate.	☐	☐	☐
The arrows on the Layout Map are pointing to the correct location.	☐	☐	☐
The beginning, ending, equation and other event callouts match the same callouts on the plan sheets.	☐	☐	☐
The north arrow is shown on the Layout Map.	☐	☐	☐
The scale for the Layout Map is labeled correctly.	☐	☐	☐
TYPICAL SECTION SHEETS			
The typical section matches the design provided by Section 67.	☐	☐	☐
The projects limits are covered by the typical sections.	☐	☐	☐
Superelevation diagrams and/or tables have been provided.	☐	☐	☐
All measurements, thicknesses, and slope rates have been labeled and checked.	☐	☐	☐
PLAN-AND-PROFILE SHEETS			
All of the alignment information is shown and has been checked for accuracy. (including horizontal and vertical curve data)	☐	☐	☐

Sight distance has been checked including for vertical and horizontal curves as well as intersections. Also consideration has been given to any driveway or intersection at bridge ends.	☐	☐	☐
Superelevation transition and rates are shown in the profile.	☐	☐	☐
Median openings are in compliance with appropriate policies and EDSM's.	☐	☐	☐
Design exceptions that are required have been completed and documented in the plans.	☐	☐	☐
Design exceptions can be located in the project files.	☐	☐	☐
Utilities were considered when setting Required Right-of-Way.	☐	☐	☐
The North Arrow is shown with the proper scale.	☐	☐	☐
All right-of-way ties are shown, at all right-of-way breaks, and along curves as appropriate.	☐	☐	☐
Right-of-way markers are shown at all breaks.	☐	☐	☐
Limits of construction is shown and located within required right-of-way or construction servitude.	☐	☐	☐
Taking lines do not extend beyond the project limits.	☐	☐	☐
Driveways, sidewalks, turnouts, etc. within right-of-way (either existing or required) are shown.	☐	☐	☐
All concrete/asphalt removal is shown with appropriate patterns, including driveways, sidewalks, parking lots, etc.	☐	☐	☐
CROSS SECTIONS			
Right-of-way and construction servitude lines are shown.	☐	☐	☐
Diversions are shown as appropriate.	☐	☐	☐
Diversions do not interfere with proposed construction sequence.	☐	☐	☐
Earthwork quantities are shown.	☐	☐	☐
Proposed sections do not extend beyond Required Right-of-Way.	☐	☐	☐

Designer:_____ Date:_____

Reviewer:_____ Date:_____

F4: 95% ACP Final Roadway Plans QA Checklist

Note: If significant changes have occurred since Plan in Hand, need to complete 90% Preliminary Plan checklist again.

Give comment on separate sheet for any item marked 'no'.

Yes No

General Items

- ☐ ☐ Have all comments since plan in hand been addressed?
- ☐ ☐ Have items from 90% preliminary plan checklist marked as 'no' been completed?
- ☐ ☐ Is index of sheets complete and accurate?
- ☐ ☐ Are all standard plans required included – ensure that latest revision is used?
- ☐ ☐ Has a detailed check of all sheets added since plan in hand been completed?
- ☐ ☐ Have all design exceptions required been approved and listed on the Title Sheet?
- ☐ ☐ Have environmental commitments been incorporated?

Summary Sheets (Includes Drainage Summary Sheets)

- ☐ ☐ Are tables provided for all major items of work?
- ☐ ☐ Are tables arranged in accordance with latest plan preparation manual?
- ☐ ☐ Are tables in agreement with design quantity calculations?
- ☐ ☐ Is design calculation report and hydraulic report provided (neatly arranged, checked, bound, etc.)?
- ☐ ☐ Are all pay items in agreement with latest standard pay item list (item number, description, number of decimals, etc.)?
- ☐ ☐ Is side drain table and list of abbreviations shown on last drainage summary sheet?
- ☐ ☐ Is final construction cost estimate complete?

Completed By:
Date:

F5: Road Design Final Plans QA/QC

ROAD DESIGN FINAL PLANS QA/QC

State Project No. _____ **Route No.** _____

Name: _____ **Parish** _____

General Directions:

Designer should go through this QA/QC process prior to submitting to a reviewer, attach all previous checklists for reviewer, and sign. The designer should also provide the location for the plan set being reviewed.

Reviewer should

1. Review Plan-in-Hand checklist, have all comments been addressed? ☐
2. Review ACP checklist, have all comments been addressed? ☐
3. Review Constructability / Biddability checklist, have all comments been addressed? ☐
4. Sign this checklist upon completion. While completing this process, it is recommended that the reviewer use a highlighter and a red pen to mark major items on plans (this includes all table information including the math). These documents should also be attached to this document and kept as part of the design calculations for the project.

Description	Designer	Reviewer	N/A
TITLE SHEET			
The sheet count is correct.	☐	☐	☐
The latest versions of Standard Plans are used.	☐	☐	☐
The type of construction is correct.	☐	☐	☐
The projects limits, bridge sites, equations and exceptions are shown on the layout map. It matches the length in the project table.	☐	☐	☐
Design exceptions (if any) are shown on title sheet and can be located in ProjectWise.	☐	☐	☐
TYPICAL SECTION SHEETS			
All station ranges are accounted for. They match limits shown on Title Sheet and Plan/Profile sheets.	☐	☐	☐
Alternate pavements (if required) are provided.	☐	☐	☐
The limits of seeding and fertilizer are shown.	☐	☐	☐
Typical sections are provided for transitions and detour roads. Appropriate pay items are included.	☐	☐	☐
Maintenance/liability agreement (if needed) has been completed for sidewalks, lighting or bike paths, and it can be located.	☐	☐	☐

Description	Designer	Reviewer	N/A
SUMMARY SHEETS			
Detailed check of all quantity tabulations (addition and multiplication) has been completed.	☐	☐	☐
Detailed check of tables matching the plans (typical sections, plan/profiles, cross sections, etc.) has been completed.	☐	☐	☐
Detailed check of quantity transfers from tables to Master Summary has been completed.	☐	☐	☐
Quantities from all disciplines are accounted for (i.e. road, bridge, traffic signals, etc.)	☐	☐	☐
PLAN-AND-PROFILE SHEETS			
Check all notes; verify how all work items will be paid.	☐	☐	☐
Question notes that modify specifications.	☐	☐	☐
The rights-of- way widths are shown.	☐	☐	☐
Right-of way markers are shown at all breaks in right-of way and all P.C.'s and P.T.'s. Right of entry agreements has been obtained, if needed.	☐	☐	☐
Areas where abandoned roadways are to be obliterated and graded have been shown on the plan.	☐	☐	☐
Locations, sizes and descriptions of drainage structures to be removed are shown.	☐	☐	☐
Required construction and drainage servitudes have been shown.	☐	☐	☐
Bedding material has been shown under cross drains.	☐	☐	☐
Driveway types, widths and stations are shown. Handicap ramp types and items are shown. They match tables.	☐	☐	☐
Limits of construction are shown.	☐	☐	☐
There is a note stating existing drainage structures will be removed unless otherwise noted (Urban). There is a table showing amounts of each size pipe to be removed.	☐	☐	☐
The diversion alignment is shown, if required.	☐	☐	☐
DESIGN DRAINAGE MAP			
All drainage areas, direction of flow, run-off factors etc. are shown.	☐	☐	☐
Channel realignments (as needed) have been shown.	☐	☐	☐
Existing structures required to remain are noted and numbered.	☐	☐	☐
GEOMETRIC DETAILS			
Plan/profile sheets have been provided for turnouts where necessary.	☐	☐	☐
Plan/profile sheets have been provided for diversion roads.	☐	☐	☐
Geometric detail sheets include areas and quantities for each turnout.	☐	☐	☐

Description	Designer	Reviewer	N/A
SEQUENCE OF CONSTRUCTION			
The sequence of construction matches the proposed joint layout.	☐	☐	☐
Temporary drainage structures are provided during construction.	☐	☐	☐
Sequence typical sections have been provided, if necessary.	☐	☐	☐
Verify that provided lane widths are appropriate and available.	☐	☐	☐
Vertical transitions from existing to new pavement are adequate.	☐	☐	☐
Temporary pedestrian accommodations are provided per TTCs.	☐	☐	☐
GENERAL			
Saw cutting is shown where needed and paid for appropriately. (driveways, pavement cuts, patching, etc.)	☐	☐	☐
Salvageable material is shown as well as where to haul it to.	☐	☐	☐
Environmental mitigation items are included in the plans as necessary.	☐	☐	☐
CROSS SECTIONS			
Cross sections reflect the grading section.	☐	☐	☐
Cross sections reflect the “Req’d Right of Way/Servitude”.	☐	☐	☐
Cross sections reflect the embankment widening for guard rail.	☐	☐	☐
The grading section is distinguishable from the existing ground line.	☐	☐	☐
Cross sections reflect cut/fill sections that match the grade shown on the plan/profile sheets.	☐	☐	☐
The diversion is shown on the cross sections.	☐	☐	☐

Designer:_____ Date:_____

Reviewer:_____ Date:_____

F6: TMP CHECKLISTS

Workflow Notes for TMP Checklists

①	Started and completed in the Stage 0 process either by Traffic Engineering Consultant (reviewed by DTOE) or District Traffic Staff. If no Stage 0 is required then would need to be completed prior to beginning the design.
②	Started and completed in the Stage 0 process either by Consultant or District Staff. If no Stage 0 is required then would need to be completed prior to beginning the design.
③	Started in the Stage 0 process either by Consultant or District Staff, re evaluated in the Stage 1 process either by Consultant or Environmental Staff. If no Stage 0 or Stage 1 then started prior to beginning design. Shall be completed by Project Manager or Designer prior to PDD.
④	Started in the Stage 0 process either by Consultant or District Staff and completed in the Stage 1 process either by Consultant or Environmental Staff. If no Stage 0 or Stage 1 then completed prior to beginning the design.
⑤	Prepared by the project manager and signed by all responsible parties prior to PDD
⑥	Started and completed in the Stage 0 process by personnel with training and reviewed by DOTD HQ Safety staff. If no Stage 0 is required then would need to be completed prior to beginning the design. Re-evaluated after Stage 1 and Stage 3.
⑦	Started and completed in the Stage 3 process by the designer.
⑧	Started in the Stage 0 process and completed by a Public Information Officer prior to PDD.

Level 2 Transportation Management Plan Checklist

The following list represents Transportation Management Plan (TMP) components and the percentages completed for Level 2 projects as defined in EDSM VI.1.1.8.

Directions

(a) In the left column write "Yes" if applicable or N/A if not applicable. Checkmarks denote items that are required for all projects at this level.
(b) In the right columns place the percentage completed at each submittal stage.
(c) See Workflow Notes sheet for delivery instructions.

Applicable for this project {Required (✓)}	Level 2 TMP Components	Stage 0	Stage 1	Stage 3		Workflow Notes
				Preliminary	Final	
				60% Submittal	90% Submittal	
	Analysis	**Percent Complete**				
	• Detour Analysis	100%				①
	• Queue Analysis according to Section 6A.1, Queue Analysis for Lane Closures on Interstate of the Traffic Engineering Manual	100%				①
	Documentation	**Percent Complete**				
✓	• TTC Details			50%	100%	⑦
	• TTC Plan (based on type and location of construction)			50%	100%	⑦
	• Mitigation (if the current roadway is LOS F)	60%	100%			④
	• Mitigation (if the roadway is on the Abnormal Crash Location list)	60%	100%			④
	• Evacuation Strategy (if used as an evacuation route)	100%				④
	• Work Restrictions	20%	50%	70%	100%	④
✓	• Basic Public Information release at the District level			60%	100%	⑧

Level 3 Transportation Management Plan Checklist

The following list represents Transportation Management Plan (TMP) components and the percentages completed for Level 3 projects as defined in EDSM VI.1.1.8.

Directions

(a) In the left column write "Yes" if applicable or N/A if not applicable. Checkmarks denote items that are required for all projects at this level.
(b) In the right columns place the percentage completed at each submittal stage.
(c) Acquire signatures from Project Manager, District Traffic Operations Engineer (DTOE), and Area Engineer.
(d) See Workflow Notes sheet for delivery instructions.

Applicable for this project {Required (✓)}	Level 3 TMP Components	Stage 0	Stage 1	Stage 3		Workflow Notes
				Preliminary	Final	
				60% Submittal	90% Submittal	
	Section 1 - Project Description	**Percent Complete**				
✓	• Purpose and scope	80%	90%	95%	100%	⑥
✓	• Project type	80%	90%	95%	100%	⑥
✓	• Project area and roadway characteristics	80%	90%	95%	100%	⑥
✓	• Project vicinity map	80%	90%	95%	100%	⑥
✓	• Nearby projects	50%	70%	75%	100%	⑥
✓	• Project goals and constraints	50%	70%	75%	100%	⑥
✓	• General construction sequencing and timeline		80%	90%	100%	⑥
	Section 2 - Alternate Route Analysis					
✓	• Alternative route vicinity map	100%				②
	• Brief explanation of why it is necessary to close the roadway (if closing roadway)	75%	85%	95%	100%	③
✓	• Assessment of the detour route/alternate route	100%				②
✓	• A plan to gather and address safety and mobility concerns on the alternate route	100%				②
✓	• Conclusions to alternate route analysis	100%				②
	Section 3 - Public Information Plan					
✓	• Public Information and Outreach Strategies	25%	50%	70%	100%	⑧
	• Motorist Information Strategies	25%	50%	70%	100%	⑥

Applicable for this project {Required (✓)}	Level 3 TMP Components	Stage 0	Stage 1	Stage 3		Workflow Notes
				Preliminary 60% Submittal	Final 90% Submittal	
	Section 4 - Stakeholder Involvement (if required)					
✓	• List of stakeholders with their contact information (i.e. TMC operators, law enforcement, emergency response personnel, local jurisdictions, business owners, etc.)	50%	100%			④
✓	• Documentation of meetings and/or interviews		100%			④
	Section 5 - TMP Roles and Responsibilities (with signatures and resources)					
✓	• Project Engineer (PE)			30%	95%	⑤
✓	• Area Engineer			30%	95%	⑤
✓	• District Traffic Operations Engineer (DTOE)			30%	95%	⑤
✓	• Public Information Officer (PIO)			30%	95%	⑤
✓	• Transportation Managament Center (TMC)			30%	95%	⑤
	• Other -					⑤
	• Other -					⑤
	Section 6 - Traffic Data					
✓	• 7 day 24 hour counts	100%				①
✓	• Peak hour counts	100%				①
✓	• Analysis for existing conditions and proposed closure times	100%				①
	• Analysis for proposed mitigation					①
	Section 7 - Safety Analysis					
✓	• Impact Area	100%				⑥
✓	• Summarized crash data (3 years)	100%				⑥
✓	• Baseline safety performance	100%				⑥
	• Crash data analysis					⑥
	• Mitigation analysis					⑥
	• Crash data summary list					⑥

Applicable for this project {Required (✓)}	Level 3 TMP Components	Stage 0	Stage 1	Stage 3		Workflow Notes
				Preliminary 60% Submittal	Final 90% Submittal	
	Section 8 - Temporary Traffic Control					
✓	• TTC Details (in plans)			60%	100%	⑦
✓	• TTC Plans (in plans) A. A layout of the temporary traffic control plan B. Proposed construction phasing			60%	100%	⑦
	• Other Traffic Control Devices (PCMS, etc.)					⑦
	Section 9 - Work Zone Impact Management Strategies					
✓	• Project Coordination, Contracting, and Innovative Construction Strategies	25%	50%	70%	100%	⑥
✓	• Transportation Operations Strategies	25%	50%	70%	100%	⑥
✓	A. Demand Management Strategies	25%	50%	70%	100%	⑥
✓	B. Corridor/Network Management Strategies	25%	50%	70%	100%	⑥
✓	C. Work Zone Safety Management Strategies	25%	50%	70%	100%	⑥
✓	• Traffic/incident management and enforcement strategies	25%	50%	70%	100%	⑥
✓	• Contingency plan/evacuation scenario	25%	50%	70%	100%	⑥
✓	• Construction Alternatives	25%	50%	70%	100%	⑥
✓ ✓	A. Documentation of all costs, benefits, alternatives, and who is responsible for each cost	25%	50%	70%	100%	⑥
✓ ✓	B. A list of costs shared in coordination with other projects	25%	50%	70%	100%	⑥
✓	• TMP Implementation Cost	25%	50%	70%	100%	⑥

Appendix G: LADOTD Bridge Design QC/QA Plan

In addition to the **QC/QA** procedures described in this **QMP**, **LADOTD Bridge Design and Evaluation Manual (2014)** have established requirements for all bridge design and rating projects. This **Appendix G** has been developed with respect to the current **LADOTD Bridge policies**. Stantec's **QMP** program is well aligned with the **LADOTD Bridge Policy**.

Consistent with our **QMP** program, Stantec clearly understands, and believes, that the responsibility for Quality in our services and deliverables is **100% ours**. We also recognize that expectation of LADOTD Bridge and its staff is only to provide oversight on the design and rating process. For typical LADOTD Bridge assignments, the following Checklists are incorporated and become the requirement of the project/assignment. Where discrepancies arise between the Stantec QMP and the LADOTD Bridge Design QC/QA Plan, the LADOTD Bridge Design QC/QA Plan shall govern.

G1: LADOTD Bridge Design (Design Criteria Checklist)

G2: LADOTD Bridge Design (Final Calculation Book Checklist)

G3: LADOTD Bridge Design (QA Information Packet Checklist)

G4: LADOTD Bridge Design (QC/QA Certification)

G5: LADOTD Bridge Design (Peer Review Resolution Agreement)

G6: LADOTD Bridge Design (Consultant Project Bridge Design Kick-Off Meeting Agenda Checklist)

G1: LADOTD Bridge 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 η_D, redundancy factor η_R, and operational importance factor η_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** - The design criteria, types, and test levels for bridge barriers shall be listed in this section. Standard plans and special details 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 and special details should be listed if they are utilized.

__ **Approach Slab -** Design criteria for approach slab shall be included in this section. Standard plans and special details 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 and special details 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 and special details 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 and special details 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 and special details 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 and special details 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 and special details 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 and special details should be listed if they are utilized.

__ **Mechanical Design** - All mechanical design criteria shall be included in this section if applicable. Standard plans and special details should be listed if they are utilized.

__ **Electrical/Lighting Design** - All electrical design criteria shall be included in this section if applicable. Standard plans and special details 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.

G2: LADOTD Bridge Design (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 including the following information:

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

__ **All Electronic Design Files**

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

The final calculation book for in-house projects shall include the same files listed above for consultant projects. The final calculation book and other final design documents for all projects including in-house and consultant projects shall be uploaded to the archiving location designated in the record retention policy within 30 calendar days after the stamped final plans are delivered.

G3: LADOTD Bridge Design (QA Information Packet Checklist)

QA INFORMATION PACKAGE CHECKLIST (Bridge Design Section QC/QA Policy – Appendix C)			
PROJECT NO.: **Project Description:**			
PREPARER			
REVIEW LEVEL	☐ **95% Final**	☐ **98% Final**	☐ **PS&E**
QA PAKCAGE CHECKLIST			
Are the CALCULATION BOOKS included?			☐ **Yes** ☐ **No**
Are the PLANS included?			☐ **Yes** ☐ **No**
Are the SPECIAL PROVISIONS included?			☐ **Yes** ☐ **No**
Is the COST ESTIMATE included?			☐ **Yes** ☐ **No**
Are there OTHER DOCUMENTS included?			☐ **Yes** ☐ **No**
OTHER DOCUMENTS:			
PREPARER SIGNATURE _____			**DATE:**

G4: LADOTD Bridge Design (QC/QA Certification)

QC/QA CERTIFICATION (Bridge Design Section QC/QA Policy – Appendix D)						
Team Members	Name	LA PE No.	Responsibility			Signature
			Plan Sheet(s)	Special Provision(s)	Cost Estimate	
Designers						
Design Checkers						
Detailers						

QC/QA CERTIFICATION (Bridge Design Section QC/QA Policy – Appendix D)						
Detail Checkers						
Reviewers						
Peer Reviewer						
Geotech Engineer						
Hydraulic Engineer						
EOR						

G5: LADOTD Bridge Design (Peer Review Resolution Agreement)

Project No.:
Project Name:

We, the undersigned Peer Reviewer, Supervisor or Team Leader of the design team, and LADOTD Representative for this project, have reviewed and accepted the attached peer review resolutions. We certify that the peer review has been performed in accordance with the LADOTD Bridge Design Section policy on QC/QA.

Team Members	Name	Signature
Peer Reviewer		
Supervisor or Team Leader		
LADOTD Representative		

G6: LADOTD Bridge Design (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 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 H: Non-Conformance Report Form

NON-CONFORMANCE REPORT

NCR # _____

Activity #: _____

Activity: _____

Location: _____

NCR Prepared By: Name: _____ Date: _____

Company: _____

NCR Given to: Name: _____ Date: _____

Company: _____

Non-Conformance Description: _____

_____

_____

□ No Impact or Assessed Impact: _____

_____

_____

□ No Action or Action Required: _____

_____

References/Attachments _____

_____

Action(s) To Be Implemented By (Name & Date): _____

_____

Action(s) Completed By
(name & signature): _____ Date: _____

Remarks: _____

_____

Date copied: _____ Fax No. _____

Comments: _____

_____

Guidelines for NCR use

1. NCRs record non-conforming work incorporated into the project and could include, but not be limited to, deviations from design requirements, unexpected soil conditions, material defects, dimensional defects or other deviations in the work.

2. NCRs do not replace routine inspections, diary entries, or materials delivery or testing reports, but can refer to them.

3. Ideally, the person whose actions or decisions create the need for a NCR will issue it, but in other cases the person who finds the non-conformance issues the NCR.

4. The person who issues the NCR ensures it is completed to the point where a copy can be sent within 24 hours to the Quality Assurance Manager.

5. It is implicit that if non-conforming work is not to be repaired or replaced (i.e., no assessed impact) the finished deliverable will meet project requirements.

6. The assessment of the situation will include a review of whether or not the non-conformance is likely to re-occur and if so, a description of the measures that will be implemented to prevent this.

7. The NCR event should be resolved at the lowest appropriate decision making level and escalated only if necessary. The NCR process is not meant to replace quick decision-making in the field or replace communications between the parties involved.

8. The status of unresolved NCRs shall be reviewed in any regular progress meetings and in the Quality Audit summaries done by the Project Quality Assurance Manager.

22. **Sub-consultant Information:**
If one or more sub-consultants will be used, provide the name, address, point of contact and phone number for each. Otherwise, leave this section blank.

Firm Name (Name must match as registered with Louisiana's Secretary of State)	Address	Point of Contact and Email Address	Phone Number
Vectura Consulting Services, LLC	4467 Bluebonnet Blvd., Suite A, Baton Rouge, LA 70809-9639	Sheelagh Brin Ferlito, 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. Any information included in this section will be redacted if not required by the advertisement.

Government Street Road Diet & Rounabout at Lobdell Ave.

Design with Community in Mind