



US 71: ICG Railroad Overpass Rehab (HBI)

US 71: Market St Bridge over ICG RR (HBI)

DOTD FORM: 24-102

PROPOSAL TO PROVIDE CONSULTANT SERVICES

(Revised August 11, 2025)

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

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

1. Contract Name as shown in the advertisement.	US 71: ICG RAILROAD OVERPASS REHAB (HBI) US 71: MARKET ST BRIDGE OVER ICG RR (HBI)
2. Contract Number(s) as shown in the advertisement.	CONTRACT NOS. 4400034051
3. State Project Number(s), if shown in the advertisement	H.012008.5 and H.012009.5
4. Prime consultant name (name must match exactly as registered with the Louisiana Secretary of State (SOS) where such registration is required by law; including punctuation; include screenshot from SOS at the end of Section 20)	SDR ENGINEERING 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)	EF0003263 DUNS Number: 968522367
6. Prime consultant mailing address	2820 Continental Drive, Suite 100, Baton Rouge, LA 70808
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	2820 Continental Drive, Suite 100, Baton Rouge, LA 70808
8. Name, title, phone number, and email address of prime consultant's contract point of contact.	Mohsen Shahawy, PhD, PE Principal & COO (850) 222-2737, Ext. 226 shahawy@sdrengineering.com
9. Name, title, phone number, and email address of the official with signing authority for this proposal	Ann Shahawy CEO (850) 222-2737, Ext. 222 ashahawy@sdrengineering.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.



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

3/17/2026

Date:

Pursuant to Act No. 581 of the 2024 Louisiana Legislature Regular Session, proposer further certifies that it does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association based solely on the entity's or association's status as a firearm entity or firearm trade association. In addition, proposer certifies it will not discriminate against a firearm entity or firearm trade association during the term of the contract based solely on the entity's or association's status as a firearm entity or firearm trade association.

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

Firm(s):

Not required.

Firm(s)' %:

12. PAST PERFORMANCE EVALUATION DISCIPLINE TABLE:

Past Performance Evaluation Discipline(s)	% of Overall Contract	SDR (Prime)	ARD	NS	GSRC	TBS	VCS	Each Discipline must total to 100%
Bridge	60%	100%	-	-	-	-	-	100%
Road	10%	-	-	-	-	100%	-	100%
Geotech	10%	-	100%	-	-	-	-	100%
Traffic	10%	-	-	50%	-	-	50%	100%
Survey	7%	-	-	-	-	100%	-	100%
Environmental	3%	-	-	-	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%	60%	10%	5%	3%	17%	5%	

CONSULTANTS:**ARD: Ardaman & Associates, Inc.****SDR: SDR Engineering Inc.****GSRC: Gulf South Research Corporation****TBS: T.Baker Smith, LLC****NS: Neel-Schaffer, Inc****VCS: Vectura Consulting Services, LLC****VECTURA**

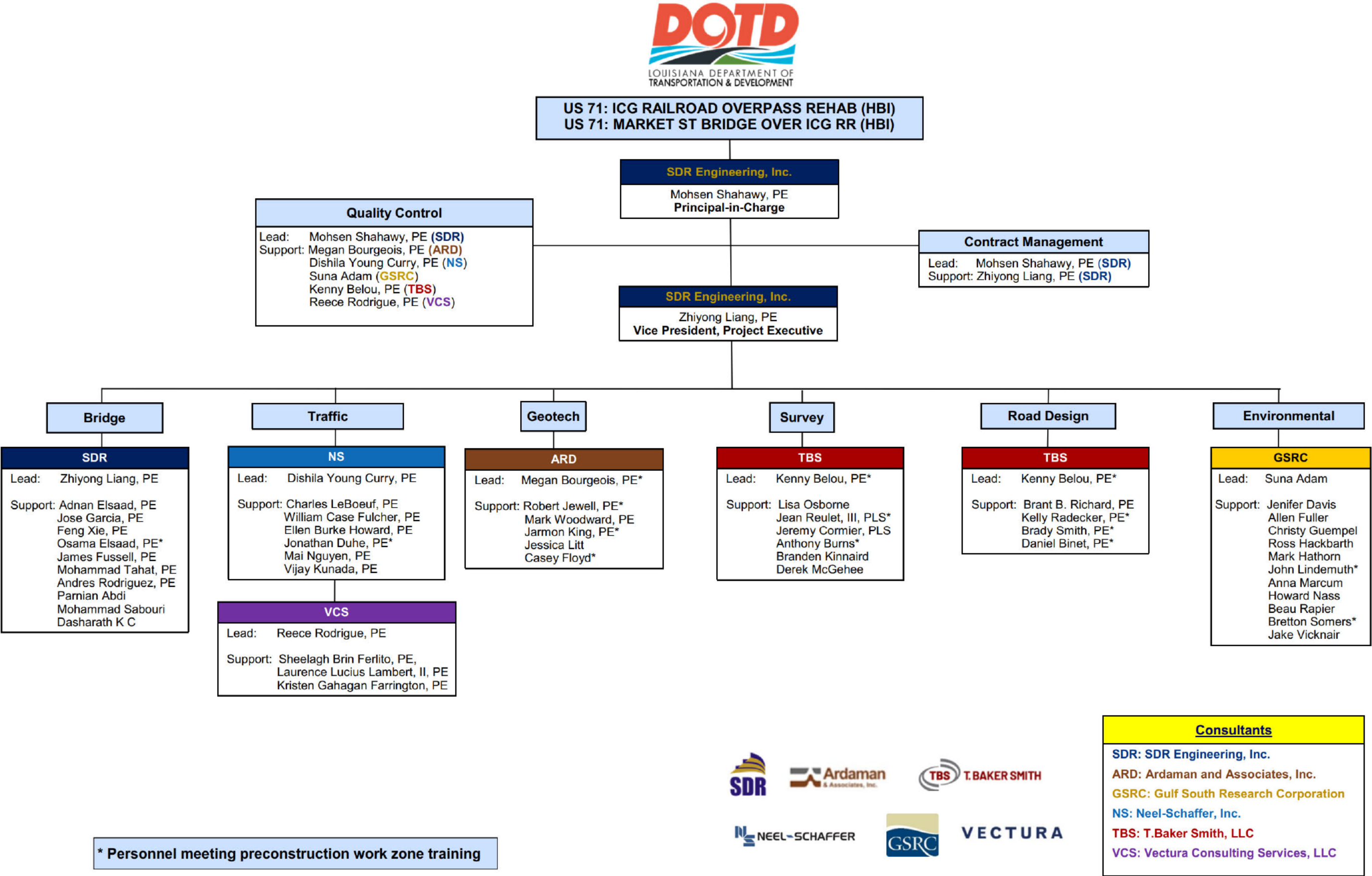
13. TEAM SIZE:

Firm name	DOTD Job Classification	Number of personnel <u>committed</u> to this contract *	Total number personnel available in this DOTD Job Classification (if needed)
SDR Engineering Inc 	Principal	1	2
	Supervisor - Eng	2	3
	Engineer	7	9
	Engineer Intern	6	7
	Inspector - Bridge	6	6
	CADD Drafter	1	2
	Computer Analyst	1	1
	Administrative	1	2
Ardaman & Associates, Inc. 	Administrative	1	1
	CADD Technician	2	2
	Clerical	1	2
	Engineer	1	6
	Engineer Intern	3	6
	Principal	2	3
	Senior Technician	8	9
	Supervisor - Eng	3	3
	Supervisor - Other	3	4
	Technician	11	15
Neel-Schaffer, Inc.	Supervisor - Eng	2	2

	Engineer	5	62
	Supervisor - Eng	1	3
T.Baker Smith 	Engineer	4	4
	Senior Technician	1	6
	Supervisor - Eng	2	4
	Party Chief	2	3
	Supervisor - Other	4	6
Gulf South Research Corporation 	Other (NEPA) Archaeologists	2	4
	Biologist/Wetlands	4	8
	GIS Analyst	2	2
	Clerical	2	2
	Supervisor - Eng	2	2
Vectura Consulting Services, LLC VECTURA	Engineer	2	4
	Engineer Intern	2	2
	Senior Technician	0	2
	Technician	0	2
	Supervisor - Other	0	1
	Clerical	1	1
	Supervisor - Eng	2	2

*For evaluation purposes only, and as referenced in the Scope of Services on page 2 of IDIQ advertisements only, the consultant shall assume the number of concurrently active task orders specified in the advertisement and shall identify the number of **committed** personnel accordingly.

14. ORGANIZATIONAL CHART:



15. MINIMUM PERSONNEL REQUIREMENTS:

MPR No. Do not insert wording from ad	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	Zhiyong Liang, PhD, PE		PE.34873 - Civil	LA	03/31/2026
2					
3					
4	Feng Xei, PE		PE. 43987 - Civil	LA	3/31/2028
5	Jean Reulet, III, PLS		Professional Land Surveyor PLS #5145	LA	03/31/2028
6	Megan Bourgeois, P.E.		PE.36725 - Civil	LA	03/31/2026
7	Jessica Litt		NICET / Generalist, Laboratory No. 141243	LA	10/01/2027
8	Ellen Burke Howard, PE, PTOE, RSP1		PE. 38207 – Civil PTOE 3735	LA All	03/31/2026 08/1/2026
	Kenny Belou, PE		PE.38850 - Civil	LA	09/30/2026
9	Sheelagh Brin Ferlito, PE, PTOE	VECTURA	PE.0025383 PTOE 932	LA	PE / 09/30/2027 PTOE / 09/09/2027
	Laurence Lambert, PE, PTOE, PTP	VECTURA	PE.0029901 PTOE 1303	LA	PE / 3/31/2028 PTOE / 02/03/2028

10	Vijay Kunada, PE, PTOE, PTP	 NEEL-SCHAFFER	PE No. 32145 - Civil, PTOE 2878, PTP 096	LA All All	03/31/26 04/14/28, 11/07/28
11	Mohsen Shahawy, PhD, PE		PE.31465 - Civil	LA	03/31/2027

16. STAFF EXPERIENCE:

Firm employed by: SDR Engineering Inc 				
Name	Mohsen Shahawy, PhD, PE		Years of relevant experience with this employer	26
Title	Principal and COO		Years of relevant experience with other employer(s)	15
Degree(s) / Years / Specialization		PhD / 1984 / Civil Engineering MS / 1981 / Civil Engineering BS / 1976 / Civil Engineering		
Active registration number / state / expiration date		PE.31465 / Louisiana / 03-31-2027		
Year registered	2004	Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities		Principal in charge, design, management, QC/QA		
Dr. Shahawy is the managing principal of SDR. He has 40 years of experience and has published over 180 papers in the areas of prestressed/reinforced concrete performance, LRFD Code issues related to shear performance, structural testing, evaluation, load testing and load rating of bridges, dynamic behavior of bridges, and bridge rehabilitation. He is a Co-author of the Prestressed Concrete Institute (PCI) Bridge Design Manual. He has led SDR'S team in the development of the DOTD Bridge Design and Evaluation Manual and in the development of the LG Girder Details and Design Standards. He has been responsible for the design of <u>more than 90 bridges with spans ranging up to 280 feet, the production of conceptual reports for 40 bridges, and design peer reviews of more than 300 bridges for various authorities.</u>				
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).			
08/19–Present	H.011309: MacArthur Interchange Completion, Phase II, Jefferson Parish, LA Scope of work was to provide two new on-ramp and off-ramp connection between the eastbound of West Bank Expressway (US 90-Z) and Frontage Road, demolish the existing off-ramp, and widen the US 90-Z bridge to accommodate the new ramps. The project consisted of providing all necessary engineering design services (Stage 3) required to construct the two separate ramp structures and the relocation of Frontage Road. To accommodate the new structures for the two ramps, Frontage Road required relocation along with utilities while maintaining all business access. Dr. Shahawy's role(s): performed independent QC/QA of all structure elements and provided guidance to the project team to address review comments at every stage.			
10/16–04/21	H.002980: I-10 over US 165 and MP RR, Jefferson Davis Parish, LA Replacement of two I-10 bridge overpasses at US 165 and MP Railroad. East-bound total bridge length is 765 ft. comprising seven (7) spans. Four (4) spans were made one continuous unit; the other three (3) spans were continuous unit. Design included all elements of bridge structure along with required slope and embankment work. Replacement of the bridge involved complex construction phasing to <u>maintain traffic on the interstate while removing the old structure and constructing the new bridge.</u> To ensure design economy and accelerated construction, DOTD standard precast prestressed concrete girders (LG Girders) were used for the superstructure. Role: lead the development of the construction phasing and carry out QC/QA review of design.			
11/17–10/20	H.011484: US-80 Texas Street Bridge Rehabilitation, Shreveport, LA			



	The bridge consists of a main truss span comprised of two 182 ft. anchor spans and one 520 ft. steel cantilever span, six 102.75 ft. steel deck truss spans, one 91 ft. steel girder span, and 35 reinforced concrete deck girder approach spans of varying span lengths. The scope of work consisted of conducting NBIS element level inspection of the entire bridge, 3-D computer modeling and analysis of existing deficiencies, load rating based on existing conditions, developing scope of rehabilitation including cleaning and painting of steel trusses, design of epoxy-urethane overlay system on deck, CFRP repair of concrete spall for columns, caps and concrete beams, strengthening of steel truss span members, strengthening floor beams and gusset plates, repair of steel plate girder spans, and sealing of joints and pin replacement. Role(s): performed independent QC/QA of all above listed work elements and provided guidance to the project team to address review comments at every stage.
10/18–02/21	H.011487: LA 182 Over Atchafalaya River (Berwick Bay) Bridge Rehabilitation, Lafayette, LA The bridge, built in 1933, is a through truss carrying LA-182 over Atchafalaya River. The bridge consists of three main trusses with span length of 608 ft. each, two deck trusses with span length of 126 ft. each, and 40 concrete T-beam spans with span length of 40 ft. each. The work included performing in-depth inspection of the truss and concrete spans, NDT of the concrete T-beams, load rating the bridge based on observed deficiencies, 3-D modeling of computer models of the truss spans, analysis including design and developing repair details for the steel truss members, gusset plates, reinforced concrete T-beam and deck slab, prepare rehabilitation plans and technical special provisions and construction cost estimate. Role(s): independent QC/QA of all above listed work elements and provided guidance to the project team to address review comments at every stage.
07/15–06/17	Evaluation and Load Rating of Three Major Truss Bridges, Statewide, LA The scope of work included in-depth inspection and 3-D computer modeling of the truss spans to access existing deficiencies and performing load rating of three major truss bridges including the approach spans. 1. Mississippi River Bridge at Vicksburg (4,210 ft) 2. Sunshine Bridge at Donaldsonville (3,327 ft) 3. I-10 Calcasieu River Bridge at Lake Charles (6,617 ft) Role(s): Project Manager, lead engineer. Responsibilities included: QC review of all inspection reports, structural assessment of found deficiencies and determining effect of steel section loss for both members and gusset plates on load rating; developing structural modeling parameters and supervising the team developing the 3-D finite element model for the main truss using LUSAS; and load rating all elements of the truss spans.
06/86–10/00	Complex Bridge Evaluation and Design, Statewide, FL Evaluation and design of complex bridges in Florida. Sample projects include: • Indian River, Vero Beach, FL, Bridge No. 880054 • Big Carlos bridge (#120028), Lee County, FL • Oakland Blvd., Ft. Lauderdale, FL, Bridge No. 860941 • Longboat bridge (#130057), Sarasota, FL • S.R. 706, Jupiter, FL, Bridge No. 930007 • Laurel street bridge (#105503), Tampa, FL • Delray Beach, FL, Bridge No. 930064

Firm employed by: SDR Engineering Inc					
Name	Zhiyong Liang, PhD, PE		Years of relevant experience with this employer	17	
Title	Vice President		Years of relevant experience with other employer(s)	12	
Degree(s) / Years / Specialization			PhD / 2008 / Civil Engineering MS / 2004-2005 / Civil Engineering-Computer Science BS / 1996 / Civil Engineering		
Active registration number / state / expiration date			PE.34873 / Louisiana / 3-31-2026 FHWA-NHI Bridge Inspection Training		
Year registered	2009	Discipline	Civil Engineering-Structures		
Contract role(s) / brief description of responsibilities			Project management, bridge inspection, bridge design		
Dr. Zhiyong Liang specializes in the inspection, design, load rating, and condition evaluation of steel and concrete bridges. He has served as both Project Manager and Engineer of Record on numerous successful projects involving bridge inspection, load rating, design, testing, and rehabilitation. With a multidisciplinary background in Civil Engineering and Computer Science, Dr. Liang brings a unique blend of technical expertise and innovation to his work. He is proficient in operating a wide range of bridge inspection and testing equipment, conducting advanced data analysis, and developing custom software tools to support bridge assessment and data management. Dr. Liang has a strong foundation in finite element modeling and structural analysis, complemented by extensive hands-on experience at bridge sites. He played a key role as Lead Engineer in the development of the DOTD Bridge Design and Evaluation Manual (BDEM), contributing to statewide standards and practices. He is also certified through the FHWA-NHI Bridge Inspection Training Program and is qualified to serve as a bridge inspection manager and team leader.					
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
08/19 – Present	H.011309: MacArthur Interchange Completion, Phase II, Jefferson Parish, LA Scope of work is to provide two new on-ramp and off-ramp connection between the eastbound of West Bank Expressway (US 90-Z) and Frontage road, demolish the existing off-ramp, and widen the US 90-Z bridge to accommodate the new ramps. The project consisted of providing all necessary engineering design services (Stage 3) required to construct the two separate ramp structures and the relocation of Frontage road. To accommodate the new structures for the two ramps, Frontage road required relocation along with utilities while maintaining all business access. SDR is the prime consultant and <u>Dr. Liang responsibilities are as follows:</u> • Lead the design and plans development of the superstructure. • QCQA review of substructure design and plans production. • Lead construction cost estimate				
10/18–Present	H.011487: LA 182 Over Atchafalaya River (Berwick Bay) Bridge Rehabilitation, Lafayette, LA The bridge consists of three (3) main trusses with span length of 608 feet each, two (2) 126 feet deck truss spans, and 40 concrete T-beam spans with length of 40 feet. The scope included inspection, load test, load rating, and rehabilitation design of the entire bridge. SDR is the prime consultant and Dr. Liang served as the Project Manager overseeing the following tasks: • Led the in-depth inspection and non-destructive test (NDT) using strain gauges. • Led load rating and rehabilitation scope development.				



	Led the rehab design and preparation of construction plans.
11/2015-10/2017	H.011484): US-80 Texas Street Bridge Rehabilitation, Shreveport, LA The bridge consists of a main truss span comprised of (2) 182' anchor spans and one 520' steel cantilever span, (6) 102'-9" steel deck truss spans, (1) 91' steel girder span, and (35) reinforced concrete deck girder approach spans of varying span lengths. As the project manager, Dr. Liang was responsible for coordinating all activities with the DOTD Project Manager and participating in the following tasks: - Led the inspection and load rating activities. - Review the estimated quantities and prepare the final report. - Led design of the rehabilitation schemes and prepared the final plans. - Construction Support.
3/2015-8/2015	H.009859.5: Inspection & Load Rating of 18 Load-Posted Complex Bridges, Statewide, LA This project was to assess 18 load-posted complex bridges that are located on state-approved truck routes, with the ultimate goal of eliminating their current postings. Bridge types include truss bridges, movable bridges, and pontoon bridges. The scope included collecting and compiling all pertinent information, load rating the bridges using standard analysis, performing an in-depth field investigation of the superstructures and substructures, analyzing, and rating deficient structures using refined 3-D FEM analysis, and providing a detailed evaluation report. Four movable bridges were assessed in this project. SDR was the prime consultant and Dr. Liang served as the Project manager overseeing the different tasks and leading the bridge inspection, assessment, and load rating.
07/13-04/15	H.010498: Luling Bridge Rehabilitation, St. Charles Parish, LA The project was the evaluation and rehab of Luling Bridge (Hale Boggs Memorial Bridge), a five-span cable-stayed bridge with twin steel towers supporting the cables and a floor beam-stringer deck system. <u>Dr. Liang's responsibilities are as follows:</u> In-depth inspection of the bridge. - Load rating of the main cable-stayed spans using 3D finite element analysis. - Investigation of the cause of fatigue cracks and development of rehab plans.
3/2010-5/2012	H.005380.5: Evaluation and Load Rating of Three Major Truss Bridges, Statewide, LA This project was a complete evaluation and load rating of three major truss bridges including the approach spans: Mississippi River Bridge at Vicksburg (4,210ft), Sunshine Bridge at Donaldsonville (8,236ft), and I-10 Calcasieu River Bridge at Lake Charles (6,617ft). The bridges consisted of main steel truss spans, prestressed concrete or steel approach spans and reinforced concrete or steel bent caps. Dr. Liang was the project manager and involved in every detail in this project: - Determine the overall scope of the project and the major analysis methods/software to be used. - Review the inspection report and determine the effect of section losses and deficiencies on load rating. - Build the finite element model for the main truss and rate the truss members and gusset plates. - Load rate the approach spans using VIRTIS; load rate the substructure using RC-Pier and spreadsheets. - Write the final report and supervise the junior engineers.

Firm employed by: SDR Engineering Inc					
Name	Adnan Elsaad, PE		Years of relevant experience with this employer	13	
Title	Senior Bridge Engineer & Bridge Inspector		Years of relevant experience with other employer(s)	20	
Degree(s) / Years / Specialization		BS /1981/ Civil Engineering FHWA-NHI-13055 Safety Inspection of In-Service Bridges			
Active registration number / state / expiration date		PE.34533/ Louisiana / 9-30-2027			
Year registered	2009	Discipline	Civil Engineering-Structures		
Contract role(s) / brief description of responsibilities			Senior Bridge Engineer and Bridge Inspection Leader		
Mr. El-Saad has over 30 years of experience in bridge design, inspection, evaluation, and non-destructive testing. Mr. El-Saad has planned, instrumented, and executed over 120 bridge tests. He has strong experience in numerous activities for construction engineering inspection and design of AASHTO bridges and precast concrete segmental bridges. He has extensive experience and specialization in bridge design; detailed knowledge of both steel and concrete bridge design including concrete box culverts, mast arms, sign structures, foundation analysis, and retaining wall structures. He served as a lead bridge engineer for FDOT and TXDOT for 11 and 9 years, respectively.					
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the time specified in the applicable MPR(s).				
10/18–02/21	H.011487: LA 182 Over Atchafalaya River (Berwick Bay) Bridge Rehabilitation, Lafayette, LA The major through truss bridge carries LA 182 over the Atchafalaya River (Berwick Bay). The bridge consists of 47 spans with a total length of 3,746'. The approach spans consist of two (2) reinforced concrete slab spans, 40 reinforced concrete T-beam spans, and two (2) deck truss spans. The navigational spans consist of three (3) identical through truss spans. The substructure is comprised of concrete pile bents, two-column concrete bents, and concrete piers. Mr. Elsaad's responsibilities are as follows: • Inspection lead engineer with major tasks including gathering all pertinent structure related information, reviewing all existing records, developing in-depth inspection plans, performing NBIS element-level inspection of the entire bridge, instrumentation, and load testing of the approach concrete T-beam spans. • Lead designer of the substructure rehabilitation, bridge deck, concrete approach spans, and QC/QA of the superstructure rehabilitation.				
05/20–Present	H.014288.5-2: LA 82 Mermentau MB Rehab (G Chenier) (HBI), Cameron Parish, LA This is a swing truss bridge built in 1959, with span length of 204 ft on the truss span and a total bridge length of 1049 ft including the approach concrete slab spans and steel I-beam spans. The major tasks were to inspect, and load test the bridge, then develop the rehabilitation plans to strengthen the bridge so that the posting can be removed. <u>Mr. Elsaad's responsibilities are as follows:</u> • Develop testing plan, install strain gauges, and perform load test. • Prepare rehabilitation plans.				
08/19–Present	H.011309: MacArthur Interchange Completion, Phase II, Jefferson Parish, LA Scope of work is to provide two new on-ramp and off-ramp connection between the eastbound of West Bank Expressway (US 90-Z) and Frontage Road, demolish the existing off-ramp, and widen the US 90-Z bridge to accommodate the new ramps. The project consisted of providing all necessary engineering design services (Stage 3) required to construct the two separate ramp structures and the relocation of Frontage Road. To accommodate the new structures for the two ramps, Frontage Road required				

	relocation along with utilities while maintaining all business access. SDR is the prime consultant and <u>Mr. Elsaad's responsibilities</u> are as follows: • Independent constructability review of construction plans. • Verification and review of construction cost estimate.
05/16–04/18	H.011484: US 80 Texas Street Bridge over Red River Rehabilitation, Caddo Parish, LA The bridge consists of a main truss span, six deck truss spans, one steel girder span, and thirty-five reinforced concrete deck girder spans. Mr. Elsaad's responsibilities are as follows: • Serving as Inspection lead engineer collecting all pertinent structure related information, performing NBIS element-level inspection of the entire bridge, performing NDT of the pins, coordinating traffic control and all required inspection equipment including snoop truck, boat access and manlifts. • Preparing a comprehensive report containing all inspection results. • Supporting the rehabilitation design of the concrete and steel members repairs.
06/19–12/19	H.009730.5: Non-Destructive Evaluation of Two Movable Bridges, Terrebonne Parish, LA The scope of work was to evaluate two (2) swing movable bridges that are posted at 15-25 tons and 25-40 tons. The scope was carried out by load testing and Finite Element Analysis (FEA) for the controlling span(s) of the two bridges. <u>Mr. Elsaad responsibilities include</u> reviews of the existing documents, development of testing plan, field instrumentation of the bridges, and review of final reports. The two (2) movable bridges are: • Recall No. 003390 (Steel Plate Girder Swing Span), Terrebonne Parish, LA • Recall No. 003432 (Steel Plate Girder Swing Span), Terrebonne Parish, LA
07/13 – 03/16	Luling Bridge, St. Charles Parish, LA Luling Bridge is a 5-span, 2,745 feet total length cable-stay bridge with two steel trapezoidal box girders supporting an orthotropic steel deck over the Mississippi River. This project included inspection and evaluation of the existing conditions of the bridge with particular attention needed in the area of fatigue prone connections, and an evaluation of the overlay system for determination of the best alternative for replacement of the overlay system. Mr. Elsaad responsibilities include • Field inspection of the 14-ft-high steel box girders on the main spans • Quality control reviews of the rehabilitation plans and specifications.
07/17–03/20	NBIS Bridge Inspections for FDOT& TXDOT The projects involved inspection and assessment of 486 bridges and 500 sign support structures, including routine and in-depth inspections. The inspection/evaluation reports included recommendations for rehabilitation/replacement with the associated costs. Served as lead engineer for the structure rehabilitation of four (4) movable bridges. The work also involved instrumentation and load testing of critical members controlling the load rating. The test results were incorporated in significant refinements in the design of the rehabilitation with associated reduction in construction costs.

Firm employed by: SDR Engineering Inc.					
Name	Jose “Pepe” Garcia, MS, PE		Years of relevant experience with this employer	9	
Title	Operational Manager, Sr. VP		Years of relevant experience with other employer(s)	30	
Degree(s) / Years / Specialization		MS / 1978 / Civil Engineering BSE / 1975 / Civil Engineering FHWA-NHI-13055 Safety Inspection of In-Service Bridges FHWA NHI-130078 Fracture Critical Inspection for Steel Bridges			
Active registration number / state / expiration date		PE.42014 / Louisiana / 03-31-2026			
Year registered	2017	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Mr. Garcia is responsible for technical and project management related to the inspection and assessment of the condition of bridges and ancillary structures and support of asset maintenance.		
Jose “Pepe” Garcia has over 39 years of professional experience working in private and public industry. He served as technical lead and project manager for several national and international proposals and projects for bridge inspection, assessment, and preservation. Mr. Garcia served as Principal Investigator and Program Manager for an FHWA Long-Term Bridge Preservation (LTBP) program. Over 20 years, Mr. Garcia held various positions at the Florida Department of Transportation (FDOT), which included progressive responsibility in bridge and roadway maintenance and preservation, structures design, and construction engineering including cost center management and office administration. Mr. Garcia served as structures Maintenance Engineer and Construction Resident Engineer for structures repair and rehabilitation for FDOT Districts 1 & 7. He also supported statewide research and development initiatives. Bridge inventory responsibility comprehended thousands of simple and complex bridges, and ancillary roadway structures with annual financial obligation exceeding \$30 million. During his SDR tenure, he performed activities as designer, project manager for multidisciplinary technical, program management, emergency response and administrative activities. Experience involved interaction with federal and local government agencies and multiple engineering disciplines and specialties, including but not limited to geotechnical, mechanical, electrical, scour hydraulics, instrumentation, traffic control, roadway, permitting and environmental.					
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage,” “designed girders”, “designed intersection”, etc. Experience dates should cover the time specified in the applicable MPR(s).				
02/19 – present	Florida Drawbridge, Inc. (FDOT District 4) Project engineer for inspection of bridges for FDOT District 4. NBIS Inspection of simple and complex (segmental and movable) bridges, signing and sealing reports and project coordination. Complex bridges included a total of 64 movable bridges located throughout West Central and South Florida. Movable bridge types encompass Hopkins Frame, Vertical Lift, Rolling Gear, Swing Gear and Hydraulic, Strout (Special), Hydraulic, and Electrical systems, Hydraulic Hopkins system.				
03/17 – 12/18	FDOT District 1 and 7 highway bridge and other structures inspection. Project manager responsible for inspecting, signing, and sealing FDOT/NBI inspection reports for simple and complex bridges, including movable bridges, mechanical and electrical inspection and emergency response inspection, assessment and rehabilitation.				

02/17 – 06/18	Inspection of the Ft. Lauderdale-Hollywood International Airport Terminal Project engineer, under contract with Keith and Associates, responsibility included oversight of inspection, coordination with clients, and signing and sealing inspection reports.
04/13 – 04/18	Emergency Management Response, FDOT District 7 Responsibilities include pre- and post-hurricane event planning and catastrophic incident response and corrective action plan development, repair and rehabilitation plans preparation and construction inspection, contractor selection and claims management. Structure inventory included over 1,300 bridges varying in complexity, including over 30 (state & local agency) movable bridges, and hundreds of ancillary structures.
03/15 – 08/17	NBIS Bridge Inspections, Florida Department of Transportation Districts 1 and 7 Project manager responsible for planning and directing all aspects of field inspection, load rating and structural reports for over 1,200 bridges in nine counties of central and western Florida. These structure types included 12 swing span and 4 double leaf bascule bridges, closed spandrel concrete and stone arches, open spandrel arches, and culverts.
01/13 – 09/15	Longboat over Lagoon Pond, Sarasota Florida (FDOT) - Bascule Bridge Rehabilitation Designed, detailed, and checked bridge rehabilitation construction plans. Duties included repairs to the damage to the abutments and approach concrete slabs, heat straightening of damaged elements, replacement of the steel grid deck on the movable span and design of the structural upgrades to existing pedestrian walkway along the bridge. Developed construction details and plans for the rehabilitation and upgrading of the operator's house. Also, assisted in the design of structural supports for Intelligent Transportation System and sign support for Cantilever overhead signs. Provided construction support and site inspection.
03/08 – 01/10	I-75 over CR 574, SCL Railroad, Woodberry Road and CSX Railroad Bridges Project manager for accelerated partial deck replacement and other bridge superstructure repairs. Project included both design and construction engineering inspection for the replacement of deteriorated concrete deck sections using precast panels and carbon fiber reinforcement. All work was performed at non-peak traffic hours to maximize safety and minimize the impact to the traveling public.
10/99 – 06/08	Bob Graham Sunshine Skyway Bridge (I-275 over Tampa Bay) Project principal for post-tensioning system assessment and rehabilitation. The 4.1-mile (6.6-kilometer) bridge consists of a 4,000-foot-long (1,219-meter) cable-stayed bridge main span, 4,860 feet (1,481 meters) of high-level approach spans, and 13,020 feet (3,968 meters) of low approach spans. The main span bridge, high-level approaches, superstructure, and all columns are post-tensioned precast concrete segments. Work included the corrosion and structural investigation and rehabilitation of post-tensioned elements including stay cable and internal and external tendons.

Firm employed by: SDR Engineering Inc					
Name	Osama Elsaad, ME, P.E.		Years of relevant experience with this employer	9	
Title	Structural/Bridge Engineer		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization		ME / 2017 / Civil Engineering (Structural) BS / 2016 / Civil Engineering			
Active registration number / state / expiration date		PE.45668 / Louisiana / 09-30-2027 FHWA-NHI Bridge Inspection Training			
Year registered	2021	Discipline	Civil Engineering-Structures		
Contract role(s) / brief description of responsibilities		Structural Bridge Engineer, bridge inspection and testing			
Osama Elsaad is a structural engineer with 8 years of experience. His involvement on projects has included on-site inspection, bridge instrumentation & load testing, emergency bridge repair projects, bridge design, load rating evaluation, rehabilitation projects, and quantity/cost estimate preparation. He has been a Project Manager on multiple bridge design projects, bridge inspections, and bridge instrumentation & load testing. He has also completed the FHWA-NHI Bridge Inspection Training.					
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
7/24-Present	H.010015 LA 143 Bayou D'Arbonne Bridge, Ouachita Parish, LA Scope of work is to design and develop a new bridge to replace the existing bridge over Bayou D'Arbonne. The project consists of providing all necessary engineering design service (Stage 3) required to construct the new bridge structure. The new bridge consists of prestressed concrete LG-45 girders with a total bridge length of 500'-0". <u>Osama Elsaad responsibilities are as follows:</u> • Design the superstructure. • Lead the design plan development. • Construction cost estimate. • QCQA review of bridge plans.				
08/19 – Present	H.011309: MacArthur Interchange Completion, Phase II, Jefferson Parish, LA Scope of work is to provide two new on-ramp and off-ramp connection between the eastbound of West Bank Expressway (US 90-Z) and Frontage road, demolish the existing off-ramp, and widen the US 90-Z bridge to accommodate the new ramps. The project consisted of providing all necessary engineering design services (Stage 3) required to construct the two separate ramp structures and the relocation of Frontage road. To accommodate the new structures for the two ramps, Frontage road required relocation along with utilities while maintaining all business access. SDR is the prime consultant and <u>Osama Elsaad responsibilities are as follows:</u> • Design concrete footings, drilled shafts, continuous flight auger piles, and curtain walls. • Plan development. • QCQA review of bridge plans. • Construction cost estimate.				

11/24-7/25	Wilson Island Bridge over Palatklakaha River, Lake County, FL Scope of work is to design a new bridge over the Palatklakaha River in Lake County, FL. The project consists of providing all necessary engineering design service (Stage 3) required to construct the new bridge structure. The new bridge consists of prestressed concrete FIB-36 girders with a total bridge length of 100'-0". <u>Osama Elsaad responsibilities are as follows:</u> • Project Manager for bridge design. • Design the superstructure. • Lead the design plan development. • Construction cost estimate. • QCQA review of bridge plans.
08/21-11/22	H.009859: LA0001 OVER PLAQUEMINE BRIDGE, Iberville Parish, LA The scope of work was to perform an in-depth inspection to evaluate the bridge, perform load testing, and develop rehabilitation plans on all deficient steel members of the truss span, approach spans, and substructures. <u>Osama Elsaad responsibilities are as follows:</u> • Led the in-depth inspection of the entire superstructure and substructure. • Led and performed the instrumentation and load testing of the deficient members. • Developed rehabilitation plans of all the deficient steel members.
05/19-01/20	H.009859.5: Evaluation & Load Testing of Five Posted Bridges, Statewide, LA The scope of work was to evaluate five (5) bridges, three (3) of which are movable bridges, that are posted for a load lesser than the Legal Loads and/or Special Hauling Vehicles. The evaluation was carried out utilizing load rating analysis and load testing coupled with detailed 3-D Finite Element Analysis with the aim of removing current load posting. <u>Osama Elsaad responsibilities were as follows:</u> • Develop finite element bridge models. • Instrument and field test deficient members according to instrumentation and load configuration plans. • Perform load rating of moveable bridges using AASHTOWare BrR. • Update finite element model and BrR models with adjustment factors. • Develop final report with field test results with updated load rating.
4/18-8/18	I-10 East at High Rise Bridge Fire Damage, Orleans Parish, Louisiana The bridge was subjected to fire that damaged the substructure and superstructure. The scope of the project includes in-depth inspection, rehabilitation plans, and construction support. The rehabilitation plans consisted of jacking and bearing replacement, concrete restoration of the superstructure and substructure, and Carbon Fiber Reinforced Polymer (CFRP) laminate application to the bent caps, columns, and concrete girders. <u>Osama Elsaad responsibilities are as follows:</u> • Performed in-depth inspection. • Developed rehabilitation plans. • Provided construction support.

Firm employed by: SDR Engineering Inc					
Name	Feng Xie, MS, PE		Years of relevant experience with this employer	10	
Title	Engineer Analyst		Years of relevant experience with other employer(s)	1	
Degree(s) / Years / Specialization			MS / 2014 / Civil Engineering-Structures BS / 2012 / Civil Engineering-Structures		
Active registration number / state / expiration date			PE.43987 / Louisiana / 03-31-2028 FHWA-NHI Bridge Inspection Training		
Year registered	2019	Discipline	Civil Engineering-Structures		
Contract role(s) / brief description of responsibilities			Bridge inspection, NDT, load test, and load rating lead.		
Mr. Xie is a seasoned engineer with expertise in the design, inspection, rehabilitation, and load rating of concrete, prestressed concrete, steel, and timber bridges. He has contributed to the successful delivery of numerous projects involving bridge design, repair, and structural analysis, integrating advanced modeling techniques with extensive field experience. With a solid foundation in civil engineering, he brings both technical rigor and practical judgment to enhance structural performance, extend service life, and ensure the safety of diverse bridge systems.					
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
01/23 – 10/23	H.015352.5: US 190: US 61 Overpass Int. Repairs, East Baton Rouge, LA The objective was to strengthen the US 190 over US 61 bridges to meet HL-93 inventory design requirements and repair deficiencies. This included conducting bridge inspections and load tests, preparing a comprehensive report highlighting recommended repair and strengthening measures, and developing a rehabilitation plan. Feng’s responsibilities included: • Led the bridge in-depth inspection to identify all structural deficiencies • Reviewed the structural analysis, traffic control plan, and construction sequences • Led the development and review of the rehabilitation plan				
03/23 – 06/23	H.015034: LA308 & 3162 MB RPRS (GLDN MDW & GALL) (HBI), Lafourche, LA The Bayou Lafourche bridge, built in 1970, featured a 104 ft Steel Tower Vertical Lift main span and four 25 ft concrete slab approach spans, totaling 204 ft in length. The bridge’s superstructure is in poor condition. The objective is to inspect the bridge, identify the deficient elements, and develop a rehabilitation plan for the bridge. Feng’s responsibilities included: • Led and performed the in-depth inspection of the bridge • Reviewed the bridge inspection report and recommendations for repairs • Reviewed bridge rehabilitation plan				
05/21 – 04/22	H.014288.5-2: LA 82 Mermentau River MB (G Chenier) Bridge Rehabilitation, Cameron, LA This 1049-foot movable bridge was built in 1959 and was identified as a Preservation Priority Bridge. The main span of this bridge is a 204 ft swing steel low truss span. Its approaches comprise (26) concrete slab spans of 20 ft span length and (8) steel I-beam spans of 40 ft span length. Feng’s responsibilities included: • Prepared bridge inspections and evaluated structural members for deficiencies. • Conducted structural analysis, designed repair, and strengthening details for structural members • Led the development of the bridge rehabilitation plan				



10/18 – 02/20	H.011487: LA 182 Over Atchafalaya River (Berwick Bay) Bridge Rehabilitation, Lafayette, LA The bridge has three 608-ft main trusses, two 126-ft deck trusses, and forty 40-ft concrete T-beam spans. This project involved development of a rehabilitation plan for deficient structural components of Long-Allen Bridge. Feng's responsibilities included: • Identified the deficient structural components during inspections • Conducted load testing of the reinforced concrete approach spans • Reviewed bridge plans and load rating analysis of the structures • Development of rehabilitation plans for the deficient members
01/17-07/17	H.002980: I-10 Overpass Over US 165 & MP RR, Jefferson Davis Parish, LA This project consisted of structural design and plan development for the replacement of EB and WB of I-10 overpass over US 165 and MP Railroad bridges. The total length of each bridge is 765 feet with a unit of four continuous spans and a unit of three continuous spans. Feng's responsibilities were as follows: • Structural analysis and design of the substructures • Development of substructure construction plans
06/16-07/17	H.012302: I-10: WB on-Ramp From US-61, Ascension Parish, LA A curved steel girder in a bridge on US-61, ramp K over I-10 interstate, which is located in Ascension Parish was struck by an over-height truck. As a result, the girder was damaged. This project consisted of the evaluation of the damage and the development of a rehabilitation plan. Feng's responsibilities were as follows: • Reviewed incident related documents, site visits, and damage assessment • Structural analysis and development of the repair plan • Instrumentation and monitoring of the bridge before the removal of the damaged portion and after installation of the replacement segment
01/16-07/17	H.011484: US-80 Texas Street Bridge Rehabilitation, Shreveport, LA This project consisted of the in-depth inspection, load rating and rehabilitation of the US 80 Texas Street Bridge located in Shreveport, Louisiana. The bridge consists of a main truss span comprised of (2) 182' anchor spans and one 520' steel cantilever span, (6) 102'-9" steel deck truss spans, (1) 91' steel girder span, and (35) reinforced concrete deck girder approach spans of varying span lengths. Feng's responsibilities included: • Performed in-depth field investigations of the bridge members using articulating lifts • Reviewed the truss spans as well as approach spans' models while considering structural deterioration • Development of truss rehabilitation plan
07/14 -03/15	H.010498: Luling Bridge Rehabilitation, St. Charles Parish, LA This project consisted of the design of traffic control plans, developing deck overlay repair plans, and analyzing the impact on cable stress and stability using the 3D-Finite element method while replacing the deck overlay on a 5-span 2745ft. long cable-stayed bridge built in 1983. Feng's responsibilities included: • Modeled and analyzed the impact on both superstructure and substructure when replacing the cables using FEA • Investigated result accuracy of different analytical models • Prepared the analysis report explaining the methodology and assumptions

Firm employed by: SDR Engineering Inc					
Name	James Fussell, ME, PE		Years of relevant experience with this employer	11	
Title	Bridge Engineer		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization			ME / 2014 / Structural Engineering BS / 2013 / Civil Engineering FHWA-NHI-13055 Safety Inspection of In-Service Bridges		
Active registration number / state / expiration date			PE.43706 / Louisiana / 03-31-2026		
Year registered	2019	Discipline	Civil Engineering-Structures		
Contract role(s) / brief description of responsibilities			Design, Analysis, Load Rating, Inspection, Drafting		
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the time specified in the applicable MPR(s).				
Mr. Fussell has over 6 years of experience as a bridge engineer. His current focus is primarily in the areas of bridge design, load rating, and rehabilitation with experience in bridge testing and inspection. His involvement on projects has included new bridge design, emergency repair projects, load rating evaluation and reporting, on-site construction support and inspection, and bridge instrumentation testing. Following are major projects on which he served as a lead engineer.					
08/19 – Present	H.011309: MacArthur Interchange Completion, Phase II, Jefferson Parish, LA Scope of work is to provide two new on-ramp and off-ramp connections between the eastbound of West Bank Expressway (US 90-Z) and Frontage Road, demolish the existing off-ramp, and widen the US 90-Z bridge to accommodate the new ramps. The project consisted of providing all necessary engineering design services (Stage 3) required to construct the two separate ramp structures and the relocation of Frontage Road. To accommodate the new structures for the two ramps, Frontage Road required relocation along with utilities while maintaining all business access. SDR is the prime consultant and <u>Mr. Fussell's responsibilities are as follows:</u> • Lead the substructure design and plan development. • QC of drainage design, 3D modeling, superstructure design, and bridge quantities.				
10/18 – 02/21	H.011487: LA 182 Berwick Bay Bridge Rehabilitation, St. Mary, LA The major through truss bridge carries LA 182 over the Atchafalaya River (Berwick Bay). The bridge consists of 47 spans with a total length of 3,746'. The approach spans consist of two (2) reinforced concrete slab spans, 40 reinforced concrete T-beam spans, and two (2) deck truss spans. The navigational spans consist of three (3) identical through truss spans. The substructure is comprised of concrete pile bents, two-column concrete bents, and concrete piers. Mr. Fussell's responsibilities included: • Preparing the inspection report and rehabilitation recommendations. • Rehabilitation design of the approach deck truss spans, and main truss spans. • Led construction plans development.				
05/19–01/20	H.009859.5: Evaluation and Load Testing of Five Posted Bridges, Statewide, LA				



	The scope of work was to evaluate five (5) bridges, three (3) of which are movable bridges, that are posted for a load lesser than the Legal Loads and/or Special Hauling Vehicles. The evaluation was carried out utilizing load rating analysis and load testing coupled with detailed 3-D Finite Element Analysis with the aim of removing current load posting. <u>Dr. Seliem's responsibilities were as follows:</u> • Inspection team leader conducting hands-on element inspection of superstructure and substructure. • Development of instrumentation planning, and review/validation of diagnostic load testing results. Review of final reports and conveyance of results.
05/16-04/18	H.011484.5: US 80 Red River Bridge Inspection, Load Rating, and Rehabilitation, Shreveport, LA The US 80 Texas St. Bridge is a historic truss bridge in Shreveport, LA that has undergone inspection, load rating, and rehabilitation design. The complex structure consists of two 182' anchor spans and one 520' steel cantilever span, six 102'-9" steel deck truss spans, one 81' steel girder span, and 35 reinforced concrete deck girder approach spans of various lengths. Considering the inspection, the load rating was performed using AASHTOWARE Bridge Rating for the approach spans, deck truss spans, main truss spans, truss members, and gusset plates. <u>Mr. Fussell's responsibilities were as follows:</u> • In-depth field investigation of the truss and approach spans, as well as the various column bents and piers. The entire structure was inspected by the SDR team to determine current conditions and critical members. • Preparation of the inspection report and organization of the inspection figures and tables. • The load rating was performed using AASHTOWARE Bridge Rating for the approach spans, deck truss spans, main truss spans, truss members, and gusset plates. • Considering the inspection and load rating findings, investigation of repair procedures such as heat straightening and paint containment systems for truss configurations. • Extensive drawings were developed using MicroStation for repair procedures of the superstructure and substructure, along with re-producing shop drawings of members to be repaired.
03/15-08/15	H.009859.5: Load Rating of 18 Bridges, Statewide, LA The project involved the load rating of 18 existing load-posted bridges consisting of swing spans, concrete box girders, truss spans, and continuous steel plate girders to determine if the posting could be removed. This scope included collecting and compiling all pertinent information, load rating the bridges using standard analysis, performing an in-depth field investigation, analyzing, and rating deficient structures, and providing a detailed evaluation report. <u>Mr. Fussell's project tasks involved the following:</u> • In-depth field investigation to determine critical members, current structure conditions, and most efficient load rating procedure. • Extensive modeling of the structures using AASHTOWARE Bridge Rating and Midas for 3D FEM analysis. • Detailed reports were developed for each bridge to summarize the load rating results, along with posting recommendations based on the results.

Firm employed by: SDR Engineering Inc 					
Name	Mohammad Tahat, PhD, PE		Years of relevant experience with this employer	3	
Title	Structural/Bridge Engineer		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization		PhD / 2023 / Civil Engineering MS / 2019 / Civil Engineering BS / 2015 / Civil Engineering			
Active registration number / state / expiration date		PE. 0049473/ Louisiana / 03-31-2027			
Year registered	2024	Discipline	Civil Engineering-Structures		
Contract role(s) / brief description of responsibilities		Structural Bridge Engineer, bridge inspection and testing			
Mohammad Tahat is a structural engineer with two years of experience focusing on bridge design, load rating, load testing and inspection. He worked on bridge design, inspections, bridge instrumentation load testing and analysis, bridge jacking, and rehabilitation projects. He is also involved in projects including load rating evaluation and reporting. He has experience in load rating analysis of concrete bridges, steel bridges, and truss bridges.					
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
7/24-Present	H.010015 LA 143 Bayou D'Arbonne Bridge, Ouachita Parish, LA Scope of work is to design and develop a new bridge to replace the existing bridge over Bayou D'Arbonne. The project consists of providing all necessary engineering design service (Stage 3) required to construct the new bridge structure. The new bridge consists of prestressed concrete LG-45 girders with a total bridge length of 500'-0". <u>Mohammad Tahat responsibilities are as follows:</u> • Design the substructure. • Design the sheet piles. Design plan development.				
7/24-Present	H.009859.5 Load Rating of 114 Bridges H.009859.5: TO # 7 Load Rating of 89 Bridges H.009859.5: 44-31061 TO1 Load Rating of 300 Bridges Performed load rating of concrete bridges, steel bridges, and culverts, including truss bridges, swing spans, railroad flat car bridges, and curved steel bridges. Mohammad Tahat was responsible for load rating complex bridges using 3-D finite element modeling and specialized analyses to determine accurate ratings and prepare load rating reports. He also served as a reviewer for numerous bridges in these projects.				
11/24-7/25	Wilson Island Bridge over Palatlahaha River, Lake County, FL Scope of work is to design a new bridge over the Palatlahaha River in Lake County, FL. The project consists of providing all necessary engineering design service (Stage 3) required to construct the new bridge structure. The new bridge consists of prestressed concrete FIB-36 girders with a total bridge length of 100'-0". <u>Mohammad Tahat responsibilities are as follows:</u> • Design the Substructure.				

	Design the sheet piles. Design plan development.
7/24-11/24	H.009730.5 TO#3: US-80 Texas Street over Red River Bridge, Shreveport, LA The bridge consists of 884' main truss span, (6) 103' approach deck truss spans, (1) 81' steel girder span, and (35) 24'-51' reinforced concrete deck girder spans. The scope was to perform a routine, in-depth, and fracture critical inspection of the bridge and create an inspection report in InspectX. The inspection was in conformance with AASHTO Manual for Bridge Evaluation, the NBIS, and LADOTD Bridge Inspection Manual. As the Bridge Engineer, Mohammad Tahat is responsible for the following tasks: Inspect bridge elements, calculate quantities, and upload InspectX inspection report.
5/24-7/24	H.009730.5 TO#3: I-20 over Mississippi River Bridge, Vicksburg, MS The bridge consists of 1,716' main truss span, (3) 426' approach truss spans, (3) 127' steel girder spans, (3) 170' two-girder system spans, (1) 360' composite steel girder span, and (101) 60' & 80' prestressed concrete girder spans. The scope was to perform a routine, in-depth, and fracture critical inspection of the bridge and create an inspection report in InspectX. The inspection was in conformance with AASHTO Manual for Bridge Evaluation, the NBIS, and LADOTD Bridge Inspection Manual. As the Bridge Engineer, Mohammad Tahat is responsible for the following tasks: Inspect bridge elements, calculate quantities, and upload InspectX inspection report.
8/23-11/23	H.009730.5 TO#1: LA 3213 over Mississippi River Bridge, Gramercy, LA The bridge consists of 3,012' main truss span, (1) 628' 3 span continuous two-girder system span, (1) 901' 3 span continuous two-girder system span, (33) 106' & 130' prestressed concrete girder spans. The scope was to perform a routine, in-depth, and fracture critical inspection of the bridges and create an inspection report create an inspection report in InspectX. The inspection was in conformance with AASHTO Manual for Bridge Evaluation, the NBIS, and LADOTD Bridge Inspection Manual. As the Bridge Engineer, Mohammad Tahat is responsible for inspection of bridge deck.
8/23-4/2024	H.009859.5 TO#1: Load Rating of 45 Bridges Load rated of concrete, steel, and railroad flat car bridges. Most of the bridges require refined 3-D finite element modeling and/or special analysis to obtain the proper rating. Mohammad Tahat's responsibilities were to build 3D finite element model using Midas, build BrR models, and develop load rating reports.
8/23-12/23	Job Number 44-17310: Bridge Testing, Statewide, LA The four bridges are posted for a load lesser than Louisiana State Legal Loads. This project consisted of load tests for these bridges. Load tests combined with detailed three-dimensional Finite Element Analysis revealed that these bridges can carry higher loads than those estimated by design codes (MBE and AASHTO and BDEM). Mohammad Tahat's responsibilities and tasks were: - Identifying the bridge members to be tested - Modeling the bridge with detailed three-dimensional Finite Element Analysis (3-D model) using MIDAS software - Analyzing the field data and predicting the behavior of the deficit member. - Prepare the load testing report.

Firm employed by: SDR Engineering Inc 				
Name	Andres (Andy) Rodriguez, ME, PE		Years of relevant experience with this employer	7
Title	Engineer Intern II		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization		ME / 2020 / Civil Engineering (Structural Focus) BS / 2018 / Civil Engineering		
Active registration number / state / expiration date		PE. 0050867 / Louisiana / 3-31-2028 FHWA-NHI Bridge Inspection Training		
Year registered	2025	Discipline	Civil Engineering-Structures	
Contract role(s) / brief description of responsibilities		Pre-professional Staff Engineer		
				
Mr. Rodriguez is a pre-professional engineer with 6 years of experience in bridge engineering and in-depth bridge inspection. His current work consists of load rating, bridge detailing, bridge rehabilitation, bridge inspection, quantity/cost estimate preparation, conducting Non-Destructive Testing, and evaluation of load testing data. Furthermore, he has successfully completed and obtained certification from the FHWA/NHI Safety Inspection of In-Service Bridges course.				
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
7/24–10/24	H.009730.5 TO#3: US-80 Texas Street over Red River Bridge, Shreveport, LA The bridge consists of 884’ main truss span, (6) 103’ approach deck truss spans, (1) 81’ steel girder span, and (35) 24’-51’ reinforced concrete deck girder spans. The scope was to perform a routine, in-depth, and fracture critical inspection of the bridge and create an inspection report in InspectX. The inspection was in conformance with AASHTO Manual for Bridge Evaluation, the NBIS, and LADOTD Bridge Inspection Manual. As an inspector, Andy Rodriguez was responsible for the following tasks: • Assist the in-depth inspection • Coordinated and procured services for the manlift and police details for traffic control Upload and review InspectX inspection report.			
5/24–8/24	H.009730.5 TO#3: I-20 over Mississippi River Bridge, Delta, LA The bridge consists of 1,716’ main truss span, (3) 426’ approach truss spans, (3) 127’ steel girder spans, (3) 170’ two-girder system spans, (1) 360’ composite steel girder span, and (101) 60’ & 80’ prestressed concrete girder spans. The scope was to perform a routine, in-depth, and fracture critical inspection of the bridge and create an inspection report in InspectX. The inspection was in conformance with AASHTO Manual for Bridge Evaluation, the NBIS, and LADOTD Bridge Inspection Manual. As an inspector, Andy Rodriguez was responsible for the following tasks: • Assist the in-depth inspection • Coordinated and procured services for the snoop truck, manlift, and police details for traffic control Upload and review InspectX inspection report			
5/24–8/24	H.009730.5 TO#2: LA 27 Bridge over ICWW, Gibbstown, LA			

	The bridge consists of (1) 750' 3 span continuous two-girder system span, (40) 70' & 95' prestressed concrete girder spans, and (7) 20' concrete slab spans. The scope was to perform a routine, in-depth, and fracture critical inspection of the bridge, create an inspection report and SNBI report in InspectX, perform load rating analysis, and develop repair plans for deficient members. The inspection was in conformance with AASHTO Manual for Bridge Evaluation, the NBIS, and LADOTD Bridge Inspection Manual. As an inspector, Andy Rodriguez was responsible for the following tasks: • Assist the in-depth inspection • Upload and review InspectX inspection report and SNBI report • Conducted and prepared load rating report Assist in developing repair/strengthening plans
8/23–11/23	H.009730.5 TO#1: LA 3213 over Mississippi River Bridge, Gramercy, LA The bridge consists of 3,012' main truss span, (1) 628' 3 span continuous two-girder system span, (1) 901' 3 span continuous two-girder system span, (33) 106' & 130' prestressed concrete girder spans. The scope was to perform a routine, in-depth, and fracture critical inspection of the bridges and create an inspection report in InspectX. The inspection was in conformance with AASHTO Manual for Bridge Evaluation, the NBIS, and LADOTD Bridge Inspection Manual. As an inspector, Andy Rodriguez was responsible for the following tasks: • Assist the in-depth inspection of the fracture critical members of the lower chord and floor system of the truss and steel approach spans and inspection of the concrete approach spans Upload and review InspectX inspection reports
01/23 – 06/23	H.015352.5: US-190 over US 61 Repair, Baton Rouge, LA The scope of work included load testing the sister bridges in conjunction with general rehabilitation and strengthening of deficient members to increase inventory above 1.0 for HL-93 as part of an initiative to handle detoured traffic related to the I-10 widening in Baton Rouge, LA. The sister bridges were built in 1940 and supported by deck girders determined to require posting by conventional analysis. Andy Rodriguez's responsibilities were as follows: • Assisted in the field for the load test of the representative bridge and prepared load test report • Designed the CFRP system to increase flexural capacity to achieve target inventory load rating Designed the replacement elastomeric bearing pads
03/19 – 05/21	H.009859.5: Load Rating of 617 Bridges, Statewide, LA The scope of work was to analyze and load rate 617 existing off-system bridge structures. The load rating was performed using AASHTOWare Bridge Rating Software. The load rating consisted of concrete slab spans, steel spans, concrete girder spans, pile bents, and hammer head piers. Andy Rodriguez's responsibilities were as follows: • Perform load rating of concrete bridges and simply supported and continuous steel bridges • Perform in-depth field inspection & collect field measurements of bridges with missing plans Collect rebar data of concrete structures with missing plans using Ground Penetrating Radar (GPR)

Firm employed by: SDR Engineering Inc					
Name	Parnian Abdi, MS, E.I.		Years of relevant experience with this employer	5	
Title	Engineer Intern II		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization			MS / 2021 / Civil Engineering BS / 2019 / Civil Engineering		
Active registration number / state / expiration date			EI.0035314 / Louisiana / 11-07-2026		
Year registered	2022	Discipline	Civil Engineering, Land Surveying		
Contract role(s) / brief description of responsibilities			Engineer Intern, bridge load rating		
					
Parnian Abdi is an engineer with over 3 years of experience specializing in bridge design and rehabilitation. She has worked on the preparation of engineering plans, cost and quantity estimates, and the development of design solutions for various bridge structures. In addition, she has extensive experience in bridge load rating, inspection, and load testing, with contributions to numerous projects involving structural evaluation, reporting, and condition assessment.					
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
07/25-Present	H.009859.5: Load Rating of 32 Bridges, LA The scope of the project was to evaluate and load rate 32 bridge structures located in the state of Louisiana. The load rating was performed on a variety of bridge structures, including concrete slab spans, steel spans, prestressed concrete girder spans, complex spans, and pile bents. <u>Ms. Abdi’s responsibilities were:</u> • Review of as-built drawings or standard plans of the bridge structure. • Performing load rating of bridges using AASHTOware BrR, LEAP, and Mathcad. • Preparing in-depth reports to present load rating overview, results, and schematics.				
04/25-Present	H.012485.5: Off-System Load Rating of 117 Bridges, LA The scope of the project was to perform load rating evaluations for 117 off-system bridges across Louisiana. The project involved analyzing a wide range of bridge types and preparing documentation in compliance with LADOTD and AASHTO LRFR requirements. Ms. Abdi’s responsibilities were: • Review of as-built drawings or standard plans of the bridge structure. • Performing load rating of bridges using AASHTOware BrR, LEAP, and Mathcad. • Preparing in-depth reports to present load rating overview, results, and schematics.				

07/24-Present	H.010015.5: LA 143 Bayou D'Arbonne Bridge, LA The scope of the project was to provide Stage 3 design services for the rehabilitation of the LA 143 Bridge over Bayou D'Arbonne. The work included preparation of the final bridge design document, LRFR as-designed ratings, special provisions, construction cost estimates, and technical specifications in accordance with LADOTD standards. Ms. Abdi's responsibilities were: • Review of as-built drawings or standard plans of the bridge structure. • Performing load rating of bridges using AASHTOware BrR, LEAP, and Mathcad. • Preparing in-depth reports to present load rating overview, results, and schematics.
05/24-07/25	H. 009859.5: Load Rating of 86 Bridges, Statewide, LA The scope of the project was to evaluate and load rate 45 bridge structures located in the state of Louisiana. The load rating was performed on a variety of bridge structures, including concrete slab spans, Floorbeam-girder steel spans, prestressed concrete girder spans, complex spans, and pile bents. <u>Ms. Abdi's responsibilities were:</u> • Review of as-built drawings or standard plans of the bridge structure. • Performing load rating of bridges using AASHTOware BrR, LEAP, and Mathcad. • Preparing in-depth reports to present load rating overview, results, and schematics
03/24-04/24	Task Order NO. 44-17310- TO # 8 NDT, LA 0039 over Industrial Canal The scope of the project was to perform a load test and rating calibration of Bridge RC#020376, located in Orleans Parish, Louisiana. The bridge, built in 1957, carries Louisiana State Highway 39 over the Industrial Canal and consists of fourteen (14) concrete approach spans with a total length of 280 ft. Ms. Abdi's responsibilities were: • Developing finite element models of the tested elements. • Performing conventional load rating analysis (Task #4119). • Calibrating load ratings against load test results. • Preparing the final load test report.
02/24-05/24	H.009730.5 TO#2: LA 27 Bridge over ICWW, Gibbstown, LA The bridge consists of (1) 750' 3 span continuous two-girder system span, (40) 70' & 95' prestressed concrete girder spans, and (7) 20' concrete slab spans. The scope was to perform a routine, in-depth, and fracture critical inspection of the bridge, create an inspection report and SNBI report in InspectX, perform load rating analysis, and develop repair plans for deficient members. The inspection was in conformance with AASHTO Manual for Bridge Evaluation, the NBIS, and LADOTD Bridge Inspection Manual. As the Lead Engineer, Parnian was responsible for: • Organizing the field inspection notes and photos for InspectX upload

Firm employed by: SDR Engineering Inc 					
Name	Mohammad (Moe) Sabouri, MAsc., EI, EIT		Years of relevant experience with this employer	4	
Title	Engineer Intern II		Years of relevant experience with other employer(s)	1	
Degree(s) / Years / Specialization		MAsc / 2021 / Civil Engineering (Structural) BS / 2016 / Civil Engineering			
Active registration number / state / expiration date		1100027412, 80519 / Florida, Texas / 2026			
Year registered	2024	Discipline	Civil Engineering-Structures		
Contract role(s) / brief description of responsibilities		Engineer Intern, bridge load rating, analysis, testing and inspection			
Mohammad (Moe) Sabouri is an engineer intern with over 2 years of experience in bridge engineering. His current work consists of bridge design/rehabilitation, analysis, load rating evaluation, bridge inspection, load testing, and preparation of quantity/cost estimates. He is also involved in conducting non-destructive testing and evaluation of load testing data. He is experienced in load rating and analysis of concrete bridges, steel bridges, timber bridges, concrete culverts, and metal culverts. He has also assisted in developing and reviewing reports.					
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
03/25–Present	H.012485.5 TO #2: Load Rating of 117 Off System Bridges, Statewide, LA The scope of this project was to evaluate and load rate 117 bridge structures located in the state of Louisiana. The load rating was performed on a variety of bridge structures, including concrete slab spans, steel spans, prestressed concrete girder spans, complex spans, concrete and metal culverts, and pile bents. Moe’s responsibilities were assisting with: • Reviewing as-built drawings and standard plans of the bridge structure. • Performing load rating of bridges using AASHTOware Bridge Rating BrR, LEAP Bridge Concrete, and Mathcad. • Preparing in-depth reports to present load rating overview and results.				
09/24–Present	H.009859.5: Load Rating of 89 Bridges, Statewide, LA The scope of this project was to evaluate and load rate 89 bridge structures located in the state of Louisiana. The load rating was performed on a variety of bridge structures, including concrete slab spans, steel spans, prestressed concrete girder spans, complex spans, concrete and metal culverts, and pile bents. Moe’s responsibilities were assisting with: • Reviewing as-built drawings and standard plans of the bridge structure. • Performing load rating of bridges using AASHTOware Bridge Rating BrR, LEAP Bridge Concrete, and Mathcad. • Preparing in-depth reports to present load rating overview and results.				
07/24–09/24	H.009730.5 TO#3: US-80 Texas Street over Red River Bridge, Shreveport, LA This bridge consists of 884’ main truss span, (6) 103’ approach deck truss spans, (1) 81’ steel girder span, and (35) 24’-51’ reinforced concrete deck girder spans. The scope of this project was to perform a routine, in-depth, and fracture critical inspection of the bridge and create an inspection report in inspectX. The inspection was in conformance with AASHTO Manual for Bridge Evaluation, the NBIS, and LADOTD Bridge Inspection Manual. Moe was responsible for assisting with: • Compiling and reviewing the field inspection notes. • Calculating the quantities.				

	- Organizing the inspection photos and photo log. - Reviewing and uploading the inspection notes and quantities to inspectX.
05/24–07/24	H.009730.5 TO#3: I-20 over Mississippi River Bridge, Vicksburg, MS This bridge consists of 1,716' main truss span, (3) 426' approach truss spans, (3) 127' steel girder spans, (3) 170' two-girder system spans, (1) 360' composite steel girder span, and (101) 60' & 80' prestressed concrete girder spans. The scope was to perform a routine, in-depth, and fracture critical inspection of the bridge and create an inspection report in inspectX. The inspection was in conformance with AASHTO Manual for Bridge Evaluation, the NBIS, and LADOTD Bridge Inspection Manual. Moe was responsible for assisting with: - Compiling and reviewing the field inspection notes. - Calculating the quantities. - Organizing the inspection photos and photo log. - Reviewing and uploading the inspection notes and quantities to inspectX.
12/23–04/24	H.009859.5: Load Rating of 45 Bridges, Statewide, LA The scope of this project was to evaluate and load rate 45 bridge structures located in the state of Louisiana. The load rating was performed on a variety of bridge structures, including concrete slab spans, steel spans, prestressed concrete girder spans, complex spans, and pile bents. Moe's responsibilities were assisting with: - Reviewing as-built drawings and standard plans of the bridge structure. - Performing load rating of bridges using AASHTOWare Bridge Rating BrR, LEAP Bridge Concrete, and Mathcad. - Preparing in-depth reports to present load rating overview and results.
07/23–11/23	H.009730.5 TO#1: LA 3213 over Mississippi River Bridge, Gramercy, LA This bridge consists of 3,012' main truss span, (1) 628' 3 span continuous two-girder system span, (1) 901' 3 span continuous two-girder system span, (33) 106' & 130' prestressed concrete girder spans. The scope of this project was to perform a routine, in-depth, and fracture critical inspection of the bridge and create an inspection report in inspectX. The inspection was in conformance with AASHTO Manual for Bridge Evaluation, the NBIS, and LADOTD Bridge Inspection Manual. Moe's responsibilities were assisting with: - In-depth reviewing of as-built plans. - Preparing inspection drawings. - Calculating the quantities of the structural elements.
01/23–06/23	H.009859.5: Load Rating of 114 Bridges, Statewide, LA The scope of this project was to evaluate and load rate 114 bridge structures located in the state of Louisiana. The load rating consisted of concrete slab spans, steel spans, prestressed concrete girder spans, complex spans, and pile bents. Moe's responsibilities were assisting with: - Reviewing as-built drawings and standard plans of the bridge structure. - Performing load rating of bridges using AASHTOWare Bridge Rating BrR, LEAP Bridge Concrete, and Mathcad. - Preparing in-depth reports to present load rating overview and results.

Firm employed by: SDR Engineering Inc 					
Name	Dasharath K C, EIT		Years of relevant experience with this employer	3	
Title	EIT II		Years of relevant experience with other employer(s)	2	
Degree(s) / Years / Specialization		MS / 2022-2023 / Civil Engineering (Structural Focused) BE / 2016-2021 / Civil Engineering			
Active registration number / state / expiration date		EI.0035873/ Louisiana / 3-31-2027			
Year registered	2024	Discipline	Civil Engineering-Structures		
Contract role(s) / brief description of responsibilities		Bridge Engineer (EIT II) Bridge Design, Rating, Inspection, Planning and Testing			
Dasharath K C is a Bridge Engineer (EIT II) at SDR Engineering Inc., with a strong focus in bridge design, rehabilitation, load rating, inspection and load testing. He has contributed his support to design and rehabilitation efforts, including planning for the rehabilitation and replacement of bridges and working on bridge design projects. Dasharath has also gained experience in load rating, having worked on the load rating steel and concrete bridges, and has supported inspections for major bridges. Additionally, he has been involved in load testing, quality control, and reporting for various bridge projects. Dasharath holds a master's degree in Structural Engineering from the University of Toledo, with project focused on FRP-strengthened steel beams through finite element analysis.					
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
04/2024 – 06/2024	SDR: H.012541: LA 594 Bridge over I-20, Monroe, LA Scope of work is to provide feasibility study services (Stage 0) for rehabilitation/replacement to the bridge at LA 594 over I-20 in Monroe, LA. It includes reviewing existing documents, conducting a site visit, and evaluation of bridge conditions, traffic, and environmental impacts. The scope will include determining rehabilitation or replacement options, such as deck replacement or steel repairs, and providing a construction cost estimate. <u>Dasharath's responsibilities are as follows:</u> • Construction Sequence for Replacing Deck • Drawing Title Sheet, Typical Cross Section, General Plan				
07/2024–12/2024	SDR: Wilson Island Bridge, Lake County, FL Scope of work is to provide design services for Wilson Island Bridge. The design work will be limited to the structural design of both the superstructure and substructure and will not include survey, geotechnical design, or roadway design. <u>Dasharath's responsibilities are as follows:</u> • Reinforcement Quantity Calculation • End Bents Detailing • Assisting in Comp Book				

07/2024-08/2024	SDR: H.010015 LA 143 Bayou D'Arbonne Bridge Scope of work is to provide stage 3 design related services for the preparation of final plans. It includes the preparation of final bridge design document, plan details, LRFR as-designed bridge ratings, special provisions, construction cost estimate and any technical specifications that may be required. <u>Dasharath's responsibilities are as follows:</u> • Span/Deck Detailing, Intermediate and End Bent Detailing • Bent Elevation Calculation
5/2024 - Present	SDR: H.009859.5: Load Rating of 89 Bridges, LA SDR: H.012485.5: Load Rating of 117 Off System Bridges, LA SDR: H.009859.5: Load Rating of 32 Bridges, LA These projects involve load ratings of bridges statewide using the Load and Resistance Factor Rating (LRFR) method. Project Scope includes review of available plans, inspection reports, and other relevant documents to assess the present condition and capacity of the bridges. The load ratings will be carried out based on AASHTO LRFD Bridge Design Specifications, DOTD Bridge Design and Evaluation Manual, and related guidelines. <u>Dasharath's responsibilities are as follows:</u> • Load rating of Concrete Bridges with Steel, Concrete and Timber Piles • Review the load ratings performed by EIT I Engineers • Consistency Check of Models and Submitted Report
04/2024–Present	SDR: Inspection of I-20 bridge over Mississippi River, Vicksburg, MS SDR: US190 Truss Inspection over Mississippi River, Baton Rouge, LA SDR: Contract 5 for Movable Bridges HDR, LA These projects involve inspection and evaluation of the bridges. <u>Dasharath's responsibilities are as follows:</u> • Inspection of the Concrete, Steel and Truss Bridges • Load rating of Steel and Concrete Bridges
8/2023-12/2023	DGL Consulting Engineers, Toledo, Ohio • Performed bridge load rating and assisted in creating bridge inspection reports for Prestressed Concrete Bridges, Slab Bridges, Steel Girder Bridges, and Truss Bridges. • Performed structural analysis & design of walls and buildings and detailing.
9/2021-7/2022	Engineering Helpline Pvt. Ltd, Kathmandu, Nepal • Performed building design, retaining wall design, road layout design, site survey, estimation, and valuation. • Site/Field Engineer for Aautar-Kagune 3 km Road Project: Bridge Construction, Retaining Wall and Drainage Construction, Pile Culverts and Causeway Construction

Firm employed by: Ardaman & Associates, Inc. 				
Name	Megan Bourgeois, P.E.		Years of relevant experience with this employer	20
Title	Principal Engineer/Assistant Branch Manager		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization		B.S. / 2006 / Civil Engineering Traffic Control Supervisor / LA / 6-21-2028 DOTD Flagger / LA / 8-14-2028 Certified NHI Drilled Shaft Inspector		
Active registration number / state / expiration date		0036725 / LA / 03-31-2026		
Year registered	2011	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities		Project Manager		
Ms. Bourgeois has more than 19 years of experience with design and analyses of countless types of foundations including shallow, embankment settlement analysis, deep foundations (pile and drilled shafts), LRFD design, FHWA & GEC design, slope stability (embankment and excavation) and earth retaining structures. She also has extensive experience with geotechnical instrumentation, installation and monitoring, and construction phase testing and laboratory management. She has served as Ardaman's project manager for many LADOTD projects for bridges and roadways throughout Louisiana and completed numerous geotechnical investigations, engineering, and reporting in accordance with LADOTD standards. She has successfully overseen several major contracts for LADOTD and other clients. Ms. Bourgeois also serves as the director of our geotechnical engineering and CMT laboratories in Baton Rouge and has overseen the laboratory testing programs in accordance with LADOTD standards. In this role, she supervises the laboratory managers, oversees testing, provides guidance to laboratory staff, and ensures appropriate protocol is followed and deadlines are met in addition to providing training material and maintaining all laboratory certifications, including AMRL, CCRL, DEQ & USACE.				
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
07/23-Ongoing	SP NO. H.013284 / MRB SOUTH GBRL: LA 1 TO LA 30 CONNECTOR: West Baton Rouge, Iberville, Ascension, and East Baton Rouge Parishes, LA. Project Engineer. The project consists of an Enhanced Planning investigation into S.P. No. H.013284, MRB South GBR: LA 1 to LA 30 Connector, with the objective of constructing a new Mississippi River crossing located between the I-10 and LA 70 River crossings from three proposed alignments. Ms. Bourgeois helped oversee supervision of the field program, development of the laboratory testing program, quality control review, and development of an interactive geotechnical database to compile all the soil borings and ECPT. The preliminary engineering analyses included caisson design, driven piles, drilled shafts, embankments, proposed alignment comparisons, environmental concerns, and testing program recommendations.			
07/21-01/22	SP NO. H.003931 / I-10 CALCASIEU RIVER BRIDGE: Calcasieu Parish, LA. Project Manager. Managed all aspects of this project pertaining to coordination of fieldwork including 37 deep soil borings, 39 ECPTs and 13 geophysical survey transects. A majority of the soil borings were completed from a barge over deep water, some from a marsh buggy over shallow water and thick marsh grass. Ms. Bourgeois also managed and oversaw the laboratory testing program and processing and analyzing of the ECPT and ER data. She also assisted with development of a geotechnical database and preparation and submittal of a geotechnical data report. This project consisted of obtaining geotechnical data under a strict deadline to be used in the design of a replacement of the existing I-10 Calcasieu River Bridge with a new structure and improvements to various other interchanges.			

04/21-Ongoing	SP NOS. 700-29-0112, 700-29-0130, H.012565, H.012891, H.014251, H.014252, H.014253, H.014254, H.014256, H.014257 / RURAL BRIDGE INITIATIVE PHASE II: West Feliciana, East Feliciana, Livingston, St. Bernard Parishes, LA. Project Engineer. This project consists of the replacement of multiple small two-lane bridges throughout rural areas of Southeast Louisiana which generally ranged in length from 100 to 400 feet, over various size rivers and creeks. Ms. Bourgeois leads technical reviews pertaining to selection of design reaches, geotechnical design of pile foundations, drivability, slope stability, settlement analyses, construction testing program recommendations, and report preparation in accordance with LADOTD guidelines.
02/20-Ongoing	SP NO. H.004791 / DESIGN SUPPORT SERVICES LA 23, BELLE CHASSE BRIDGE & TUNNEL: Plaquemine Parish, LA. Project Engineer/Laboratory Director. Ardaman's scope consists of review and acceptance of all geotechnical services including technical design reports, field documentation, drawings, and RFI's for the P3 Project consisting of replacing the Belle Chasse bridge and tunnel. In addition, Ardaman performs acceptance verification sampling and testing during the construction for soils and concrete. Ms. Bourgeois assisted in review and acceptance of geotechnical services as well as quality control and review of all acceptance verification sampling and testing during construction.
10/15-Ongoing	SP NO. H.013579 / PECUE LANE I-10 INTERCHANGE: East Baton Rouge Parish, LA. Project Manager. This project consists of twin bridges with MSE wall abutments for both bridges crossing Interstate I-10, a bridge crossing Ward's Creek, and on/off-ramps in south Baton Rouge. Ms. Bourgeois managed all aspects of the project that included field investigations, laboratory testing, and engineering design. Ms. Bourgeois performed analyses including settlement estimates with recommendations for monitoring, driven pile design including down drag considerations, MSE Wall design, slope stability and pavement section recommendations; all completed according to DOTD standards. She is currently assisting with the field construction monitoring.
10/09-Ongoing	SP NO. H.004646.5 / I-20 MISSISSIPPI RIVER BRIDGE REVIEW: Vicksburg, MS. Project Manager. Ms. Bourgeois manages this multi-million-dollar, highly technical project consisting of investigating movement of the I-20 Bridge in Vicksburg, MS. She managed a highly technical team including academia, experts, including internationally recognized geotechnical engineers, geohydrologists, instrumentation specialists, and 3-D geotechnical modeling experts. She managed and personally oversaw a comprehensive laboratory testing program and was involved in refining the geotechnical site characterization for the bank/bluff where there was evidence of shifting creating movement in the bridge structure. The specialized testing, she personally performed or managed included x-ray diffraction, x-ray scanning to identify existing shearing planes and stress-reversal direct shear tests to determine true residual angles of critical strata. She was instrumental in designing the geotechnical instrumentation program for this project including vibrating wire piezometers, Casagrande type piezometers, SAA inclinometers, and traditional inclinometers. In addition, Ms. Bourgeois performed seepage and drawdown analyses, slope stability analyses, evaluation of remedial measures including design and evaluation of large foundation structures and developed technically feasible solutions to mitigate ground movement. She co-authored the geotechnical analysis and design report. She is currently overseeing the comprehensive monitoring program.
09/22-Ongoing	EVANGELINE ROAD & CN RAILROAD CULVERT: St. Charles Parish, LA. Project Engineer. Ardaman completed subsurface exploration and geotechnical engineering evaluation. The project consists of the installation of two reinforced concrete box culverts (RCBCs) on the north and south sides of the CN Railroad as it crosses over Evangeline Road near Montz, Louisiana in St. Charles Parish. Ardaman performed the geotechnical fieldwork and engineering evaluation including recommendations for site preparation, shoring and bedding recommendations, and pavement design in a final report.

Firm employed by: Ardaman & Associates, Inc. 				
Name	Robert Jewell, P.E.		Years of relevant experience with this employer	19
Title	Project Engineer / Branch Manager		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			B.S. / 2009 / Civil Engineering	
Active registration number / state / expiration date			38579 / LA / 09-30-2026 Traffic Control Supervisor / LA / 08-23-2028 DOTD Flagger / LA / 07-31-2029	
Year registered	2013	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities			Project Engineer	
Mr. Jewell serves as the manager of our Baton Rouge office and has over 15 years of experience with design and analyses of countless types of foundations including shallow, embankment settlement analysis, deep foundations (pile and drilled shafts), LRFD design, FHWA & GEC design, slope stability (embankment and excavation) and earth retaining structures. He has managed and coordinated many geotechnical field investigations, including shallow and deep borings, CPT soundings, and performed analyses and prepares design recommendation reports for LADOTD projects. Mr. Jewell has extensive experience in construction phase testing and oversight including dynamic and static testing, pile integrity testing, cross hole sonic logging, settlement monitoring, and geotechnical instrumentation. In particular, he has over 15 years of experience performing, analyzing, and reporting for PDA testing.				
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
07/23-Ongoing	SP NO. H.013284 / MRB SOUTH GBRL: LA 1 TO LA 30 CONNECTOR: West Baton Rouge, Iberville, Ascension, and East Baton Rouge Parishes, LA. Project Manager. The project consists of an Enhanced Planning investigation into S.P. No. H.013284, MRB South GBR: LA 1 to LA 30 Connector, with the objective of constructing a new Mississippi River crossing located between the I-10 and LA 70 River crossings from three proposed alignments. Mr. Jewell managed supervision of the field program, development of the laboratory testing program, quality control review, and development of an interactive geotechnical database to compile all the soil borings and ECPT. He helped oversee the preliminary engineering analyses which included caisson design, driven piles, drilled shafts, embankments, proposed alignment comparisons, environmental concerns, and testing program recommendations. A data report and preliminary geotechnical assessment report were submitted.			
07/21-Ongoing	SP NO. H.004100.5 / I-10: LA 415 TO ESSEN LANE ON I-10 & I-12 (CMAR): Baton Rouge Parish, LA. Project Manager. The project consists of a Construction Management at Risk (CMAR) project which includes widening of the east and westbound lanes, elevated structures, interchanges, and ramps along I-10 from LA 415 in West Baton Rouge Parish to Essen Lane on I-10 and I-12 in East Baton Rouge Parish spanning approximately 2.5 miles. Mr. Jewell currently oversee all aspects of engineering analyses pertaining to selection of design reaches, geotechnical design of deep foundations, earth retaining structures, slope stability, soil-structure interaction with existing structures and load testing recommendations. Mr. Jewell helped develop the Geotechnical Data reports, memorandums, and Design reports for this project.			
09/22-Ongoing	EVANGELINE ROAD & CN RAILROAD CULVERT: St. Charles Parish, LA. Project Manager. Ardaman completed subsurface exploration and geotechnical engineering evaluation. The project consists of the installation of two reinforced concrete box culverts (RCBCs) on the north and south sides of the CN Railroad as it crosses over Evangeline Road near Montz, Louisiana			

	in St. Charles Parish. Ardaman performed the geotechnical fieldwork and engineering evaluation including recommendations for site preparation, shoring and bedding recommendations, and pavement design in a final report.
07/23-Ongoing	SP NO. H.012030 / US 371: KCS RAILROAD OVERPASSES HBI: Webster Parish, LA. Project Manager. The project consists of construction of three bridges for US 371 KC Railroad overpasses that replaced two parallel bridges and one standalone bridge. Ardaman performed the geotechnical investigation and engineering analysis for drilled shafts and made advanced test shaft recommendations.
04/21-Ongoing	SP NOs. 700-29-0112, 700-29-0130, H.012565, H.012891, H.014251, H.014252, H.014253, H.014254, H.014256, H.014257 / RURAL BRIDGE INITIATIVE PHASE II: West Feliciana, East Feliciana, Livingston, St. Bernard Parishes, LA. Project Manager. The project consists of the replacement of multiple small two-lane bridges throughout rural areas of Southeast Louisiana which generally ranged in length from 100 to 400 feet, mainly over small rivers, and creeks. Mr. Jewell oversees all aspects of engineering analyses pertaining to selection of design reaches, geotechnical design of pile foundations, drivability, slope stability, settlement analyses and construction testing program recommendations.
10/15-Ongoing	SP NO. H.013579 / PECUE LANE I-10 INTERCHANGE: East Baton Rouge Parish, LA. Project Engineer. This project consists of twin bridges with MSE wall abutments for both bridges crossing Interstate I-10, a bridge crossing Ward's Creek, and on/off-ramps in south Baton Rouge. Mr. Jewell helped perform analyses including settlement estimates with recommendations for monitoring, driven pile and drilled shaft design including down drag considerations, MSE Wall design, slope stability and pavement section recommendations; all completed according to DOTD standards. Mr. Jewell is currently overseeing the construction phase which includes PDA monitoring, static load testing, and settlement monitoring.
07/15-Ongoing	SP NO. H.004273.5 / I-49 CONNECTOR (LAFAYETTE REGIONAL AIRPORT TO I-10/I-49/US 167 INTERCHANGE): Lafayette Parish, LA. Project Manager. The project consists of construction of 5 miles of freeway consisting of a 3.5-mile elevated structure from I-10 to the Airport in Lafayette, LA. Mr. Jewell oversaw the completion of the Phase I geotechnical investigation, which included 116 deep and shallow soil boring, and 15 CPT soundings, and laboratory testing program per LADOTD guidelines. Mr. Jewell oversaw the completion of the Geotechnical Data Report and assisted with technical reviews pertaining to selection of design reaches, geotechnical design of pile and drilled shaft foundations, drivability, slope stability, earth retaining structures, settlement analyses and construction testing program recommendations, including an advanced test pile program. He is currently overseeing development of the Phase 2 field and laboratory program for each segment.
04/14-Ongoing	SP NO. H.004435 / I-12 TO BUSH SEGMENT 2, LA 3241 (LA 36-LA435): St. Tammany Parish, LA. Project Manager. Mr. Jewell oversaw and coordinated the geotechnical investigation which included drilling 32 deep soil borings, 10 culvert borings, and 88 shallow roadway borings, sampling, and laboratory testing along the alignment which includes two bridges: LA 435 over Bayou Lacombe Tributary and LA 36 over Bayou Lacombe Tributary 2. He assisted in developing the geotechnical analyses and design recommendation report which included pile foundations for the bridge structures and shallow foundation design for the culverts. Mr. Jewell oversaw the construction phase which included PDA testing and settlement monitoring.

Firm employed by: Ardaman & Associates, Inc.					
Name	Mark Woodward, P.E.		Years of relevant experience with this employer	8	
Title	Principle Engineer		Years of relevant experience with other employer(s)	36	
Degree(s) / Years / Specialization			M.S. / 2019 / Risk Management M.S. / 1986 / Civil Engineering B.S. / 1982 / Civil Engineering		
Active registration number / state / expiration date			24206 / LA / 9-30-2027		
Year registered	1991	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Principal Engineer		
Mr. Woodward served as a geotechnical engineer for 36 years in the geotechnical branch of USACE New Orleans District, retiring as the Deputy Chief of the Geotechnical Branch and Dam and Levee Safety Program Manager. He was responsible for managing all departments in the branch including engineering, drilling, soils laboratory, dredge material testing, concrete testing, and administration. Mr. Woodward has considerable experience designing and managing various types of projects on the Mississippi River, Atchafalaya Basin and Storm Surge Levees in Southeast Louisiana, Mississippi and Texas, as well as mitigation and coastal projects in Louisiana. These projects included design of major foundation elements for dams, earthen levees, hydraulic structures, floodwalls, revetments, channel stabilization, bank degrading, ground improvement, deep excavations, relief wells, wick drains, dewatering systems, seepage and stability berms, preloads, reinforced levees and marsh creation for mitigation, coastal restoration and protection and beneficial use of dredge material in marsh and coastal environments with field investigations requiring use of specialized marine and marsh drilling equipment. Since 2018, Mr. Woodward has served as Principal Geotechnical Engineer of Ardaman for Louisiana, Mississippi, Alabama, Arkansas, and Texas. Mr. Woodward provides oversight and review of design major foundation elements for transportation, industrial, commercial, and municipal projects.					
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
04/21-01/2025	SP NO. H.013987 / RURAL BRIDGES PHASE I: Claiborne Parish, LA. Principal Engineer. The Rural Bridges project initiative consists of replacing many older bridges throughout the State of Louisiana. Mr. Woodward provided review of the geotechnical design including pile foundations for 3 bridges.				
01/19-12/23	SP NO. H.008226 / CHENIERE SPILLWAY & BRIDGE REPLACEMENT: Ouachita Parish, LA. Principal Engineer. Mr. Woodward served as the Principal Engineer for this project which included the replacement of the current damaged spillway and bridge structure in Ouachita Parish, Louisiana.				
10/18-11/21	SP NO H.003370 / I-220 I-20 INTERCHANGE IMPROVEMENT AND BARKSDALE AIRFORCE BASE ACCESS ROAD: Bossier Parish, LA. Principal Engineer. This Design Build project consisted of direct access to Interstate I-20 from the Barksdale Air Force Base (BAFB) and an interchange and access road from Interstate 20 in Shreveport, Louisiana. Mr. Woodward provided quality assurance oversight for this project, reviewing the work during the design and construction phase.				
05/18-08/19	SP NO. H.011152.5 / I-12 WIDENING (US 190 to LA 59): St. Tammany Parish, LA. Principal Engineer. Mr. Woodward provided technical oversight for this project which included the widening of I-12 in St. Tammany Parish. Ardaman conducted a geotechnical investigation which included 23 deep soil borings, sampling, and laboratory testing along the 3-mile alignment				

	between US 190 and LA 59 for lane widening which included four bridges structures. Mr. Woodward provided oversight to perform additional soil borings, lab testing and engineering analyses for a retaining wall for one of the bridge abutments
07/23-Ongoing	SP NO. H.012030 / US 371: KCS RAILROAD OVERPASSES HBI: Webster Parish, LA. Principal Engineer. The project consists of construction of three bridges for US 371 KC Railroad overpasses that replaced two parallel bridges and one standalone bridge. Ardaman performed the geotechnical investigation and engineering analysis for drilled shafts and made advanced test shaft recommendations.
05/18-08/19	SP NO. H.011152.5 / I-12 WIDENING (US 190 to LA 59): St. Tammany Parish, LA. Principal Engineer. Mr. Woodward provided technical oversight for this project which included the widening of I-12 in St. Tammany Parish. Ardaman conducted a geotechnical investigation which included 23 deep soil borings, sampling, and laboratory testing along the 3-mile alignment between US 190 and LA 59 for lane widening which included four bridges structures. Mr. Woodward provided oversight to perform additional soil borings, lab testing and engineering analyses for a retaining wall for one of the bridge abutments
05/18-09/19	SP NO. H.001344 / US 190: LA 437 TO USE 190 BUS (PH 1): St. Tammany Parish, LA. Principal Engineer. Mr. Woodward provided technical oversight for this project which includes the widening of US 190 to a four-lane boulevard between US 437 and US 190.
05/18-07/18	IMTT ACCESS ROAD PAVEMENT, AVONDALE: Jefferson Parish, LA. Principal Engineer. Served as senior engineer for 2,200-foot-long x 50 -foot wide rigid and flexible roadway design for AASHTO loading per LADOTD guidelines, including subsurface exploration and testing, California Bearing Ratio, subbase material and thickness recommendations, wearing course thicknesses, and construction recommendations.
06/16-07/16	SOUTHEAST LOUISIANA URBAN FLOOD CONTROL, LOUISIANA AVENUE PAVING: Orleans Parish, LA. Chief of Structural Design. Served as decision maker as Chief of Structural Design, USACE New Orleans, for asphalt or concrete paving, looking at factors such as construction cost, durability, maintenance cycles and costs, constructability, construction duration, etc.
2014-2018	DAM AND LEVEE SAFETY PROGRAM, USACE NEW ORLEANS DISTRICT: LA. Dam and Levee Safety Program Manager. Mr. Woodward served as the USACE New Orleans District Levee Safety Program Manager for over four years, responsible for Levee Evaluation Reports for Levee Certifications and the National Flood Insurance Program, Levee Inspection Reports on over 1300 miles of levee on an annual basis, Risk Assessments and Communication for all levees in the District's jurisdiction. Responsible for final Section 408 permitting approval to ensure that construction activities do not increase risk or diminish function of levees and do not cause harm to the public.
2006	HOMEPLACE LEVEE WITH GROUND IMPROVEMENT, P24: Plaquemines Parish, LA. Lead Geotechnical Engineer. In the aftermath of Hurricane Katrina, Mr. Woodward was assigned to USACE Task Force Guardian as Geotechnical Engineer for Plaquemines Parish to restore levee damage to pre-Katrina conditions. The Homeplace Floodwall had translated due to loading and had to be removed. In order to replace the risk reduction system with an earthen levee, the foundation had to be improved. Using knowledge gained from full scale test section Mr. Woodward had coordinated pre-Katrina for Deep Mixing. Mr. Woodward designed ground improvement and reviewed/ approved all construction submittals and oversaw construction.

Firm employed by: Ardaman & Associates, Inc.					
Name	Jarmon King, P.E.		Years of relevant experience with this employer	7	
Title	Project Engineer		Years of relevant experience with other employer(s)	1	
Degree(s) / Years / Specialization			B.S. / 2019 / Civil Engineering Traffic Control Supervisor / LA / 11-08-2027 DOTD Flagger / LA / 05-29-2028		
Active registration number / state / expiration date			49179 / LA / 03-31-2027		
Year registered	2024	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Project Engineer		
Jarmon King serves as a project engineer of Ardaman in the Baton Rouge office with over 7 years of experience. Mr. King is involved with overseeing and conducting geotechnical investigations. Mr. King also prepares soil boring logs; processes and analyzes Cone Penetration Test (CPT) sounding design and analyses of multiple types of foundations including shallow, embankment settlement analysis, deep foundations (pile and drilled shafts), LRFD design, FHWA & GEC design, slope stability (embankment and excavation) and earth retaining structures. Mr. King has experience in overseeing and performing Pile Driving Analyzer (PDA) testing during the construction phase of projects.					
Experience dates (mm/yy–mm/yy)		Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
07/23-Ongoing		SP NO. H.013284 / MRB SOUTH GBRL: LA 1 TO LA 30 CONNECTOR: West Baton Rouge, Iberville, Ascension, and East Baton Rouge Parishes, LA. Project Engineer. The project consists of an Enhanced Planning investigation into S.P. No. H.013284, MRB South GBR: LA 1 to LA 30 Connector, with the objective of constructing a new Mississippi River crossing located between the I-10 and LA 70 River crossings from three proposed alignments. Mr. King helped oversee the field program, development of the laboratory testing program, development of an interactive geotechnical database to compile all the soil borings and ECPT. He helped perform the preliminary engineering analyses included caisson design, driven piles, drilled shafts, embankments, proposed alignment comparisons, environmental concerns, and testing program recommendations. Mr. King assisted in preparation of the Data and Design reports for this project.			
07/21-Ongoing		SP NO. H.004100.5 / I-10: LA 415 TO ESSEN LANE ON I-10 & I-12 (CMAR): Baton Rouge Parish, LA. Project Engineer. The project consists of a Construction Management at Risk (CMAR) project which includes widening of the east and westbound lanes, elevated structures, interchanges, and ramps along I-10 from LA 415 in West Baton Rouge Parish to Essen Lane on I-10 and I-12 in East Baton Rouge Parish spanning approximately 2.5 miles. Mr. King co-manages and oversees the engineering analyses pertaining to selection of design reaches, geotechnical design of deep foundations, earth retaining structures, slope stability, soil-structure interaction with existing structures and load testing recommendations. Mr. King helped develop the Geotechnical Data reports, memorandums, and Design reports for this project.			
04/21-Ongoing		SP NOS. 700-29-0112, 700-29-0130, H.012565, H.012891, H.014251, H.014252, H.014253, H.014254, H.014256, H.014257 / RURAL BRIDGE INITIATIVE PHASE II: West Feliciana, East Feliciana, Livingston, St. Bernard Parishes, LA. Assistant Project Engineer. This project consists of the replacement of multiple small two-lane bridges throughout rural areas of Southeast Louisiana which generally ranged in length from 100 to 400 feet, mainly over small rivers and creeks. Mr. King assisted in engineering design pertaining to selection of design reaches, geotechnical design of pile foundations, drivability, slope stability,			

	settlement analyses, construction testing program recommendations, and report preparation in accordance with LADOTD guidelines.
07/23-Ongoing	SP NO. H.012030 / US 371: KCS RAILROAD OVERPASSES HBI: Webster Parish, LA. Assistant Project Engineer. The project consists of construction of three bridges for US 371 KC Railroad overpasses that replaced two parallel bridges and one standalone bridge. Ardaman performed the geotechnical investigation and engineering analysis for drilled shafts and made advanced test shaft recommendations.
07/21-01/22	SP NO. H.003931 / I-10 CALCASIEU RIVER BRIDGE: Calcasieu Parish, LA. Assistant Project Engineer. Assisted with all aspects of this project pertaining to coordination of fieldwork including 37 deep soil borings, 39 ECPTs and 13 electrical resistivity (ER) geophysical survey transects. Most of the soil borings were completed from a barge, some over a considerable amount of water. Some soil borings were completed from a marsh buggy over shallow water and thick marsh grass. He also assisted with the laboratory testing program, processing and analyzing of the ECPT and ER data, development of a geotechnical database and preparation and submittal of a geotechnical data report. This project consisted of obtaining preliminary geotechnical data under an extremely strict deadline to be used in the design phase of a project that will consist of replacing the existing I-10 Calcasieu River Bridge with a new structure and improvements to various other interchanges.
06/20-11/22	SP. NO. H.002825 / NICHOLSON DRIVE (LA HWY 30) SEGMENT 1: East Baton Rouge Parish, LA. Assistant Project Engineer. This project consisted of the reconstruction and widening of a section of Nicholson Drive between the intersections of Brightside Lane and Burbank Drive for the MOVEBR Program. Thirteen shallow soil borings and two deep soil borings were drilled at the subject site and associated laboratory testing was performed. Mr. King oversaw the field investigation and engineering analyses which included pavement and culvert crossing design recommendations in accordance with LADOTD specifications.
10/18-06/21	SP NO. H.000263 / CHEF MENTEUR PASS BRIDGE & APPROACH: Orleans Parish, LA. Assistant Project Engineer. Helped produced soil boring logs and CPT soundings in LADOTD format. Assisted with development of the data report.
10/18-11/21	SP NO. H.003370 / I-220 / I-20 INTERCHANGE IMPROVEMENT AND BARKSDALE AIR FORCE BASE ACCESS ROAD: Bossier Parish, LA. Assistant Project Engineer. This was a Design Build project which provides direct access to Interstate I-20 from the Barksdale Air Force Base (BAFB) and constructing an interchange and access road from Interstate 20 in Bossier City, Louisiana. Mr. King assisted with the construction monitoring aspect of the project which included PDA testing and CAPWAP analyses.
03/25-Ongoing	SP NOs. H.016313.5, H.016314.5, H.016315.5, H.016316.5, H.016317.5, H.016318.5, H.016319.5, H.016320.5, H.016325.5 / CULVERT REPLACEMENTS: Rapides, Richland, Vernon, Winn, Evangeline, Jackson, St. Landry Parishes, LA: Project Engineer. The project consisted of geotechnical field investigations throughout Louisiana consisting of ten soil borings to depths ranging from 100 to 120 feet, associated laboratory testing, and reporting for new box culvert structures. Mr. King helped produced soil boring logs and CPT soundings in LADOTD format and developed the data reports.
09/22-Ongoing	EVANGELINE ROAD & CN RAILROAD CULVERT: St. Charles Parish, LA. Project Manager. Ardaman completed subsurface exploration and geotechnical engineering evaluation. The project consists of the installation of two reinforced concrete box culverts (RCBCs) on the north and south sides of the CN Railroad as it crosses over Evangeline Road near Montz, Louisiana in St. Charles Parish. Ardaman performed the geotechnical fieldwork and engineering evaluation including recommendations for site preparation, shoring and bedding recommendations, and pavement design in a final report.

Firm employed by: Ardaman & Associates, Inc.			
Name	Jessica N. Litt		Years of relevant experience with this employer
Title	Laboratory Manager		Years of relevant experience with other employer(s)
Degree(s) / Years / Specialization		B.S. / 2010 / Biology	
Active registration number / state / expiration date		NICET / Generalist, Laboratory No. 141243 / 10-01-2027	
Year registered	N/A	Discipline	N/A
Contract role(s) / brief description of responsibilities		Laboratory Manager	
Ms. Litt serves as Laboratory Manager of Ardaman's Baton Rouge laboratory which is under the direction of a Registered Professional Engineer. She supervises and manages operations of our AMRL Certified, DEQ Accredited, and USACE-validated laboratory and performs and oversees laboratory testing assignments, organizes, and schedules testing, trains and develops technicians, and supervises five laboratory technicians. Ms. Litt is experienced conducting soil mechanics laboratory testing in accordance with appropriate AASHTO and LADOTD testing protocol, which includes Soil Classification, Atterberg Limits, Grain Size Analysis, Gradation Testing, Organic Content, Hydrometer Analysis, Moisture Content, Consolidation Testing, Hydraulic Conductivity, pH, Resistivity, Strength Testing (Unconfined, Unconsolidated-Undrained Triaxial, Consolidated-Undrained Triaxial), Direct Shear, Specific Gravity, and Permeability of Granular Soils.			
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).		
03/25-Ongoing	SP NOs. H.016313.5, H.016314.5, H.016315.5, H.016316.5, H.016317.5, H.016318.5, H.016319.5, H.016320.5, H.016325.5 / CULVERT REPLACEMENTS: Evangeline, Jackson, Rapides, Richland, St. Landry, Vernon, and Winn Parishes, LA. Laboratory Manager. Oversaw the completion of a comprehensive laboratory testing program for 100 deep soil borings that included Atterberg Limits, Moisture Content, Visual Classification, Fines Content, Gradation Analysis, Organic Content, Particle Size Analysis, Hydrometer, Unit Weight of Undisturbed Samples, and UU Strength Tests in accordance with LADOTD guidelines. Ms. Litt entered the laboratory test results into gINT in order to produce the LADOTD soil boring logs.		
08/24-Ongoing	SP NOs. H.015568.5, H.015569 / LA 44 ROUNDABOUTS & WIDENING: Ascension Parish, LA. Laboratory Manager. Oversaw the completion of a comprehensive laboratory testing program for 10 deep and 14 shallow soil borings that included Atterberg Limits, Moisture Content, Visual Classification, Fines Content, Gradation Analysis, Organic Content, Particle Size Analysis (Hydrometer), Unit Weight of Undisturbed Samples, and UU Strength Tests in accordance with LADOTD guidelines. Ms. Litt entered the laboratory test results into gINT to produce the LADOTD soil boring logs.		
07/23-Ongoing	SP NO. H.013284 / MRB SOUTH GBR LA 1 TO LA 30 CONNECTOR: West Baton Rouge, Iberville, Ascension, and East Baton Rouge Parishes, LA. Laboratory Manager. Oversaw the completion of a comprehensive laboratory testing program for 18 deep soil borings that included Atterberg Limits, Moisture Content, Visual Classification, Fines Content, Gradation Analysis, Organic Content, Particle Size Analysis (Hydrometer), Unit Weight of Undisturbed Samples, and UU Strength Tests in accordance with LADOTD guidelines. Ms. Litt reviewed the consolidation test results and entered the laboratory test results into gINT in order to produce the LADOTD soil boring logs.		
07/23-Ongoing	SP NOs. H.015489, H.015490, H.015491, H.015492 / IJA: OFF-SYSTEM BRIDGES: Allen, Beauregard, and Calcasieu Parishes, LA. Laboratory Manager. Oversaw the completion of a comprehensive laboratory testing program for 10 deep soil borings that included Atterberg Limits, Moisture Content, Visual Classification, Fines Content, Gradation Analysis, Particle Size		

	Analysis (Hydrometer), Unit Weight of Undisturbed Samples, and UU Strength Tests in accordance with LADOTD guidelines. Ms. Litt entered the laboratory test results into gINT to produce the LADOTD soil boring logs.
07/23-Ongoing	SP NO. H.012030 / US 371: KCS RAILROAD OVERPASSES HBI: Webster Parish, LA. Laboratory Manager. The project consists of construction of three bridges for US 371 KC Railroad overpasses that replaced two parallel bridges and one standalone bridge. Ardaman performed the geotechnical investigation and engineering analysis for drilled shafts and made advanced test shaft recommendations.
10/18-06/21	SP NO. H.000263.5-1 / CHEF MENTEUR PASS BRIDGE AND APPROACH: Orleans Parish, LA. Laboratory Technician. Assisted with completion of a comprehensive laboratory testing program that included Atterberg Limits, Moisture Content, Visual Classification, Fines Content, Gradation Analysis, Triaxial Permeability (constant head), Conventional Incremental Consolidation, Organic Content, Particle Size Analysis (Hydrometer), Unit Weight of Undisturbed Samples, and UU Strength Tests.
09/22-Ongoing	EVANGELINE ROAD & CN RAILROAD CULVERT: St. Charles Parish, LA. Laboratory Technician. Ardaman completed subsurface exploration and geotechnical engineering evaluation. The project consists of the installation of two reinforced concrete box culverts (RCBCs) on the north and south sides of the CN Railroad as it crosses over Evangeline Road near Montz, Louisiana in St. Charles Parish. Ardaman performed the geotechnical fieldwork and engineering evaluation including recommendations for site preparation, shoring and bedding recommendations, and pavement design in a final report.
11/15-01/21	SP NOS. 700-29-0112, 700-29-0130, H.012565, H.012891, H.014251, H.014252, H.014253, H.014254, H.014256, H.014257 / MACARTHUR INTERCHANGE COMPLETION PHASE 2, ROUTE US 90-Z: Jefferson Parish, LA. Laboratory Technician Assisted with completion of a comprehensive laboratory testing program that included Atterberg Limits, Moisture Content and Visual Classification, Fines Content, Sieve Analysis, Triaxial Permeability (constant head), Conventional Incremental Consolidation, Particle Size Analysis (Hydrometer), Unit Weight of Undisturbed Samples, and UU Strength Tests.
04/14-03/22	SP NO. H.004435 / I-12 TO BUSH SEGMENT 2, LA 3241: St. Tammany Parish, LA. Laboratory Technician. Assisted with completion of a comprehensive laboratory testing program that included Atterberg Limits, Moisture Content, Visual Classification, Fines Content, Gradation Analysis, Triaxial Permeability (constant head), Conventional Incremental Consolidation, Organic Content, Particle Size Analysis (Hydrometer), Unit Weight of Undisturbed Samples, and UU Strength Tests.
04/14-05/18	SP NO. H.004113 / I-12 TO BUSH SEGMENT 3, LA HWY. 3241 (LA 435 TO LA 40 / 41): St. Tammany Parish, LA. Laboratory Technician Assisted with completion of a comprehensive laboratory testing program that included Atterberg Limits, Moisture Content and Visual Classification, Fines Content, Sieve Analysis, Triaxial Permeability (constant head), Conventional Incremental Consolidation, Unit Weight, Particle Size Analysis (Hydrometer), and UU Strength Tests.
10/09-Ongoing	SP NO. H.004646.5 / I-20 MISSISSIPPI RIVER BRIDGE REVIEW: Vicksburg, MS. Laboratory Manager. Assisted with completion of a comprehensive laboratory testing program that included Atterberg Limits, Moisture Content, Visual Classification, Fines Content, Gradation Analysis, Triaxial Permeability (constant head), Conventional Incremental Consolidation, Organic Content, Particle Size Analysis (Hydrometer), Unit Weight of Undisturbed Samples, and UU Strength Tests.

Firm employed by: Ardaman & Associates, Inc. 				
Name	Casey Floyd		Years of relevant experience with this employer	5
Title	Drilling Supervisor		Years of relevant experience with other employer(s)	30
Degree(s) / Years / Specialization			High School Diploma	
Active registration number / state / expiration date			Traffic Control Technician / LA / 9-5-2027 Traffic Control Supervisor / LA / 9-6-2027 DOTD Flagger / LA / 6-04-2028 Louisiana Water Well Driller's License #WWC-212, 6-30-2026	
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities			Drilling Supervisor	
Mr. Floyd has over 30 years of experience drilling in the Louisiana Gulf Coast Region including performing soil borings (on land and over water), CPT soundings, monitor well installation and abandonment, and installation of geotechnical monitoring instrumentation. Mr. Floyd has planned and supervised many LADOTD geotechnical investigation projects. He has arranged right of entry, utility locations, site clearing, arranging for police assistance (if needed) and traffic control/crew safety, and coordinating between engineering staff and drill crew. He has also successfully completed a multitude of LADOTD projects consisting of shallow borings and deep soil borings to depths of approximately 300 feet.				
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).			
03/25-Ongoing	SP NOs. H.016313.5, H.016314.5, H.016315.5, H.016316.5, H.016317.5, H.016318.5, H.016319.5, H.016320.5, H.016325.5 / CULVERT REPLACEMENTS: Evangeline, Jackson, Rapides, Richland, St. Landry, Vernon, and Winn Parishes, LA. Drilling Supervisor. The project consisted of geotechnical field investigations throughout Louisiana consisting of ten soil borings to depths ranging from 100 to 120 feet. Mr. Floyd oversaw the field investigation program consisting of 10 deep soil borings in accordance with LADOTD guidelines. He performed site reconnaissance at each location and coordinated the access along with traffic control.			
08/24-Ongoing	SP NOs. H.015568.5, H.015569 / LA 44 ROUNDABOUTS & WIDENING: Ascension Parish, LA. Drilling Supervisor. Mr. Floyd oversaw the field investigation program consisting of 10 deep and 14 shallow soil borings in accordance with LADOTD guidelines. He performed site reconnaissance, coordinated the access along with traffic control and pavement coring.			
07/23-Ongoing	SP NOs. H.015489, H.015490, H.015491, H.015492 / IJA: OFF-SYSTEM BRIDGES: Allen, Beauregard, and Calcasieu Parishes, LA. Drilling Supervisor. Mr. Floyd oversaw the field investigation program consisting of 10 deep soil borings in accordance with LADOTD guidelines. He performed site reconnaissance, coordinated the access along with traffic control and pavement coring.			
03/22-01/25	SP NO. H.002244.5 / BOUDREAUX CANAL BRIDGE REPLACEMENT: Terrebonne Parish, LA. Drilling Supervisor. The project consisted of replacement of the existing LA 56: Boudreaux Canal Bridge with a new bridge just west of the center line of the existing bridge. Mr. Floyd oversaw the field investigation program consisting of 8 deep soil borings and 4 CPT soundings in accordance with LADOTD guidelines. He performed site reconnaissance, coordinated the access along with traffic control and pavement coring. Mr. Floyd oversaw the completion of one of the soil borings that was performed on a barge.			

07/23-Ongoing	SP NO. H.012030 / US 371: KCS RAILROAD OVERPASSES HBI: Webster Parish, LA. Drilling Supervisor. The project consists of construction of three bridges for US 371 KC Railroad overpasses that replaced two parallel bridges and one standalone bridge. Ardaman performed the geotechnical investigation and engineering analysis for drilled shafts and made advanced test shaft recommendations.
07/21-01/22	SP NO. H.003931 / I-10 CALCASIEU RIVER BRIDGE: Calcasieu Parish, LA. Drilling Crew Chief. Mr. Floyd helped manage and oversee all aspects of an extensive field investigations program which included 37 deep soil borings and 39 CPT soundings in accordance with LADOTD guidelines. Most of the soil borings were completed from a barge, some over a considerable amount of water. Some soil borings were completed from a marsh buggy over shallow water and thick marsh grass.
09/22-Ongoing	EVANGELINE ROAD & CN RAILROAD CULVERT: St. Charles Parish, LA. Drilling Supervisor. Ardaman completed subsurface exploration and geotechnical engineering evaluation. The project consists of the installation of two reinforced concrete box culverts (RCBCs) on the north and south sides of the CN Railroad as it crosses over Evangeline Road near Montz, Louisiana in St. Charles Parish. Ardaman performed the geotechnical fieldwork and engineering evaluation including recommendations for site preparation, shoring and bedding recommendations, and pavement design in a final report.
04/21-Ongoing	SP NOS. 700-29-0112, 700-29-0130, H.012565, H.012891, H.014251, H.014252, H.014253, H.014254, H.014256, H.014257 / RURAL BRIDGE INITIATIVE PHASE II: West Feliciana, East Feliciana, Livingston, St. Bernard Parishes, LA. Drilling Crew Chief. This project consists of the replacement of multiple small two-lane bridges throughout rural areas of Southeast Louisiana which generally ranged in length from 100 to 400 feet, mainly over small rivers and creeks. Mr. Floyd oversaw all aspects of this project pertaining to coordination of fieldwork including 31 deep soil borings. Some of these borings were performed through the middle of bridges and at hard access locations.
10/18 06/21	SP NO. H.000263.5-1 / CHEF MENTEUR PASS BRIDGE & APPROACH: Orleans Parish, LA. Drilling Crew Chief. Mr. Floyd helped manage and oversee all aspects of an extensive field investigation program which included 37 deep soil borings in accordance with LADOTD guidelines, including borings over 200 feet in over 80 feet deep of high flow water.
07/15-Ongoing	SP NO. H.004273.5 / I-49 CONNECTOR (LAFAYETTE REGIONAL AIRPORT TO I-10/I-49/US 167 INTERCHANGE): Lafayette Parish, LA. Drilling Supervisor. The project consists of construction of 5 miles of freeway consisting of a 3.5-mile elevated structure from I-10 to the Airport in Lafayette, LA. Mr. Floyd managed and oversaw the completion of the Phase 2 Kaliste-Saloom Interchange field investigation program which included 26 deep soil borings and 10 CPT soundings in accordance with LADOTD guidelines. He performed site reconnaissance, coordinated the access along with traffic control and pavement coring.
10/09-Ongoing	SP NO. H.004646.5 / I-20 MISSISSIPPI RIVER BRIDGE REVIEW: Vicksburg, MS. Drilling Supervisor. Mr. Floyd has performed and supervised all aspects of field operations associated with this multi-million-dollar, high technical needs project consisting of investigating the movement of the I-20 Bridge in Vicksburg, Mississippi. Ardaman managed a comprehensive laboratory testing program and refined a geotechnical site characterization for the bank/bluff where there was evidence of shifting creating movement in the bridge structure. To allow for this advanced testing program, it was imperative to obtain high quality undisturbed soil samples in difficult drilling conditions. Mr. Floyd was instrumental in completing these tasks as well as installing all types of instrumentation to maintain a highly extensive automated monitoring program at the site including vibrating wire piezometers, SAA inclinometers and traditional inclinometers.

Firm employed by: Neel-Schaffer, Inc.  NEEL-SCHAFER					
Name	William Case Fulcher, PE, PTOE, PTP, RSP_{12B}		Years of relevant experience with this employer	6	
Title	Project Engineer		Years of relevant experience with other employer(s)	3	
Degree(s) / Years / Specialization			BS / 2012 / Civil Engineering; MS / 2015 / Civil Engineering		
Active registration number / state / expiration date			PE No. 45329 / LA / 09-30-2027		
Year registered	2021	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Traffic Engineering Services		
Mr. Fulcher joined Neel-Schaffer in 2017 after working as a graduate research/teaching assistant for the Mississippi State University Department of Civil and Environmental Engineering. Since joining Neel-Schaffer he has provided a variety of traffic data collection and safety analysis studies and services. Mr. Fulcher has extensive experience in corridor and intersection safety studies. Through the evaluation of crash history, roadway geometrics, and traffic volumes, he evaluates a variety of safety improvements to provide a ranked list of safety improvements. Mr. Fulcher has completed training and has extensive experience with LADOTD's CAT Scan safety tool. He also has significant experience in traffic forecasting, modeling, and analysis using CORSIM, HCS, Vistro, Synchro, ISATe, and TruTraffic. Mr. Fulcher is a certified Professional Traffic Operations Engineer (PTOE) and a Road Safety Professional (RSP1) and has completed LADOTD's Traffic Engineering Process and Report (TEPR) training.					
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).				
06/22 – Present	District 03 Safety Investment Plan, LADOTD: Engineer for this study evaluating crashes at 119 locations on the state and local highway networks using variations in crash statistics to identify possible roadway issues and potential low-cost safety improvements.				
05/20 – 06/21	District 05 Safety Investment Plan, LADOTD: Project Manager, Traffic Engineer, Safety Analyst. Performed area wide safety screening to identify areas with high potential for safety improvements. Identified potential safety improvements to 81 locations including segments and intersections within LADOTD District 05. Prepared a ranked priority list of projects. Coordinated and led project meetings.				
02/19 – 03/20	District 07 Safety Investment Plan, LADOTD: Project Engineer for this study evaluating crashes at 63 locations on the state and local highway networks using variations in crash statistics to identify possible roadway issues and potential low-cost safety improvements.				
02/18 – 02/19	District 08 Safety Investment Plan, LADOTD: Engineer Intern, Safety Analyst. Identified potential safety improvements to 68 locations including both segments and intersections within LADOTD District 08. Developed an Excel based tool to perform benefit/cost comparisons of safety countermeasures. Prepared a ranked priority list of projects.				
09/21 – 04/24	Retainer Contract for Safety Studies, District 61 Safety Study, LA (S.P. No. 44-10504, T.O. No. H.014684.1): Safety Analyst. Design of Safety Projects. Performed area wide safety screening, crash and data analysis to identify areas with high potential for safety improvements. Identified potential safety improvements to 9 intersections within LaDOTD District 61.				
11/19 – Present	US 80: Intersection @ Bellevue Rd Stage 0/Feasibility Study (S.P. No. H.014044.1); Engineer Intern: Performed traffic data collection, safety analysis, and traffic operational analysis.				

02/18 – 02/19	LA 385 Ryan Street Feasibility Study, Lake Charles, LA (S.P. No. 44-4402, T.O. No. H.012685.1) , Engineer Intern. Performed data collection, traffic engineering, and transportation planning services for a feasibility study to determine safety and operational improvements for approximately 1.8 miles of LA 365 in Lake Charles, LA. Services included traffic volume forecasts, intersection and segment analysis, alternative development, and identifying potential safety countermeasures.
02/17 – 10/17	Runway 13-31 RSA & RPZ Improvement Project Traffic Study (S.P. No. H.011279.1) : Engineer Intern: Provided traffic analysis and transportation planning services for the proposed relocation of LA 67 to provide an extended runway safety area for the Baton Rouge Metropolitan Airport.
02/17 – 02/18	US 190 & US 171 Signal Timing Study (S.P. No. 44-4064, T.O. No. H.012686.5) : Engineer Intern: Provided traffic engineering services including both the development and implementation of traffic signal timing plans for ten signals in DeRidder, LA.
02/20 – 10/21	I-59 at US 49 PEL Study, Forrest County, MS : Traffic Engineer, Safety Analyst. Provided the safety analysis for both existing and future expected conditions. Assisted with traffic engineering services.
01/20 – 09/21	Mississippi State University Master Plan Update, Mississippi State, MS : Transportation Planner. Services included identifying improvements to existing circulation, identifying new beneficial connections, determining areas of parking need, identifying potential new parking locations.
06/17 – 09/18	I-10 New Orleans Master Plan, Port Access Improvements, New Orleans, LA : Engineer Intern. Provided traffic engineering and transportation planning services to develop an operational and capital improvement plan for the I-10 corridor at its junction with US 90B to improve congestion and port access.
06/21 – Present	District 6 Emergency Signal and ITS Repair, Hancock and Harrison Counties, MS : Traffic Engineer. Performed signal inventories and prepared signal design sheets and quantity takeoffs.
10/21 – Present	Harding Boulevard at Interstate I-110 (“MovEBR”) : Safety Analyst. Performed crash analysis along Harding Boulevard in the vicinity of I-110 to determine potential safety issues and develop safety improvement recommendations where feasible.
09/20 – Present	College Drive Enhancements (“MovEBR”) : Safety Analyst. Performed crash analysis along College Drive in the vicinity of I-10 to determine potential safety issues and develop safety improvement recommendations where feasible.
06/21 – Present	US 51 between Church Road and Green T Road, Desoto County, MS (S.P. No. SPR- 1(1 2I) /1.08597 -1 10000, T.O. No. NS-P/E 2019-04) : Traffic Engineer, Safety Analyst. Provided the safety analysis and assisted with traffic engineering services for improvements to this section of US 51.
05/21 – 09/21	I-59 at US 49 PEL Study, Forrest County, MS : Traffic Engineer, Safety Analyst. Provided the safety analysis for both existing and future expected conditions. Assisted with traffic engineering services.

Firm employed by: Neel-Schaffer, Inc.				 NEEL-SCHAFER	
Name	Charles LeBoeuf, PE, PTOE		Years of relevant experience with this employer	11.5	
Title	Senior Traffic Engineer		Years of relevant experience with other employer(s)	1.5	
Degree(s) / Years / Specialization			BS / 2012 / Civil Engineering; MS / 2014 / Civil Engineering		
Active registration number / state / expiration date			PE 0042854 / LA / 03-31-27; PTOE 5397 / 11-23-28		
Year registered	2018	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Traffic Forecasting & Travel Demand Modeling; Traffic Analysis; Safety Analysis		
Mr. LeBoeuf joined Neel-Schaffer in 2014 and has 13 years of experience in the engineering field, including 18 months as a Co-Op student with LADOTD. Since joining Neel-Schaffer, Mr. LeBoeuf has provided a wide variety of transportation-related services, including travel demand modeling, GIS, crash analysis, traffic analysis, and mesoscopic modeling. He also has experience in the collection of turning movement counts for development projects. Mr. LeBoeuf has completed DOTD's Traffic Engineering Process and Report (TEPR) training.					
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 – 04/20	LA 328 (Rees Street) Corridor Study and Plan: Project includes improving La. Hwy. 328/Rees Street from Latiolais Road to E Bridge Street including considering the impacts of the proposed E Mills Ave extension LA 328 to Doyle Melancon Ext. roadway and outreach.				
02/22 – 10/22	Pinhook Road at Kaliste Saloom Road, Lafayette, LA: This project evaluated the conversion of the intersection of Pinhook Road at Kaliste Saloom Road from a full access signalized intersection to a quadrant intersection. For this project, Mr. LeBoeuf analyzed the proposed intersection concept in Synchro and developed signal timings and lane geometry that would reduce intersection delay.				
10/21 – 12/22	College Drive Enhancement Project, Baton Rouge, LA (City of Baton Rouge): Several off-corridor concepts were considered near College Drive between Perkins Road and I-10. Mr. LeBoeuf analyzed these off-corridor concepts using mesoscopic modeling to determine which concept, or group of concepts, would result in the most improvements within the study area. These improvements include a reduction in vehicle delays and shifts in traffic volumes.				
02/21 – 03/25	H.013897: I-10 and I-12 College Flyover Ramp Design-Build Project, Baton Rouge, LA (LADOTD): This project documented the expected work zone impacts to I-10, I-12, and nearby surface arterials due to the construction of the College Drive Flyover. Mr. LeBoeuf analyzed the expected work zone impacts using mesoscopic modeling (Dyanmeq) for the first phase of construction. The impacts included queueing, shifts in traffic volumes, and traffic speeds.				
07/20 – Present	H.013284: MRB South GBR: LA 1 to LA 30 Connector, Baton Rouge, LA (LADOTD): This project uses mesoscopic modeling to analyze a proposed new crossing over the Mississippi River from LA 1 to LA 30 between I-10 and LA 70. Mr. LeBoeuf used the existing traffic data to develop peak period volumes and travel times which were to be used in the model calibration and validation. Mr. LeBoeuf developed the Base mesoscopic model by first expanding a previous Dyanmeq mesoscopic model to include the West Bank of the Mississippi River from Baton Rouge to Donaldsonville, and then performing Dynamic Traffic Assignments using Origin-Destination (O-D) matrices. Afterwards, Mr. LeBoeuf used the existing traffic data to calibrate				

	the Base model to better reflect existing traffic conditions. Once the Base model was finished, Mr. LeBoeuf then developed the No Build model, which included proposed highway improvements and an updated O-D matrix. This No Build model was then used as a background model to develop Bridge-specific models for each of the 20 proposed Bridge crossings.
02/25 – Present	H.016168: Baton Rouge Northern Bypass Expressway (NBE), Baton Rouge, LA (LADOTD): This project uses mesoscopic modeling to determine the feasibility of upgrading Airline Highway in West Baton Rouge and East Baton Rouge Parishes to a controlled-access toll road with parallel toll-free frontage roads. Mr. LeBoeuf expanded the mesoscopic model developed for the Mississippi River Bridge project to cover the entire five-parish Baton Rouge Metropolitan Area. Afterwards, Mr. LeBoeuf used the existing traffic data to calibrate the Base model to better reflect existing traffic conditions. Once the Base model was completed, Mr. LeBoeuf then developed the No Build models, which included proposed highway improvements and an updated O-D matrix for the years 2030 and 2046. Following the development of the No Build models, Mr. LeBoeuf began the Build model development for the proposed Bypass. The proposed Bypass begins at I-10 west of Port Allen and follows Airline Highway from LA 415 to Pecue Lane.
12/18 – 02/19	I-635 LBJ East Alternative Technical Concepts, Dallas, TX: Alternative Technical Concepts were proposed for three interchanges associated the I-635 LBJ East Project in Dallas, TX. For this project, Mr. LeBoeuf analyzed the freeway and frontage road elements, comparing the operational changes between the original build concept and the proposed Alternative Technical Concept.
01/17 – 08/18	I-10 Mobile River Bridge Interchange Modification Report, Mobile, AL: This project analyzed the impacts of the new I-10 bridge crossing the Mobile River to the south of the existing I-10 Wallace Tunnels in Mobile, AL. Mr. LeBoeuf developed future peak hour volumes using the Travel Demand Model results for Mobile and Baldwin Counties for the No Build scenario, which involved no improvements to study area roadways, and for the Build scenario, which incorporated the new I-10 Mobile River Bridge, a widened I-10 Bayway from Mobile to Daphne, AL, and interchange improvements along I-10 within the study area. Mr. LeBoeuf performed intersection traffic analyses using the existing and future peak hour traffic volumes and recommended the intersection geometry for study area intersections.
01/17 – 02/18	Western Beltway Phase II Feasibility Study, Hattiesburg, MS: This project determined the feasibility of extending MS 42 from I-59 to US 49 north of Hattiesburg, MS. Mr. LeBoeuf developed existing peak hour volumes and volume characteristics such as peak hour factors and heavy vehicle percentages. Mr. LeBoeuf developed future peak hour volumes using the Hattiesburg, MS Metropolitan Planning Organization's Travel Demand Model results for the No Build scenario, which involved no improvements to study area roadways, and for the Build scenario, which incorporated two roadway alignment alternatives. Mr. LeBoeuf performed intersection traffic analyses using the existing and future peak hour traffic volumes and recommended the intersection geometry for study area intersections. Mr. LeBoeuf analyzed crash data to determine crash trends and estimate the expected number of crashes for future scenarios. Mr. LeBoeuf also performed a benefit-cost analysis for each scenario using the expected number of crashes and expected changes in travel times.

Firm employed by: Neel-Schaffer, Inc.  NEEL-SCHAFER					
Name	Dishili Young Curry, PE, PTOE		Years of relevant experience with this employer	6	
Title	Vice President / Engineering Manager		Years of relevant experience with other employer(s)	15	
Degree(s) / Years / Specialization			BS / 2002 / Civil Engineering; MS / 2018 / Civil Engineering		
Active registration number / state / expiration date			PE No. 33723 / LA / 09-30-2026		
Year registered	2008	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Roadway Lead		
Dishili offers approximately 20 years of progressive experience which includes program management, engineering management, project management and engineering design. Her experience includes the management and design of interstate design-build projects, interstate design-bid-build projects, including roundabout interchanges, road design projects, including multilane roundabouts, drainage projects, H&H Studies, environmental studies and feasibility studies. Her Continuing Education is documented as follows: Transportation Safety Systems (Highway Safety Manual Graduate Course), Auburn University, 2016; ATSSA Traffic Control Supervisor Training Course, Baton Rouge, 2015; ATSSA Traffic Control Technician Training Course, Baton Rouge, 2015; FHWA Highway Safety Manual Workshop, Baton Rouge, 2014; Roadside Safety Design by the Federal Highway Administration and National Highway Institute, LTRC, 2010; Urban Street Design, University of Wisconsin, Madison; Open Channel Design, University of Wisconsin, Madison; Comprehensive Culvert Design, University of Wisconsin; Maintaining Asphalt Pavements, University of Wisconsin; Using HEC-RAS to compute water surface profiles for floodplains, bridge and culvert hydraulics, University of Wisconsin; DOTD's Traffic Engineering Process and Report (TEPR) training.					
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).				
03/23 – Present	IDIQ for Road Design Projects - this contract includes three separate Task Order projects which include traffic services, road design, preliminary and final plan development. The projects include pavement preservation, constructing new roads, extend existing roads, construction of roundabouts, turn lanes and drainage improvements. Includes temporary traffic control plans. 1.) US 90: Roundabout a LA 101 (Calcasieu) (SPN. H.015226); Project Manager and Design Services. This project includes the design for a roundabout with high-speed approaches. The design avoids impacts to a gas station, and other development at the intersection. It includes minimum right of way taking and detention pond design. 2.) LA 621: Realignment @ LA 73 (Ascension) (SPN. H.014366); Project Manager and Design Services. This project will widening LA 73 and realign LA 621 to near its existing intersection with LA 73 to relieve congestion and improve safety. This project includes the design of a multilane roundabout to provide connectivity for local roadways, traffic analysis, Transportation Management Plan, and 1 mile of mill and overlay for LA 621. 3.) LA 16: N 2nd Street to LA 445 (Tangipahoa Parish) SPN. H.009425.5; Project Manager and Design Services. Project includes the mill and overlay of LA 16 from N 2nd Street to east of Duncan Avenue, the in-place base rehabilitation and overlay of LA 16 from east of Duncan Avenue to LA 445. The scope of work will also include the hydraulic analysis and development of construction plans for the rehabilitation of the existing subsurface drainage system to improve drainage along LA 16 from US 51 to approximately 1000' east of Duncan Avenue.				

	4.) LA 182: US 90 – Greenwood St. Overpass SPN. H.016158; Project Manager and Design Services. This project includes pavement rehabilitation along LA 182 from WB Exit Ramp to Greenwood St. Overpass, in Morgan City, LA. The work includes pavement patching, mill and overlay, roadway reinforcing mesh, curb ramps and guard rail.
04/23 – Present	Jimmie Davis Design Build: This project will construct a new 4-lane bridge over the Red River, convert LA 511 from a five-lane roadway to a 4-lane median divided roadway with turn lanes, and construct full-access interchange connections with LA 511 at both Arthur Ray Teague Parkway and Clyde Fant Memorial Parkway. She assisted with design-related tasks. Managed the roadway drainage design, and managed the scour analysis, attends team technical meetings and meetings with DOTD. Provided QA/QC. She also assisted with the plan production and design. Includes temporary traffic control plans.
01/20 – Present	I-20: LA 544 Overpass Replacement: Managing the preliminary and final design services for this project. This project will replace the LA 544 Overpass diamond interchange with a diamond roundabout interchange. The project includes a new bridge over I-20 with sidewalks and four multilane roundabouts within a roundabout interchange with two roundabouts on a 3% longitudinal grade & partially on bridge. Includes a level 2 TMP Includes temporary traffic control plans.
04/18 – Present	I-49 South at Verot School Road: Managing the design services for the interstate design and service road design (drainage, preliminary and final road design and TMP). This project will construct 2.4 miles of mainline freeway, bridges and an interchange at the intersection of I-49 South/US 90 and Verot School Road. This project includes the design of a major bridge crossing at Verot Rd. and I-49 and a roundabout at the relocated intersection of Verot Rd and South Collage Rd. Neel-Schaffer (NSI) is serving as the subconsultant for this project. NSI is designing the interstate mainline and frontage roadways, as well as designing the drainage along these corridors. NSI is also completing the traffic design and level 3 TMP. Includes a multilane roundabout.
09/18 – 12/18	I-20 at 220 Interchange Improvement & BAFB Design-Build Project: Included preliminary plan development for completing the existing partial interchange by adding a new flyover ramp, cloverleaf ramp, modifying existing ramps, and providing a new arterial roadway with a new bridge over the Kansas City Southern railroad.
08/17 – 03/19	Juban Road Widening: Served as the engineer of record and managed the completion of the roadway and drainage design services for this project which will widen LA 1026 (Juban Rd.), construct three multilane roundabouts and two new frontage access roadways, with storm drainage sewer systems. Includes temporary traffic control plans.
08/17 – Present	Mandeville Bypass, Mandeville, LA: This project will provide a new 3 Mile median divided roadway with integral bike path connecting LA 1088 near its interchange with I-12 and US 190 near Fontainebleau Park. It will construct five roundabouts and multiple entrances to Pelican Park. Ms. Young is managing the roadway design services. Includes multiple multilane roundabouts. This project is in construction Includes temporary traffic control plans.
12/22 – Present	LA 89 @ Guillot Rd Improvements: Existing drainage determination, proposed drainage design and plan preparation. Includes roundabouts. Preliminary and Final Road Design.
08/22 – Present	LA 89 at Chemin Metairie Parkway, Youngsville, LA: This project provides new two-lane connector roadway with drainage between Chemin Metairie Parkway & LA 89. Includes multilane roundabouts in final design stage. This project is on hold awaiting funding.
09/22 – Present	E. Milton Ave Improvements, Lafayette Parish, LA: This project will widen an existing Roundabout at E. Milton Ave./Chemin Metairie Rd intersection from single lane to multi-lane and widen and overlay E. Milton Ave. and Chemin Metairie Rd. in Youngsville, LA. Roadway and Drainage Design. This project is on hold awaiting funding. Includes temporary traffic control plans.

Firm employed by: Neel-Schaffer, Inc.  NEEL-SCHAFER					
Name	Ellen Burke Howard, PE, PTOE, RSP₁		Years of relevant experience with this employer	10	
Title	Project Manager		Years of relevant experience with other employer(s)	5	
Degree(s) / Years / Specialization		BS / 2009 / Civil Engineering			
Active registration number / state / expiration date		PE No. 38207 / LA / 03-31-26, PTOE No. 3735 / 08-01-26, RSP No. 349 / 12-9-28			
Year registered	2013	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities		Traffic Engineering Services, MPR 9			
Mrs. Howard joined Neel-Schaffer, Inc., in January 2014. Before joining Neel-Schaffer, Mrs. Howard worked as a Traffic Engineer for DOTD District 62. She also worked as a Traffic Engineer Intern for DOTD's Traffic Engineering Management Section in Headquarters. She worked on a variety of projects involving Traffic Engineering Studies, Signal Timing and Coordination, Corridor Studies, traffic modeling using VISSIM and Transportation Management Studies. Since joining NS, she has completed numerous Corridor Studies, Intersection Studies, Safety Studies, Traffic Impact Studies, and Temporary Traffic Control Plans. She has been responsible for simulation modeling using Vissim as well as traffic operation / capacity analysis using HCS, Synchro and Sidra. She is proficient in Traffic Engineering software such as HCS, Synchro, SIDRA, SimTraffic, VISSIM as well as DOTD's CAT Scan safety tool. She also attended Highway Safety Manual (HSM) workshop, Highway Capacity Analysis Seminar, Roundabout Design Workshop, Traffic Signal Workshop, Synchro Training, Vissim Training, Access Management Location and Design Course, Alternative Intersections / Interchanges Workshop, and Crash Reconstruction for Traffic Engineers Course. With Neel-Schaffer, Mrs. Howard has served as a project engineer for the noted traffic-related DOTD projects. Mrs. Howard is a certified Professional Traffic Operations Engineer (PTOE), a certified Road Safety Professional Level 1, and has completed DOTD's Traffic Engineering Process and Report (TEPR) training.					
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).				
03/23 - Present	LA 621: Realignment @ LA 73 (Ascension) (SPN. H.014366): Traffic Lead. This contract includes three separate Task Order projects which include traffic services, road design, preliminary and final plan development. As part of an IDIQ for road design projects, this project will widen LA 73 and realign LA 621 to near its existing intersection with LA 73 to relieve congestion and improve safety. This project includes the design of a multilane roundabout to provide connectivity for local roadways, traffic analysis, Transportation Management Plan, and 1 mile of mill and overlay for LA 621. Project engineer for Vissim modeling and traffic capacity analysis.				
04/23 - Present	Jimmie Davis Design Build: This project will construct a new 4-lane bridge over the Red River, convert LA 511 from a five-lane roadway to a 4-lane median divided roadway with turn lanes, and construct full-access interchange connections with LA 511 at both Arthur Ray Teague Parkway and Clyde Fant Memorial Parkway and provide associated roadway drainage systems. Project Engineer for traffic analysis, TMP, traffic signal design and safety analysis.				
09/25 - Present	LADOTD US 190: Wooddale to Livingston Parish P/L Study (H.016437.5): Traffic Lead. This project includes a corridor safety and operational study to establish an integrated, systematic, and performance-based approach to evaluate potential safety and operational improvements. The objective of this study is to analyze existing and future conditions along the corridor and identify potential treatments to improve safety, access management, and traffic operations. Tasks include collecting traffic and				

	VRU data along the US 190 corridor. A detailed safety and traffic analysis will also be conducted to assist with determining potential improvements in the study area.
09/25 - Present	US 61: Cardinal to Bert Corridor Study (H.014035.1): Traffic Lead. Comprehensive safety and operational analysis of approximately two miles of Airline Highway (US 61) in LaPlace to identify corridor deficiencies and evaluate feasible multimodal improvements, with a strong emphasis on pedestrian safety. Neel-Schaffer's scope includes detailed data collection, crash and traffic analysis, development and evaluation of improvement alternatives, conceptual design, benefit-cost analysis, and a phased implementation plan to guide future project development.
02/23 - Present	US 61 at Victoria Drive Pedestrian Crossing, Baton Rouge, LA: Traffic Lead. Safety and Traffic study to identify pedestrian safety countermeasures at a high need location on US 61 in East Baton Rouge Parish. This study identified and analyzed a pedestrian crossing location with a high number of predicted pedestrian crashes and expected use consistent with planned regional multiuse paths along Airline Highway in North Baton Rouge.
01/14 – 05/15	Safety Study, LA 49 (Williams Blvd.,) Kenner, LA – Stage 0 / Safety Study (S.P. No. 4400001583, T.O. No. H.010570): Traffic Engineer responsible for data collection, intersection operational signal analyses (Synchro), and Vissim modeling.
07/21 – Present	US 190 Access Management Stage 0 and Traffic Study: Traffic Engineer responsible for initial and final data collection, existing safety analysis and existing and no-build traffic analysis, and the final traffic report.
03/21 – Present	MOVEBR N. Sherwood Forest Extension (C-P Proj. No. 20-CP-HC-0014): Traffic Engineer responsible for initial and final data collection, existing safety analysis, existing and no build HCS analysis, alternatives HCS analysis, and the final traffic report.
09/20 – Present	MOVEBR College Drive Enhancements (C-P Proj. No. 19-EN-HC-0033): Traffic Engineer responsible for calibrated Vissim model, existing and no-build traffic analysis and alternatives analysis.
09/21 – 07/22	MOVEBR Harding Boulevard at Interstate I-110 (C-P Proj. No. 20-CP-HC-0016): Traffic Engineer responsible for initial and final data collection, existing safety analysis and existing and no-build traffic analysis, Tier 1 alternative analysis, and final traffic report. The project involved a traffic study along Harding Boulevard between Rosewood Street and Merle Gustafson Drive including the I-110 Ramps in an effort to improve capacity.
08/20 – 10/21	I-10 & I-12 College Dr. Flyover Ramp Design-Build Project (S.P. H.013897.1): Traffic Engineer responsible for calibrated Vissim model and traffic analysis, and Interchange Modification Report.
12/19 – 03/20	US 80: Intersection @ Bellevue Rd (S.P. No. 4400010504, T.O. No. H.014044.1): Traffic Engineer responsible for Initial and final data collection, existing safety analysis, and Chapter 1 of Final Report and signalized intersection analysis.
02/15 – 12/17	US 51 (W University to I-55) Corridor Study (Contract No. 4400004064, T.O. No. H.011401.1): Includes analysis of eight roundabout geometry intersections. Traffic Engineer assisted with Corridor Operational Analyses.
10/17 – 01/18	Move Ascension - 6 Intersection Improvement Studies for Ascension Parish: Traffic Engineer responsible for data collection, intersection traffic operational analyses (Synchro, Vistro, and Sidra), safety analyses, warrant analysis, signal analysis, benefit/cost analyses, and traffic report preparation.
02/16 – 04/18	LA 22 (Rou Mar Nei Drive to 1st Street) (Contract No. 4400004064, T.O. No. H.011618.1): Traffic Engineer assisted with corridor traffic operational analyses including traffic signal analysis.

Firm employed by: Neel-Schaffer, Inc.  NEEL-SCHAFER					
Name	Jonathan Duhe, PE, PTOE, RSP		Years of relevant experience with this employer	11	
Title	Project Engineer		Years of relevant experience with other employer(s)	1	
Degree(s) / Years / Specialization			BS / 2011 / Civil Engineering		
Active registration number / state / expiration date			PE No. 41047 / LA / 03-31-2027; PTOE No. 4418; RSP No. 282		
Year registered	2016	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Traffic Engineering Services		
Jonathan joined Neel-Schaffer in 2013 and has nearly a decade of experience working on a wide range of traffic and transportation projects. He has worked on many intersection/corridor signal timing studies and signal design projects and other traffic engineering related projects for both public and private projects. He is experienced with numerous traffic engineering software packages include HCS, SYNCHRO, VISTRO, Tru-Traffic (TSPPDraft), and SIDRA. Jonathan has completed training and has experience using LADOTD's CAT Scan safety tool. He is a certified Professional Traffic Operations Engineer (PTOE), a Road Safety Professional (RSP1) and has completed LADOTD's Traffic Engineering Process and Report (TEPR) training.					
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).				
03/23 - Present	IDIQ for road design projects - this contract includes three separate Task Order projects which include traffic services, road design, preliminary and final plan development. The projects include pavement preservation, constructing new roads, extend existing roads, construction of roundabouts, turn lanes and drainage improvements. 1.) US 90: Roundabout a LA 101 (Calcasieu) (SPN. H.015226); Traffic Services. This project includes the design for a roundabout with high-speed approaches. The design avoids impacts to a gas station, and other development at the intersection. It includes minimum right of way taking and detention pond design. 2.) LA 621: Realignment @ LA 73 (Ascension) (SPN. H.014366); Traffic Services. This project will widening LA 73 and realign LA 621 to near its existing intersection with LA 73 to relieve congestion and improve safety. This project includes the design of a multilane roundabout to provide connectivity for local roadways, traffic analysis, Transportation Management Plan, and 1 mile of mill and overlay for LA 621. 3.) LA 16: N 2nd Street to LA 445 (Tangipahoa Parish) SPN. H.009425.5; Traffic Services. Project includes the mill and overlay of LA 16 from N 2nd Street to east of Duncan Avenue, the in-place base rehabilitation and overlay of LA 16 from east of Duncan Avenue to LA 445. The scope of work will also include the hydraulic analysis and development of construction plans for the rehabilitation of the existing subsurface drainage system to improve drainage along LA 16 from US 51 to approximately 1000' east of Duncan Avenue. 4.) LA 182: US 90 – Greenwood St. Overpass SPN. H.016158; Traffic Services. This project includes pavement rehabilitation along LA 182 from WB Exit Ramp to Greenwood St. Overpass, in Morgan City, LA. The work includes pavement patching, mill and overlay, roadway reinforcing mesh, curb ramps and guard rail.				

02/22 – Present	W. Broussard Roundabout at Duhon Rd. (LA 724): This project will construct a roundabout and required drainage improvements. Includes roundabout. Completed the horizontal and vertical alignments (line and grade). Preliminary and final plans.
02/20 – Present	I-20 at LA 544 Overpass Replacement, Lincoln Parish, LA: This project will replace the existing LA 544 bridge crossing and interchange with a new bridge and roundabouts. This project includes four multilane roundabouts located in a tight project area with many constraints and large grade changes. The roundabouts will connect ramps and service roads with adjacent businesses. The project includes new bridge with sidewalk over I-20. The entire project limits are complete street compliant which means it provides facilities for all users. Tasks similar to Line and Grade completed: Established design criteria, typical roadway sections, horizontal and vertical geometry, ID structure locations and more. Mr. Duhe provided signal design review. Preliminary and final plans.
08/22 – Present	LRSP Ardenwood Dr Road Diet, Baton Rouge, LA: Project Engineer, Responsible for Data Collection (Traffic Counts and Peak Hour Observations), Traffic Forecasting, Safety Analyses, Corridor Operational Analyses (HCS, Sidra), Safety Analyses, Traffic Report Preparation.
07/21 – Present	FYA Signal Improvement (LCG), Lafayette, LA: Project Engineer. Oversaw development of signal plans to upgrade 28 intersections to include flashing yellow arrow signal heads as well as backplates.
09/21 – Present	Harding Blvd at I-110, Baton Rouge, LA: Traffic Engineer. Performing a traffic study along Harding Boulevard between Rosewood Street and Merle Gustafson Drive including the I-110 Ramps in an effort to improve capacity. Assisted with data collection and Initial Data Collection Report.
09/20 – Present	College Drive Enhancement Project, Baton Rouge, LA: Traffic Engineer. Performing a traffic study along College Drive between Perkins Road and Bawell Street/Bankers Avenue including the I-10 Ramps in an effort to improve capacity and safety. Assisted with data collection including peak period observations and travel time runs. Also performed safety analysis along the College Drive corridor.
06/20 – Present	I-10/12 College Drive Flyover Design Build, Baton Rouge, LA: Traffic Engineer. Performing a traffic study at the I-10/12 merge in an effort to improve capacity and safety. Assisted with uncalibrated VISSIM model. Assisted with safety analysis and signal design.
04/20 – 06/21	District 05 Safety Investment Plan District 05, LA: Traffic Engineer. Assisted with safety analysis including reviewing crashes utilizing LaDOTD's CATScan tool and performing benefit-cost analysis of potential safety improvements. Also assisted with report preparation.
11/17 – 04/19	District 08 Safety Investment Plan District 08, LA: Traffic Engineer. Assisted with safety analysis including reviewing crashes utilizing LaDOTD's CATScan tool and performing benefit-cost analysis of potential safety improvements. Also assisted with report preparation.
02/19 – 03/20	District 07 Safety Investment Plan District 07, LA: Traffic Engineer. Assisted with safety analysis including reviewing crashes utilizing LaDOTD's CATScan tool and performing benefit-cost analysis of potential safety improvements. Also assisted with report preparation.
11/16 – 04/19	LA 385 (Ryan St) Feasibility Study, Lake Charles, LA: Traffic Engineer. Assisted with intersection analysis including Vistro analysis. Assisted with safety analysis including reviewing crashes, creating collision diagrams, identifying conflict points, and using LaDOTD's CATScan tool to analyze safety. Also assisted with report preparation.

Firm employed by: Neel-Schaffer, Inc.		 NEEL-SCHAFER	
Name	Mai Nguyen, PE	Years of relevant experience with this employer	8
Title	Roadway Design Engineer	Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization		BS / 2008 / Civil Engineering	
Active registration number / state / expiration date		PE No. 38189 / LA / 03-31-2028	
Year registered	2013	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities		Roadway Design - LA MPR 23	
			
Mai has over 14 years of experience as a Roadway Design Engineer, including over six years working for LADOTD roadway design. She is proficient with modeling and developing roadway plans in accordance with LADOTD design guidelines. She has completed numerous roadway construction plans, including roadway alignments, cross sections, geometric details, graphical grades, drainage design, construction sequencing, striping, and signing layout, and cost estimates. She also has completed countless interchange geometric designs, roundabouts, and unconventional intersections following AASHTO and LAD-OTD design guidelines. She is experienced with utility coordination, creating detour plans, and working with Contractors and LADOTD Engineers to ensure the project is constructed according to plans. She has been involved with preliminary and final roadway design plans, feasibility studies, stage 0 reports, environmental assessment study, roadway concept layouts for traffic studies, develop high level cost estimates for multiple District Safety Investment Plans. She is Certified as a Work Zone Traffic Control Supervisor, Technician and Flagger.			
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
01/20 – Present	I-20: LA 544 Overpass Replacement, Lincoln Parish, LA: lead for road design preliminary and final design services for this project, which will replace the LA 544 Overpass diamond interchange with a diamond multilane roundabout interchange on a 3% longitudinal grade. The new bridge over I-20 will include sidewalks and four multilane roundabouts. This project includes a level 2 TMP. Includes Temporary Traffic Control Plans.		
03/23 – Present	IDIQ for road design projects - this contract includes three separate Task Order projects which include traffic services, road design, preliminary and final plan development. The projects include pavement preservation, constructing new roads, extend existing roads, construction of roundabouts, turn lanes and drainage improvements. Includes Temporary Traffic Control Plans. 1.) US 90: Roundabout a LA 101 (Calcasieu) (SPN. H.015226); Project Engineer and Design Services. This project includes the design for a roundabout with high-speed approaches. The design avoids impacts to a gas station, and other development at the intersection. It includes minimum right of way taking and detention pond design. 2.) LA 621: Realignment @ LA 73 (Ascension) (SPN. H.014366); Project Engineer and Design Services. This project will widening LA 73 and realign LA 621 to near its existing intersection with LA 73 to relieve congestion and improve safety. This project includes the design of a multilane roundabout to provide connectivity for local roadways, traffic analysis, Transportation Management Plan, and 1 mile of mill and overlay for LA 621. 3.) LA 16: N 2nd Street to LA 445 (Tangipahoa Parish) SPN. H.009425.5; Project Engineer and Design Services. Project includes the mill and overlay of LA 16 from N 2nd Street to east of Duncan Avenue, the in-place base rehabilitation and overlay of LA 16 from east of Duncan Avenue to LA 445. The scope of work will also include the hydraulic analysis and development of		

	construction plans for the rehabilitation of the existing subsurface drainage system to improve drainage along LA 16 from US 51 to approximately 1000' east of Duncan Avenue. 4.) LA 182: US 90 – Greenwood St. Overpass SPN. H.016158; Project Engineer and Design Services. This project includes pavement rehabilitation along LA 182 from WB Exit Ramp to Greenwood St. Overpass, in Morgan City, LA. The work includes pavement patching, mill and overlay, roadway reinforcing mesh, curb ramps and guard rail.
9/22 – Present	E. Milton Ave Improvements, Lafayette Parish, LA: This project will widen an existing Roundabout at E. Milton Ave./Chemin Metairie Rd intersection from single lane to multi-lane and widen and overlay E. Milton Ave. and Chemin Metairie Rd. in Youngsville, LA. This project includes curb and gutter with side-walks. Mai is designing this project and assisting with plan production. Established design criteria, typical roadway sections, horizontal and vertical geometry, ID structure locations and more. Ms. Nguyen is working on the roadway design for the City of Youngsville. Project includes preliminary and final plans. Includes Temporary Traffic Control Plans.
06/23 – Present	US 90: Roundabout at LA 101: Roundabout intersection preliminary and final plans, drainage, sequence of construction and TMP. Includes Temporary Traffic Control Plans.
12/22 – Present	LA 89 @ Guillot Rd Improvements: Existing drainage determination, proposed drainage design and plan preparation. Includes roundabouts.
02/22 – Present	W. Broussard Roundabout at Duhon Rd. (LA 724): This project will construct a roundabout and required drainage improvements. Review of design, assist with plan production. Preliminary plans completed. Final design ongoing.
08/22 – Present	LA 89 at Chemin Metairie Parkway, Youngsville, LA: This project will provide a new two-lane connector roadway with drainage between Chemin Metairie Parkway and LA 89. Mai is working on the roadway design for the City of Youngsville. Project includes preliminary and final plans.
04/18 – Present	I-49 South at Verot School Road: This project which will construct 2.4 miles of mainline freeway, bridges, and an interchange at the intersection of I-49 South/US 90 and Verot School Road. Work includes a major bridge design and a roundabout at the relocated intersection of Verot Rd and South Collage Rd. NSI is designing the interstate mainline and frontage roadways (drainage, preliminary and final road design and TMP) as well as the drainage along these corridors. NSI is also completing the traffic design. Includes roundabout.
09/14 – 08/15	LA 16: Roundabout @ LA 447, Livingston, LA: Responsible for developing roundabout preliminary roadway plans in accordance with LaDOTD design guidelines, creating horizontal and vertical alignment layouts, modeling roadway to determine required right-of-way limits, developing sequence of construction, and perform hydraulic analysis. Includes Temporary Traffic Control Plans.
11/15 – 07/20	Southcity Parkway Extension, Lafayette, LA: This project will construct a new 1.7-mile, four-lane median divided corridor between US 167 (Johnston Street) with Kaliste Saloom Road. It includes three multilane roundabout intersections and new bridge design. The roadway and drainage design are being completed in conformance with LADOTD guidelines. NSI provided public outreach, environmental, road design (preliminary and final plans) and traffic services. Includes Temporary Traffic Control Plans.
01/11 – 01/14	LA 447 Corridor Study, Walker, LA (LA 16 to US 190): Corridor study to evaluate corridor improvements along LA 447 between LA 16 and Burgess Ave. Project included the interchange at I-12. Includes multilane roundabouts.

Firm employed by: Neel-Schaffer, Inc.  NEEL-SCHAFER					
Name	Vijay Kunada, PE, PTOE, PTP		Years of relevant experience with this employer	18.5	
Title	Senior Vice President		Years of relevant experience with other employer(s)	4.5	
Degree(s) / Years / Specialization			BS / 1999 / Civil Engineering; MS / 2001 / Civil Engineering; MS / 2002 / Computer Science		
Active registration number / state / expiration date			PE No. 32145 / LA / 03-31-26; PTOE No. 2868 / 04-14-28; PTP No. 096 / 11-07-28		
Year registered	2008	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Travel Demand Modeler, MPR 10		
Vijay Kunada serves as a Project Manager for a wide range of local and regional transportation planning and traffic engineering studies, supporting both public agencies and private development projects. His experience includes management and technical oversight of metropolitan and regional transportation plans, traffic impact studies, travel demand model development, safety studies, signal warrant analyses, traffic signal timing plans, corridor and interchange studies, and traffic simulation modeling at both mesoscopic and microscopic levels. Mr. Kunada has extensive expertise in traffic and travel demand modeling, including census and socioeconomic data analysis, regional travel demand model development using TransCAD and CUBE, and mesoscopic modeling using Dynameq and TransModeler. His technical skillset further includes regional safety data analysis, external travel surveys, and the application of industry-standard traffic analysis and simulation tools such as HCS, Synchro, SimTraffic, ISATe, VISSIM, TransModeler, Dynameq, CORSIM, and DynaSmart P, as well as ITE Trip Generation methodologies. His project experience also includes traffic studies prepared in support of Environmental Impact Statement (EIS) projects, intersection capacity analyses, and corridor-level operational evaluations. Mr. Kunada has also completed the Louisiana DOTD Traffic Engineering Process and Report (TEPR) training.					
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
02/25 – Present	H.016168.1: Baton Rouge Northern Bypass Expressway, East Baton Rouge and West Baton Rouge Parishes, LA (LADOTD, Melissa LeBas, Melissa.LeBas@la.gov, 225-379-1039): As Project Manager and Mesoscopic Modeling Lead, Vijay led the development of a regional mesoscopic traffic model using Dynameq software to evaluate the proposed Baton Rouge Northern Bypass as part of the Baton Rouge Urban Renewal and Mobility Plan (BUMP). The mesoscopic model covered a five-parish region and included calibration and validation of the 2024 base-year model, as well as development of the 2046 No-Build scenario and multiple 2046 Build scenarios for both non-tolled and tolled alternatives. Ongoing work includes testing “what-if” alternatives and evaluating measures of effectiveness to compare performance, support refinement of the preferred Build alternatives, and document results in formal traffic analysis reports.				
07/20 – Present	H.013284: MRB South GBR: LA 1 to LA 30 Connector, Ascension, East Baton Rouge, Iberville, and West Baton Rouge Parishes, LA (LADOTD, Christina Brignac, Christina.Brignac@la.gov, 225-379-1394): As Mesoscopic Modeling Lead, Vijay led the development of a regional mesoscopic traffic model using Dynameq software to evaluate proposed Mississippi River Bridge concepts under both tolled and non-tolled scenarios. The effort included calibration and validation of the 2019 base-year mesoscopic model, development of the 2042 No-Build scenario, and development of 2042 Build scenarios for 20 bridge				

	alternatives, all of which were reviewed and approved by LADOTD. Model results served as a key evaluation criterion in screening alternatives and selecting the final three concepts advanced into the environmental planning process. Phase 2 of the study, which includes detailed traffic analysis, is currently ongoing.
02/21 – 03/25	H.013897: I-10 & I-12 College Drive Flyover Ramp Design-Build, Baton Rouge, LA (LADOTD, Catherine Mastin, PE, catherine.mastin@la.gov, 225-379-1652): As Mesoscopic Modeling Lead, Vijay led the evaluation of the Transportation Management Plan (TMP) for the proposed College Drive flyover ramp improvements through development of mesoscopic traffic models for each maintenance of traffic (MOT) phase. Using Dynameq-based mesoscopic modeling, he evaluated and compared multiple MOT strategies to assess construction-phase traffic operations. The completed analyses supported identification of effective traffic management strategies to minimize congestion and operational impacts throughout construction.
10/21 – 12/22	College Drive Enhancement Project, Baton Rouge, LA (City of Baton Rouge, Cyndi Pennington, cpennington@brla.gov, 225-389-3246): As Mesoscopic Modeling Lead, Mr. Kunada led the evaluation of multiple on- and off-corridor improvement concepts along and adjacent to College Drive between Perkins Road and I 10. Mesoscopic traffic models were developed and applied to assess individual and combined concepts, enabling comparison of network-level performance across the study area. The analysis identified the concepts, or combinations of concepts, that produced the greatest operational benefits, including reductions in vehicle delay and strategic shifts in traffic volumes to improve overall corridor performance.
01/04 – 12/04	Lafayette Parish Mesoscopic Model, Lafayette, LA (Acadiana Planning Commission, Sara Gary, sgary@planacadiana.org, 337-806-9378): As Engineer II, Mr. Kunada, working for the Lafayette MPO, developed a comprehensive mesoscopic traffic model for the entire Lafayette Parish using TransModeler software. The model was developed for both AM and PM peak periods and incorporated traffic signal timing plans for signalized intersections derived from Synchro models. Intersection control types and geometric characteristics were coded for all remaining intersections throughout the network. The model was calibrated and validated to base year (2000) conditions and future 2030 model was developed. The primary purpose of the model was to identify existing and future bottlenecks within the study area to support the development of a data-driven congestion mitigation strategy. In addition, the model was intended to serve as a centralized traffic data repository to support ongoing planning, operational analyses, and future scenario testing.
07/25 - Present	Shreveport-Bossier (LA) MPO 2050 Metropolitan Transportation Plan and Travel Demand Model Update: As Project Manager, Mr. Kunada is leading the development of a performance-based, multimodal long-range transportation plan, including a comprehensive regional freight component. Responsibilities include overseeing travel demand model development in TransCAD leveraging big data sources, conducting demographic and socioeconomic forecasting, and performing detailed multimodal operational and safety needs analyses. The effort also features a robust public, agency, and stakeholder engagement program to support data-driven decision-making and regional consensus.
08/16 – 10/18	I-10 Mobile River Bridge and Bayway Widening, Mobile, AL: As IMR Lead, oversaw development of IMR from data collection phase through the approval. Tasks included traffic forecast for toll and non-toll options, analysis of the proposed Mobile River Bridge and the widening of the Bayway using Synchro/HCS, as well as the proposed modifications to the interchanges within the study area including Diverging Diamond Interchange (DDI) configurations at three locations, VISSIM modeling for analyzing complex weave conditions and the development of IMR in accordance with ALDOT guidelines and FHWA Policy Points.

Firm employed by: Gulf South Research Corporation 				
Name	Suna Adam		Years of relevant experience with this employer	31
Title	President		Years of relevant experience with other employer(s)	5
Degree(s) / Years / Specialization			B.S. / 1988 / Forestry-Wildlife Management	
Active registration number / state / expiration date			NA	
Year registered	NA	Discipline	NA	
Contract role(s) / brief description of responsibilities			Role on this Project: Quality Control / Quality Assurance Officer	
Ms. Adam is the President and a Senior Biologist at GSRC. As President, Ms. Adam maintains ultimate technical and financial responsibility for all contracts. She, therefore, also has the authority to assign personnel to projects, acquire the equipment or additional personnel necessary to complete a task, and to obtain subcontractors or consultants on an as needed basis. Ms. Adam has served as contract manager on numerous indefinite delivery contracts for various governmental agencies, including LADOTD. Under her leadership, GSRC has grown from one employee in 1994 to 34 full-time professionals, with a contract base providing annual revenues of several million dollars. As Senior Biologist, Ms. Adam has participated in numerous environmental projects including endangered species surveys, wetland delineations, Environmental Assessments (EA), and environmental impact statements (EIS). Ms. Adam has attended various training courses including the NHI Course No. 142005, "National Environmental Policy Act (NEPA) and Transportation Decision Making", a 40-hour Hazardous Waste Training course under 29 CFR 1910.1120 requirements, the U.S. Army Corps of Engineers Regulatory IV Wetland Identification and Delineation course, a U.S. Fish and Wildlife (USFWS) Symposium on the red-cockaded woodpecker (RCW), and a Habitat Evaluation Procedures (HEP) course also sponsored by USFWS.				
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
04/19-Ongoing	General Services Administration (GSA), Contract No. 47QRAA19D006W. Ms. Adam was responsible for preparing the proposal and award for this contract. Ms. Adam maintains the website information required for the contract as well as the supplement of the new task order cost proposals. GSRC has numerous new tasks on this contract, including cultural and natural resources studies.			
09/22-Ongoing	Program Manager. IDIQ Contract for Environmental and Cultural Resources. Contract No. W9123822D017 for USACE Sacramento District. Ms. Adam manages the contractual responsibilities of the contract. She approves cost proposals, QA/QC of deliverables, modifications and any updates required.			
06/22-06/24	Contract Manager. Environmental Assistance in Texas, Louisiana, Mississippi and Arkansas. Contract No. 1064375-0000 for Entergy. Ms. Adam was the contract manager for this contract. She was responsible for delegating the awarded projects, cost proposals, and overall contractual duties required.			
03/99-03/19	General Services Administration (GSA), Contract No. GS-10F-0058K. Ms. Adam was responsible for updating the ebuy website, answering requests for proposals, and the reporting of quarterly sales of this contract. She managed all aspects of this contract, such as annual reporting and maintaining the contractual requirements of the online documentation.			
02/21-07/21	Contract Manager. Retainer Contract for Cultural Resources, (4400014188) LADOTD. GSRC was awarded the Retainer Contract for Cultural Resources. GSRC completed numerous task orders throughout Louisiana, including the Bonita Overpass and the Verot School Road Phase I cultural resources surveys.			

02/17-02/19	Contract Manager. Retainer Contract for Forestry Services, (H.000428) LADOTD. Ms. Adam was responsible for the overall management of the retainer contract. She delegated the staff for the fieldwork required to conduct forest inventories on several private landowners' properties. She also conducted QA/QC on all deliverables submitted to LADOTD.
06/19-06/19	Project Manager. Gopher Tortoise Surveys of the Plains All American Pipeline Right-of-Way, De Soto National Forest, Mississippi. GSRC was contracted to conduct biological surveys for the federally endangered gopher tortoise (<i>Gopherus polyphemus</i>) along a 19-mile-long section of the Plains All American pipeline right-of-way that traverses portions of the De Soto National Forest in Mississippi. GSRC biologists located and marked a total of 48 gopher tortoise burrows during the survey.
11/07-08/13	Program Manager. Environmental Impact Statement, Interstate 69 (I-69) Corridor, Shreveport, Louisiana, LADOTD. Ms. Adam coordinated the assignments for the wetland surveys, archaeological surveys, and meetings required for this EIS. GSRC was contracted to conduct all wetland delineations and reporting, as well as the cultural resources surveys required for this project. A Biological Assessment (BA) was also completed and approved by the USFWS for the red-cockaded woodpecker. GSRC attended and assisted in the Public Meetings held in Shreveport.
01/01-11/03	Program Manager. Environmental Impact Statement, North-South Expressway (I-49), Shreveport to the Arkansas State Line, LADOTD. Ms. Adam was the Program Manager for this project. Ms. Adam assisted in the technical review and data collection for preliminary stages of this 42-mile corridor study. The primary tasks for GSRC were the cultural resources surveys for all alternatives proposed. A wetlands delineation and standing structures survey and report were also completed for this study. In addition, Ms. Adam assisted in preliminary report preparation and review of all documents submitted.
02/02-10/04	Project Manager. Environmental Inventory for the Proposed Louisiana Highway 117 Project, LADOTD. Ms. Adam was responsible for all coordination, data collection, and field reconnaissance required to complete this project for LADOTD. This project consisted of utilizing all existing information and field verification. These results were incorporated into an environmental inventory report, which included the potential impacts on protected species, scenic streams, and wetland areas.
01/01-10/02	Project Manager. Wetland Delineation of Chalmette-Algiers Mississippi River Bridge, Plaquemine, St. Bernard and Orleans Parishes, LADOTD. Ms. Adam participated in field investigations, data collection, coordination, and report preparation for the corridor study. GSRC also attended the public meetings and authored sections of the NEPA document prepared for the project.
11/98-01/99	Project Manager. Wetland Delineation for Rigolets Pass & Approaches, Orleans Parish, LADOTD. Ms. Adam managed project tasks, coordination, data collection, field investigations, and report preparation for the corridor study.
01/99-06/99	Project Manager. Red-cockaded Woodpecker (RCW) Survey of the Weaver Cemetery Bridge Site, Natchitoches Parish, (STP 700-09-0159) LADOTD. Ms. Adam led a field crew to conduct RCW surveys in Natchitoches Parish. A 0.5-mile radius was surveyed in the pine forest adjacent to the Weaver Cemetery Bridge. There were no known RCW cavity trees within the project area and foraging habitat was not present.
09/92-03/93	Project Manager. Biological Assessment for the RCW, LADOTD. Ms. Adam participated in all field surveys for the RCW along US Highway 165 from Jennings, Louisiana to Longleaf, Louisiana. She authored the BA and coordinated with the USFWS during the preparation of the Biological Opinion. She also was involved in the decision to relocate the RCW documented within the proposed project corridor.

Firm employed by: Gulf South Research Corporation 				
Name	Jenifer Davis		Years of relevant experience with this employer	1
Title	Archaeology Field Technician		Years of relevant experience with other employer(s)	1
Degree(s) / Years / Specialization			B.A. / 2023 / Anthropology	
Active registration number / state / expiration date			NA	
Year registered	NA	Discipline	NA	
Contract role(s) / brief description of responsibilities			Role on this Project: Archaeology Field Technician	
Ms. Davis has worked in the southern U.S., particularly the Gulf Coast region, where she has conducted multiple surveys in the field documenting both soil changes and probability of archaeological finds, along with the delineation of any newly discovered or previously recorded sites. Ms. Davis has assisted in managing and performing various field-related tasks and has written company-client reports.				
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
03/24-08/25	Archaeologist/Archaeological Field Technician. Mississippi River Bridge South Cultural Resources Project. Ms. Davis is participating in the ongoing archaeological field survey and is assisting in documenting positive shovel tests by taking photos of diagnostic and nondiagnostic artifacts. She is also assisting the architectural historian in the ongoing aboveground survey identifying and documenting historic built resources and structures older than 45 years that may be affected by the proposed project.			
05/24-06/25	Archaeologist/Technical Preparer. Environmental Compliance Services for the Implementation of the CSCFO. Cultural Resources Evaluations Phase. Ms. Davis is assisting in the cultural resources evaluations Phase of the ongoing project, including writing and preparing cultural resources evaluation memos and conducting extensive background research for each memo.			

Firm employed by: Gulf South Research Corporation				
Name	Allen Fuller		Years of relevant experience with this employer	13
Title	Wetland Biologist		Years of relevant experience with other employer(s)	2
Degree(s) / Years / Specialization			B.S. / 2008 / Plant and Soil Systems	
Active registration number / state / expiration date			Wetland Training Institute Wetland Plant Species Identification	
Year registered	NA	Discipline	NA	
Contract role(s) / brief description of responsibilities			Role on this Project: Wetland Biologist / Delineation	
Mr. Fuller has participated in restoration projects in multiple states for clients including USACE, DoD, and various private companies. Mr. Fuller has conducted numerous wetland delineations and biological surveys. He has also assisted in wetland mitigation banking projects. Mr. Fuller currently manages multiple ongoing restoration projects for government agencies. He has conducted plant propagation, pesticide applications, and implemented various revegetation methods on many species in a variety of settings and has designed and installed irrigation systems for restoration projects in numerous states.				
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
09-Ongoing	Biologist. Wetland Delineations for Private Clients, Louisiana. Mr. Fuller assisted in the field surveys, report preparation, and permitting processes for wetland delineations within several parishes in Louisiana. Field surveys, plant identification, and report preparation were required to be submitted to the USACE for verification of wetland boundaries and permitting of dredge and fill operations for property development.			
02/20-02/21	Biologist. Wetland Delineations for a Proposed Wind Farm in Quitman and Tunica Counties, Mississippi. GSRC was contracted by CSRS to determine the extent of potential jurisdictional Waters of the U.S., including wetlands on approximately 43,000 acres near Tunica, Mississippi. The Area of Interest (AOI) consisted primarily of private agricultural lands interspersed with wooded streams and forested hunting lands. Mr. Fuller served as a field biologist for the wetland delineations, which were conducted both on foot and with the use of ATV's over the course of several months. Threatened and endangered species surveys were conducted concurrently with the wetland delineation surveys.			
09/17-10/18	Field Biologist. Multiple Wetland Delineations of Separate Project Areas for the Joint Readiness Training Center and Fort Johnson, Vernon Parish, Louisiana. GSRC was contracted by the USACE, Fort Worth District, to perform wetland delineations for various construction projects as part of a larger effort to manage newly acquired lands within the jurisdiction of Fort Johnson. These lands contain large expanses of bottomland hardwood that offer potential as future mitigation credit sites. Mr. Fuller has participated in two wetland delineations for separate construction projects that have or will take place on the newly acquired property. The wetland delineation project areas were 18 acres and 87 acres in size and predominantly were located in areas containing upland loblolly pine plantations, mixed hardwood-loblolly pine forests, and bottomland hardwood forests. Mr. Fuller conducted the wetland delineation data collection and mapping and prepared the final summary report.			

Firm employed by: Gulf South Research Corporation 				
Name	Christy Guempel		Years of relevant experience with this employer	6
Title	GIS Analyst		Years of relevant experience with other employer(s)	10
Degree(s) / Years / Specialization			B.S. / 2003 / Geography	
Active registration number / state / expiration date			NA	
Year registered	NA	Discipline	NA	
Contract role(s) / brief description of responsibilities			Role on this Project: GIS Analyst	
Ms. Guempel has over 14 years of professional experience as a geographic information systems (GIS) analyst and 7 years of professional experience as a GIS supervisor/trainer. Ms. Guempel's environmental background includes working on projects involving coastal restoration, cultural resources, emergency response, environmental assessment, environmental remediation, litigation support, planning, permitting, wetland delineations, and wildlife habitat. Her responsibilities include geodatabase design and data entry, coordinate conversion, cartographic design, georeferencing, digitizing, spatial analysis, image interpretation, and supervised classification. Ms. Guempel is proficient in ESRI's suite of software Version 10.6 and below. She has experience with light detection and ranging (LiDAR) analysis using Global Mapper software. She is also experienced with GPS equipment/software, such as ArcGIS Collector, Pathfinder Office, and Terrasync.				
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
07/21-12/22	Senior GIS Analyst. Environmental Support for the Laredo Soft Sided Facility (SSF) in Laredo, Webb County, Texas. GSRC was contracted to conduct a Phase I cultural resources survey of approximately 31 acres in Laredo, Texas. Ms. Guempel georeferenced and digitized previous archeological investigations and surveys within one mile of the survey area. She also georeferenced a series of historical aerials showing the survey boundary. She processed all Trimble GPS data collected in the field. Ms. Guempel created the maps presented in the report.			
10/20-02/22	Senior GIS Analyst. Louisiana Phase I Archaeological Investigation of 54 Acres for the Louisiana Correctional Institute for Women (LCIW) in Iberville Parish, St. Gabriel, Louisiana. GSRC was contracted to conduct a cultural resources survey of 54 acres of land for the proposed construction of the Louisiana Correctional Institute for Women (LCIW) on behalf of Grace Hebert Curtis Architects and U.S. Department of Homeland Security Federal Emergency Management Agency (FEMA), Region VI. Ms. Guempel processed the shovel test pit (STP) GPS data. Following field notes and hand drawn plots, she digitized the STPs for the delineation of the archaeological site found on the property. She georeferenced and digitized the previous archaeological survey and sites conducted within a one-mile buffer of the project area. She created the figures presented in the report.			
04/19-01/21	Senior GIS Analyst. Phase I Cultural Resources Survey of 4,017 Acres for the Bienville National Forest Service, Smith, Newton, and Scott County, Mississippi. GSRC was contracted by the U.S. Forest Service (USFS) to conduct an intensive Phase I cultural resources survey of approximately 4,017 acres in Smith, Newton, and Scott Counties, Mississippi within the Bienville National Forest. Ms. Guempel was responsible for GIS analysis, cartographic design, development of all maps for the report, and supervised the completion of the GIS geodatabase.			
09/18-11/19	Senior GIS Analyst. Phase I Cultural Resources Survey for the Bienville National Forest Service, Scott County, Mississippi. GSRC was contracted by the USFS to conduct an intensive Phase I cultural resources survey of 4,980 acres among 81 units across 21 Compartments within the Bienville National Forest in support of the proposed Timber Sale Project in Scott County, Mississippi.			

	Ms. Guempel provided GIS analysis of the field data, cartographic design, set-up the geodatabase schema, and created all maps presented in the report. She also supervised the completion of the GIS geodatabase deliverable.
09/14-09/19	GIS Analyst. Phase II (Cultural Technical Report) Environmental Planning Support for Rio Grande Valley Remote Video Surveillance System Program Update, U.S. Customs and Border Protection, Rio Grande Sector. CBP. Ms. Guempel created the maps presented in the cultural resources technical report for the archaeological site testing of six archaeological sites discovered during the Phase I cultural resources survey. Along with creating the figures in the report, she also created the trench and test unit profile cross sections by georeferencing and digitizing the hand drawn grid field maps using ArcMap.
03/18-06/18	Senior GIS Analyst. Phase I Cultural Resources Survey of 55 Acres for Proposed Obstruction Removal, Allen Parish Airport, Allen Parish, Louisiana. GSRC personnel conducted a Phase I cultural resources survey of 55 acres for proposed obstruction removal for the Allen Parish Airport in Allen Parish, Louisiana. Ms. Guempel assisted with this project by providing GIS analysis and cartographic design. She mapped the project location, overlaid NRCS soils data, georeferenced the 30 x 60 Geological Quadrangle for the project area, and created maps for the cultural resources survey report.
09/18-10/20	Senior GIS Analyst. Phase I Archaeological survey of 330 acres at the Townsend Bombing Range, McIntosh and Long County, Georgia. GSRC was contracted to conduct a Phase I archaeological survey of approximately 330 acres in McIntosh and Long Counties within the Townsend Bombing Range Area. Ms. Guempel pre-plotted over 1,400 STP points within the survey area to help the Project Director and field crew conduct the field survey. She processed the STP GPS data. Following hand drawn plots, she digitized the STPs for the delineations of potential sites found within the survey area. She georeferenced and digitized the previous archaeological survey and sites conducted within a one-mile buffer of the project area. She created the figures presented in the report.
09/19-10/21	Senior GIS Analyst. Phase I Archaeological survey of 398 acres at the Harvey Point Defense Testing Activity Area, Perquimans County, North Carolina. GSRC was contracted to conduct a Phase I archaeological survey of approximately 398 acres in Perquimans County within the Harvey Point Defense Testing Activity Area. Ms. Guempel processed the Trimble GPS field data collected in the field. She digitized the delineated STPs for the seven sites found within the survey area using the hand-drawn field maps and digitized the proposed new archaeological boundaries for the site. She created the figures presented in the report.
03/22-Ongoing	Senior GIS Analyst. Phase I Cultural Resources Survey of 166 acres for a Proposed Green Fuels Bio-Refinery in Caldwell Parish, Louisiana. GSRC was contracted by Eagle Environmental Services, Inc. to conduct a Phase I archaeological survey near the Port of Columbia, LA in Caldwell Parish. The project survey was approximately 166 acres. Ms. Guempel created pre-plotted STPs to assist with the field survey. She also created an ArcGIS Collector map for the collection data in the field. She georeferenced and digitized all previous investigation archaeological data from the LA archaeology web site within 1 mile of the project area. She processed all GPS field data. She created all figures presented in the report using the field data and hand-drawn delineation field maps.
05/22-10/22	Senior GIS Analyst. Maurice Environmental Analysis: Desktop Cultural Resources Constraints Analysis. Ms. Guempel assisted with this project by mapping the proposed new and replacement powerline poles for Entergy. She georeferenced and digitized the previous archaeological sites and surveys that intersected the project area. She created the figures presented in the findings report.
03/21-Ongoing	Senior GIS Analyst. Eagle Environmental Wetland Delineation, Louisiana. GSRC was contracted by Eagle Environmental Services, Inc. to perform wetland delineations on multiple parcels of land near the Port of Columbia, Louisiana. Ms. Guempel assisted by mapping the field verified wetland data for the Hatten-Car and Little River tracts and created all figures presented in the two reports.

Firm employed by: Gulf South Research Corporation 				
Name	Ross Hackbarth		Years of relevant experience with this employer	6
Title	Wetland Biologist		Years of relevant experience with other employer(s)	1
Degree(s) / Years / Specialization			B.A. / 2014 / Botany	
Active registration number / state / expiration date			Wetland Training Institute – Wetland Delineation Training 2017	
Year registered	NA	Discipline	NA	
Contract role(s) / brief description of responsibilities			Role on this Project: Wetland Biologist / NEPA	
Ross Hackbarth is an ecologist specializing in vegetation assessments, wetland delineations, and floral inventories. Mr. Hackbarth has 5 years of experience in habitat analyses, ecological restoration, and NEPA documentation for numerous projects throughout the southern U.S. Mr. Hackbarth has provided assistance in the development of NEPA documents including EAs. He has performed field surveys for threatened and endangered species and habitat management planning for invasive species, including mapping seeds collection sites for re-plantings. Additionally, Mr. Hackbarth has experience in native plant nursery and greenhouse operations, wildlife surveys, nationwide permitting, and construction monitoring standards and regulations.				
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
09/20-09/23	Biologist. Environmental Assessment for Facility Enhancements and Land Use Modification Projects at Columbus Air Force Base, Mississippi. GSRC was contracted by USACE, Mobile District, to complete an EA and supporting environmental studies for proposed construction, demolition, and land use modification actions at Columbus Air Force Base in Lowndes County, Mississippi. The proposed projects were the replacement and construction of a physical fitness center, replacement and construction of a water storage tank, and permanent placement of fill material into and onto the water bottom of a man-made lake. Mr. Hackbarth served as a technical preparer for sections of the EA and provided quality assurance for supporting documents including a biological resources report and environmental baseline study. Additionally, Mr. Hackbarth served as a GIS analyst and assisted with map creation for the various documents required under the contract.			
09/19-10/21	Field Biologist. Rare, Threatened, and Endangered Species, Bird, and Invasive Plant Inventory at Naval Construction Battalion Center Western Maneuver Area, Hancock County, Mississippi. Naval Facilities Engineering Systems Command Southeast (NAVFAC SE) contracted JESCO Environmental and Geotechnical Services, Inc. and GSRC to conduct an inventory of rare, threatened, and endangered species, birds, and invasive plants on approximately 1,477 acres of land newly acquired by the U.S. Navy at the Naval Construction Battalion Western Maneuver Area (NCBC WMA) in Hancock County, Mississippi. Knowledge of the site occupancy and seasonal use of the survey area by these species supports the long-term sustainment and planning of NCBC WMA actions. Mr. Hackbarth participated in fall field surveys, which included live trapping (e.g., hoop nets, cover boards, trash can traps), bird point count stations, and pedestrian transects. One species documented in 2019 during point-count surveys, the little blue heron (<i>Egretta caerulea</i>), is considered a Tier II species of concern in the state of Mississippi.			
02/20-02/21	Field Biologist. Wetland Delineations for a Proposed Wind Farm in Quitman and Tunica Counties, Mississippi. GSRC was contracted by CSRS to determine the extent of potential jurisdictional Waters of the U.S., including wetlands on approximately 43,000 acres near Tunica, Mississippi. The survey area consisted of primarily private agricultural lands interspersed with wooded streams and forested hunting lands. Mr. Hackbarth served as a field biologist for the wetland delineations, which were conducted			

	both on foot and with the use of ATVs over the course of several months. Threatened and endangered species surveys were conducted concurrently with the wetland delineation surveys.
09/17-10/18	Field Biologist. Wetland Delineations, Stream Biomonitoring Support, and Vital Rate Support for Fort Johnson, Vernon Parish, Louisiana. GSRC was contracted by the USACE, Fort Worth District, to provide various environmental services at Fort Polk, including stream biomonitoring. Stream fish assemblages and macro-invertebrate surveys are used at Fort Polk to monitor water quality and assess potential effects of training activities on aquatic ecosystem health. GSRC assisted with studies to quantify the relative health of a limited number of streams on Fort Johnson in primary training lands. These studies can be used to address questions regarding potential training effects that may arise during NEPA analyses. Mr. Hackbarth took part in the stream biomonitoring of six Fort Johnson streams, which included: 1) electroshocking to collect fish samples; 2) scoop net sampling for macroinvertebrates; and 3) a qualitative analysis of stream appearance, structure, and condition.
02/19-10/19	Field Biologist. Wetland Delineation for the East Jackson County Wastewater Treatment Plant, Jackson County, Mississippi. GSRC was contracted by Arcadis, on behalf of the East Jackson County Wastewater Treatment Plant, to perform a wetland delineation on a proposed pipeline ROW and adjoining parcel of land encompassing a total area of 203 acres. Habitat within the project area included pine and mixed pine-hardwood forests, bottomland hardwood forest, and periodically maintained pipeline and powerline ROWs. Mr. Hackbarth served as a biologist during all field survey activities. The project area was found to contain approximately 166 acres of potentially jurisdictional wetlands and 16,534 linear feet (3.13 miles) of potential jurisdictional Waters of the U.S.
01/19-11/19	Field Biologist. Biological Resources Survey and Wetlands Delineation for the Rio Grande Valley 50-Mile New Wall Construction Project, Starr and Hidalgo Counties, Texas. 2019. CBP contracted GSRC to provide environmental planning support for the proposed construction of approximately 50 miles of new border wall. Mr. Hackbarth served as a biologist for all natural resources survey activities including threatened and endangered species surveys, comprehensive floral and faunal documentation, and wetlands delineations. GSRC biologists conducted meandering pedestrian transects through the 200-foot-wide project corridor. Species lists were recorded for distinct vegetation communities. Threatened or endangered species observed included Zapata bladderpod (<i>Physaria thamnophila</i>), Texas tortoise (<i>Gopherus berlandieri</i>), and Texas horned lizard (<i>Phrynosoma cornutum</i>). Wetland delineations were conducted in accordance with the <i>Technical Report Y-87-1, Corps of Engineers Wetlands Delineation Manual</i> and the <i>2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region</i>
04/18-09/18	Technical Preparer. Preparation of Clean Water Act Section 404 Nationwide Permit Pre-Construction Notification for RGV-WSL-South Road and RGV-FTB-Gallinas RVSS Tower Locations, Texas. GSRC was contracted by CBP to prepare separate Clean Water Act (CWA) Section 404 permit applications for the alteration of jurisdictional wetlands from planned construction activities. CBP proposed to construct approximately 72 new Remote Video Surveillance System (RVSS) towers in its RGV sector and two of these tower locations were previously identified as occurring in areas delineated as potentially jurisdictional wetlands. CWA Section 404 permits must be submitted to the proper USACE district in order to construct within these areas. Mr. Hackbarth authored the two permit applications that were submitted in order to obtain a Nationwide Permit 39. The tower sites were designed in a manner that prevented having to conduct off-site mitigation for the proposed tower construction locations.

Firm employed by: Gulf South Research Corporation 				
Name	Mark Hathorn		Years of relevant experience with this employer	3
Title	Archaeological Technician		Years of relevant experience with other employer(s)	3
Degree(s) / Years / Specialization			B.A. / 2017 / Anthropology	
Active registration number / state / expiration date			Registered Archaeologist	
Year registered	2020	Discipline	Registered Archaeologist	
Contract role(s) / brief description of responsibilities			Role on this Project: Crew Chief / Field Technician	
Mr. Hathorn's professional experience as a field technician and as a crew chief includes cultural resources management projects servicing State Parks and National Forests, site damage assessment and mitigation projects, surveying for roadway maintenance projects, and surveying land for the U.S. Military. Projects include large-scale Phase I cultural resources surveys in Tombigbee, Holly Springs, Bienville, Desoto, and Homochitto National Forests in Mississippi, in south Texas along the Rio Grande, and Ocala and Osceola National Forests in Florida. Phase I cultural resources surveys of parcels in Ascension and Iberville Parishes, Louisiana for proposed new construction projects, and surveys for Harvey Point Base in North Carolina, and Townsend Bombing Range in Georgia, as well as land surveys for the U.S. Government in upstate New York. He has been involved in Phase II archaeological site testing investigations for the Alabama Army National Guard, and in the city of New Orleans at Iberville, as well as Phase II archaeological site testing in Starr County, Texas.				
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
04/22-Ongoing	Archaeologist/Archaeological Field Technician. Phase I Archaeological Survey of 130 Acres for the Cadillac Heights Levee, Dallas County, Texas. Mr. Hathorn served as an archaeological field technician for a Phase I cultural resources survey to identify cultural resources that may be impacted by the proposed Cadillac Heights Levee within the Dallas Floodway Extension within the upper Trinity River Watershed, along the Trinity River. Systematic shovel testing and pedestrian surveys were carried out for this project. Mr. Hathorn also conducted and compiled research for the cultural resources survey technical report and co-authored the built environment historic context.			
05/22-Ongoing	Archaeological Field Technician. Phase I Cultural Resources Survey in Caldwell Parish, Louisiana. Mr. Hathorn served as an archaeological field technician and contributed to the final report of a Phase I cultural resources survey to identify cultural resources that may be impacted by the proposed construction and operation of a new Louisiana Green Fuels Bio-Refinery near the Port of Columbia, Louisiana. The field surveys included systematic shovel testing and pedestrian surveys.			
01/22-05/22	Archaeological Field Technician. Phase I Cultural Resources Survey of 1 Acre for the Ursula Parking Lot Land Purchase in McAllen, Hidalgo County, Texas. Mr. Hathorn served as an archaeological field technician for the cultural resources survey of approximately 1 acre in McAllen, Texas. The survey was conducted on behalf of CBP for the proposed development of a parking lot to accommodate the existing and adjacent McAllen Centralized Processing Center (CPC). A pedestrian walkover utilizing 5-meter intervals and the excavation of 2 shovel test pits were carried out during this survey. No cultural materials were recovered.			
10/20-02/22	Archaeological Field Technician. Phase I Archaeological Investigations of 54 Acres for the Louisiana Correctional Institute for Women (LCIW) in Iberville Parish, St. Gabriel, Louisiana. Mr. Hathorn was involved in a Phase I cultural resources survey with			

	GSRC. He conducted shovel testing and a pedestrian survey and assisted the field director with data collection and day to day operations. Mr. Hathorn also assisted with artifact analysis, as well as cataloging and photographing recovered artifacts.
10/20	Archaeological Field Technician. Phase I Archaeological Investigation of .55 Acres for the Proposed Retaining Wall, Ascension Parish, Louisiana. Mr. Hathorn was involved in a Phase I cultural resources survey with GSRC. He conducted shovel testing and a pedestrian survey. The objective of this investigation was to determine the presence/absence of archaeological resources across the survey area. A total of 9 shovel test pits were excavated. No new sites were recorded within the project area and one previously discovered recorded site (16AN15) was updated.
01/20-10/20	Archaeological Field Technician. Phase I Cultural Resources Survey for the Desoto National Forest, Wayne County, Mississippi. Mr. Hathorn was involved in a Phase I cultural resources survey with Wiregrass Archaeological Consulting. He conducted shovel testing, artifact recovery, and led site boundary delineations. He repaired field gear when necessary and assisted the field director with day-to-day operations and data recovery.
07/19-01/21	Crew Chief/Archaeological Field Technician. Phase I Cultural Resources Survey for the Bienville National Forest Service, Smith, Newton, and Scott County, Mississippi. Mr. Hathorn served as a crew chief with GSRC for a Phase I cultural resources survey. Leading crews in the field, he assisted the field director in day-to-day operations and data collection efforts. He participated in shovel testing, artifact recovery, and conducted site boundary delineations. Mr. Hathorn assisted in the analysis of historical materials as well as contributing to the cultural resources survey report.
05/20-Ongoing	Crew Chief/Archaeological Field Technician. Intensive Cultural Resources Survey of 16.7 miles for the proposed construction and maintenance of Border Barrier and Associated Infrastructure U.S Border Patrol, Laredo Sector, Webb County, Texas. Mr. Hathorn served as a crew chief with GSRC for a Phase I cultural resources survey. Leading crews in the field, he assisted the field director in day-to-day operations and data collection efforts. He participated in shovel testing, artifact recovery, and conducted site boundary delineations. Mr. Hathorn assisted in the analysis of historical materials, conducted background research, and prepared sections for the cultural resources survey technical report.
10/20-5/21	Curatorial Assistant. Artifact Curation for Testing and Data Recovery for clearing and grubbing of 302 acres at England Airpark, Alexandria, Louisiana. Mr. Hathorn assisted the archaeological laboratory director in preparing artifacts and associated documents for curation at the State of Louisiana curation facility in Baton Rouge, Louisiana. This includes properly bagging and labeling artifacts to repository standards, preparing curation boxes, organizing associated documents, as well as photo documenting culled artifacts and cultural materials that are included in the deliverables for curation.
04/20-10/22	Archaeological Field Technician. Phase I Archaeological Investigation of the Greenfield development on Robert Brothers' farm in St. John the Baptist Parish, Louisiana. Mr. Hathorn was involved in a Phase I cultural resources survey. He conducted shovel testing, a pedestrian survey, and assisted the field director with data recovery and day to day operations. Mr. Hathorn also assisted in artifact processing and analysis. GSRC was contracted to survey additional acreage to address a revised layout of the original project area resulting in an Addendum to the initial Phase I Archaeological investigation. Mr. Hathorn assisted with the preparation of the public version of the Phase I Archaeological investigation technical addendum report.

Firm employed by: Gulf South Research Corporation 				
Name	John Lindemuth		Years of relevant experience with this employer	29
Title	Principal Investigator / Archaeologist		Years of relevant experience with other employer(s)	2
Degree(s) / Years / Specialization		M.A. / 1994 / Anthropology B.A. / 1990 / Anthropology / Sociology		
Active registration number / state / expiration date		NA		
Year registered	NA	Discipline	NA	
Contract role(s) / brief description of responsibilities		Role on this Project: Archaeologist		
Mr. Lindemuth has 23 years of experience in cultural resource management. He has participated in and supervised intensive cultural resources surveys, National Register of Historic Places (NRHP) Eligibility archaeological site testing, and data recovery excavations in nine states. He has experience in both prehistoric and historic site evaluation and excavation. He has analyzed both historic and prehistoric cultural remains for several different projects. Mr. Lindemuth's experience working with governmental agencies at the local, state, and Federal levels has given him a broad knowledge of compliance with Section 106 of the National Historic Preservation Act (NHPA). Mr. Lindemuth has supervised and participated in chain of title search for historic properties, cultural resources surveys (Phase I), archaeological site testing (Phase II), and data recovery (Phase III). Mr. Lindemuth has also prepared technical reports, which outlined the results of all phases of archaeological investigations as well as agreement documents, such as Memorandums of Agreement (MOAs) and Programmatic Agreements (PAs), and preparation of Section 106 Adverse Effects documentation. Mr. Lindemuth is also familiar with the preparation of artifacts and associated records for permanent curation in accordance with curation guidelines, including those published by the Louisiana Division of Archaeology. Mr. Lindemuth is very familiar with conducting Section (4f) evaluations for LADOTD and Federal Highway Administration when highway improvements have the potential to affect public parks and recreational areas, waterfowl and wildlife refuges, and historic sites.				
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
08/18-05/20	Principal Investigator. Cultural Resources Survey of 12.01 Linear Miles and 20 Grading and Construction Easements for the Proposed Rio Grande City Road Improvement Project, Rio Grande City, Texas, Rio Grande Valley Sector, U.S. Customs and Border Protection, Department of Homeland Security, Starr County, Texas. Mr. Lindemuth served as Principal Investigator for the intensive cultural resources survey of 12.01 linear miles of road construction and improvement corridor totaling 57.4 acres. The survey included a pedestrian walkover and excavation of STPs. The survey identified 14 new archaeological sites, revisited and updated two previously identified archaeological sites, and recorded 12 isolated occurrences. Four of the 16 archaeological sites recorded or updated during the survey were recommended for additional testing to determine their eligibility for the NRHP. Mr. Lindemuth directed crews in the field, co-authored the cultural resources technical report, and integrated the findings in the associated NEPA documentation for the project.			
12/13-12/14	Principal Investigator. Phase I Cultural Resources Survey for the Proposed England Airpark Clearing and Grubbing for Wildlife Hazards Control. Mr. Lindemuth served as the principal investigator for the cultural resources survey of 53 acres for proposed clearing and grubbing. Two archaeological sites, two standing structures, and two isolated finds were recorded during the surveys. None of the sites, standing structures, or isolated finds were recommended eligible for the NRHP. Mr. Lindemuth wrote the technical report outlining the results of the study and also integrated the results into the EA, which was prepared for the project in compliance with the NEPA.			
04/14-10/17	Principal Investigator. Archaeological Phase II Testing and Phase III Mitigation and Data Recovery at Two Cultural Resources Sites, The McNutt Plantation (16RA692) and the Weil Property (16RA703), for England Economic and Industrial Development District,			

	Alexandria, Louisiana. Mr. Lindemuth served as the principal investigator for the combined Phase II NRHP archaeological site testing and Phase III data recovery excavations for two historic sites located in Rapides Parish, Louisiana. Mr. Lindemuth aided in the development of the Research Design and Work Plan, culling agreement, the management summaries for both the Phase II and Phase III work, the Memorandum of Agreement to address the adverse impacts on the sites, and the combined Phase II and III technical report. The project recovered over 3,000 artifacts dating from the middle nineteenth to twentieth century found in association with multiple features including foundation piers and a belowground cistern. The production of the management summaries allowed for the expedited review of the project so that it could proceed while the final cultural resources report was completed.
07/07-01/16	Principal Investigator. Phase I Survey of the proposed I-69 Corridor, Caddo and Bossier Parishes, Louisiana. Mr. Lindemuth served as principal investigator and supervised the field investigations during the Phase I cultural resources survey . The project consisted of multiple phases of data collection that were analyzed using GIS and used for the planning of the project corridor. The sources of data included known archaeological sites, known historic standing structures, geomorphology of the area, high- and low-probability zones developed by the principal investigator, the geomorphologist, and field director, and the results of a standing structure survey of a preferred corridor. Phase I intensive cultural resources surveys were conducted on the alignment selected using these criteria. Mr. Lindemuth directed the field investigations and was the <u>primary author of the cultural resources survey report, which outlined the results of the surveys.</u>
09/22-Ongoing	Project Archaeologist. Class III Cultural Resources Survey of 12-Acres for the Proposed Three Points Border Patrol Station Expansion, U.S. Border Patrol Tucson Sector, Pima, County, Arizona (Arizona Department of Transportation Project Number: H08801R, Agreement CRA-3308-1), CBP. Mr. Lindemuth served as project archaeologist for the cultural resources inventory of 12 acres for the proposed expansion of the U.S. Border Patrol Station located in Three Points, Arizona. The project was conducted in association with SWCA Environmental Consultations under their permit for Arizona State Land. Nine isolated occurrences were noted during the surveys, none of which were recommended eligible for the National Register of Historic Places. Mr. Lindemuth coordinated the fieldwork with personnel from both companies and prepared the Arizona State Historic Preservation Office Survey Report Summary Form under the direction of the principal investigator for the project.
03/22-02/23	Project Archaeologist. Class I Inventory for Six Proposed Bore Hole Locations at Kartchner Caverns State Park, Cochise County, Arizona. Mr. Lindemuth served as principal investigator for a Class I Inventory of proposed bore hole locations in support of a new wastewater treatment facility at Kartchner Caverns State Park. The Class I Inventory included a review of the records in the online AZSITE database as well as a virtual records check of the records houses at ARO. The Class I inventory showed the areas for the proposed improvements and bore hole locations were surveyed over 10 years ago and were not done to today's standards. In addition, two previously recorded archaeological sites were found associated with two of the bore hole locations. Given the results of the Class I inventory, it was recommended that the area be subject to a Class III intensive archaeological survey and the two previously recorded archaeological sites be relocated and updated. Mr. Lindemuth <u>prepared the Class I Inventory letter report outlining the results of the record search and his recommendations.</u>
06/21-10/22	Project Archaeologist. EA for Hurlburt Field Access Gates Reconstruction, Hurlburt Field, Florida. Mr. Lindemuth served as project archaeologist and subject matter expert for the preparation of the cultural resources section for an EA to address potential effects from the reconstruction of five access gates and the reconstruction of a commercial vehicle inspection gate at Hurlburt field. Mr. Lindemuth utilized existing data, including the Integrated Cultural Resources Management Plan (ICRMP) to assess the potential impacts to cultural resources from the reconstruction of the gates. Mr. Lindemuth prepared the cultural resources section that assesses the potential effects of the alternatives, which will be integrated into the EA for the project.

Firm employed by: Gulf South Research Corporation 				
Name	Anna Marcum		Years of relevant experience with this employer	.06
Title	Architectural Historian		Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization			M.S./2018/Preservation Studies; B.A./2013/ Art History	
Active registration number / state / expiration date			NA	
Year registered	NA	Discipline	NA	
Contract role(s) / brief description of responsibilities			Role on this Project: Architectural Historian	
Ms. Marcum will be the Architectural Historian for this contract. She has over 7 years of experience in historic preservation and architectural history. She has conducted fieldwork and research in multiple states including Louisiana. She is experienced in Section 106 compliance evaluations and preservation planning.				
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
01/18-Ongoing	Principal Investigator. Cultural Resource Assessments and Preservation Consultation Services, Multiple Projects. Ms. Marcum has served as Principal Investigator for numerous cultural resource assessment projects including Section 106 compliance evaluations for federal undertakings, National Register eligibility evaluations, and historic structure reports. Notable projects include work with Workforce Group providing architectural historian expertise for government contract compliance, collaboration with McNair Historic Preservation conducting architectural research and updating National Register nominations, and consultation services for Hammond Historic District Commission developing preservation education materials and regulatory guidance. Ms. Marcum has produced technical reports, preservation briefs, and educational materials while maintaining compliance with federal and state preservation standards.			
02/24-02/25	Senior Director of Preservation. Countywide Historic Preservation Program Management and Community Engagement Initiative. Heritage Foundation of Williamson County. Ms. Marcum served as Senior Director leading comprehensive historic preservation initiatives for Williamson County, Tennessee. The program included development and execution of the Preserve Williamson Campaign featuring community town halls, media outreach, and educational programming reaching over 5,000 county residents. Ms. Marcum established the county's first historic preservation easement program, securing legal protection for key landmarks and historic properties. She managed consultant teams producing countywide architectural surveys documenting over 200 historic structures, curatorial programs, and preservation planning reports. Ms. Marcum coordinated with the National Trust for Historic Preservation, Tennessee State Historic Preservation Office, and local regulatory agencies to align preservation initiatives with state and federal standards.			
04/23-/2/24	Executive Director. Upper East Side Historic Districts Advocacy and Preservation Program. Friends of the Upper East Side Historic Districts. Ms. Marcum served as Executive Director managing preservation advocacy for Manhattan's Upper East Side historic districts encompassing over 1,000 contributing structures. The program included review and advocacy for landmark and land use policies, coordination with New York City Landmarks Preservation Commission, and community engagement initiatives reaching local stakeholders and property owners. Ms. Marcum directed fundraising campaigns including grant writing, membership development, and annual benefit events generating \$200,000+ in preservation funding. She coordinated educational			

	programming including walking tours documenting architectural significance, research symposia, and preservation award ceremonies while managing organizational operations and staff coordination.
07/21-04/23	Director of Research and Preservation. Greenwich Village Historic Building Documentation and Advocacy Program. Village Preservation (GVSHP). Ms. Marcum served as Director leading research and preservation initiatives for Greenwich Village and surrounding historic neighborhoods. Projects included management of research teams documenting historic buildings, oversight of design reviews for new developments ensuring preservation standards compliance, and preparation of landmark designation applications for the New York City Landmarks Preservation Commission. Ms. Marcum created the organization's landmark applications database, authored evaluation requests for threatened properties, and provided expert testimony at public hearings. She developed educational materials including digital and print resources for property owners and community members, while monitoring building code and landmark violations to protect architectural heritage. Ms. Marcum supervised staff and interns conducting field surveys and archival research while representing the organization at community meetings and preservation advocacy events.
01/17-05/17	Graduate Assistant. Architectural History, Survey, and Inspection, Vieux Carré Historic Property Monitoring and Documentation Program. Ms. Marcum conducted property condition assessments and violation documentation for historic structures within the French Quarter National Historic Landmark District. She prepared official violation notices using LLAMA software with supporting photographic documentation to ensure preservation standards compliance. Ms. Marcum organized and digitized extensive Commission archives including permits, citations, property records, and historical photographs, creating accessible digital databases for ongoing preservation management. The work supported preservation of over 2,800 contributing structures within one of the nation's most significant historic districts.

Firm employed by: Gulf South Research Corporation 				
Name	Howard Nass		Years of relevant experience with this employer	24
Title	Senior Biologist / NEPA		Years of relevant experience with other employer(s)	11
Degree(s) / Years / Specialization			B.S. / 1990 / Forest and Wildlife Management	
Active registration number / state / expiration date			NA	
Year registered	NA	Discipline	NA	
Contract role(s) / brief description of responsibilities			Role on this Project: Senior Biologist / Wetlands/NEPA	
Mr. Nass has over 31 years of experience managing and implementing NEPA and NEPA-related studies for various federal, state, and private entities. He has participated in EAs, BAs, EISs, wetland determinations and delineations, wetland mitigation bank development, water resources permitting, and natural resources projects throughout the U.S. Mr. Nass has managed the completion of over a dozen BAs in various states. Mr. Nass has also taken the NHI Course No. 142005, "National Environmental Policy Act (NEPA) and Transportation Decision Making". Certifications: U.S. Fish and Wildlife Service (USFWS) Interagency Consultation for Endangered Species, 2006; Basic Wetland Delineation Course, Wetland Training Institute, 1992; Nationwide Wetland Permits, Wetland Training Institute, 1997				
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
01/24-Ongoing	Project Manager. EA for Louisiana Green Fuels Bio-Refinery Project, Caldwell Parish, Louisiana. Strategic Biofuels, LLC. GSRC is currently contracted by Strategic Biofuels, LLC. (Strategic) to prepare an EA analyzing the potential effects on the natural and human environment resulting from the construction, operation, and maintenance of a renewable fuels bio-refinery in Caldwell Parish, Louisiana. Strategic is proposing to construct, operate, and maintain the Louisiana Green Fuels (LGF) refinery, a renewable fuels bio-refinery with an ultra-low carbon footprint in northeast Louisiana powered by onsite-generated "green" power that would use forestry residue as a feedstock and include Carbon Capture and Sequestration of the carbon dioxide produced from all processes. The project would also include two approximately 1-mile pipelines, two CO₂ injection wells located offsite, and an approximately 1-mile natural gas pipeline. The majority of the project area is agricultural land used for crop production. Mr. Nass is responsible for the preparation of the EA; oversight of associated studies (wetlands, cultural resources, and biological resources); schedule; budget; and agency, tribal, and public coordination.			
09/20-09/23	Senior Reviewer. EA for Facility Enhancements and Land Use Modification Projects at Columbus Air Force Base (CAFB), Mississippi. USACE Mobile District. Mr. Nass served as the Senior Reviewer for the EA to address the potential effects, beneficial and adverse, resulting from the proposed construction, demolition, and land use modifications of multiple planned actions at CAFB, Mississippi. The 14th Civil Engineer Squadron (CES)/Civil Engineering Environmental Installation (CEIE) plans the replacement and construction of the Physical Fitness Center, replacement and construction of the Water Storage Tank, and the permanent fill in of the Strategic Air Command (SAC) Lake. The Region of Influence of the Proposed Action is the land area within the boundaries of the CAFB. In support of the permanent fill in of the SAC Lake, GSRC staff biologists conducted a biological resources survey of flora and fauna species in the vicinity of the proposed project. CAFB is also planning for the acquisition of 118.2 acres of land abutting the East/South-East property line of CAFB from a private individual to the United States Air Force.			
11/20-09/21	Project Manager. EA for the Construction, Operation, and Maintenance of the New Laredo Air Branch Facility U.S. Border Patrol, Laredo Sector, Texas. U.S Customs and Border Protection, Laredo Sector, Texas. GSRC was contracted by CBP to prepare			

	an EA for a new Air and Marine Operations (AMO) Air Branch Facility at the Laredo International Airport in Laredo, Texas. The current facility is overcrowded and does not meet CBP facility standards. The overcrowded conditions do not provide the safest, most secure working environment for personnel. Currently, the CBP AMO is unable to expand operations or support surge capacity to meet mission requirements at the current facility. The purpose of the project is to alleviate overcrowded conditions and to allow room for current and planned future growth. As a part of the contract, GSRC was responsible for conducting a biological resources survey, cultural resources survey, Waters of the U.S. survey, and preparing a Phase I Environmental Site Assessment on the 13-acre project site. Mr. Nass supervised, directed, and participated in the preparation of the EA and FONSI and associated studies. He was also responsible for all agency, tribal, and public coordination concerning the EA. All functions of the current AMO leased facility at the Laredo Airport would be transferred to the new Air Branch Facility.
02/21-04/23	Project Manager. St. Tammany Parish Wetland Planning Map and Policy. Resilient Development and Management, LLC. GSRC was contracted to develop a wetland planning map for St. Tammany Parish, Louisiana. GSRC developed a color-coded wetland planning map using existing data such as National Wetland Inventory, hydric soils, digital elevation data, drainage data, and field verification surveys. The map was color-coded based on the potential to develop in a specific area and the degree of difficulty obtaining a permit. GSRC also participated in the development of a wetland policy manual for St. Tammany Parish. The purpose of the project was to develop a policy for development resiliency. Mr. Nass supervised and oversaw the development of the color-coded wetland map and wetland policy.
06/13-08/15	Project Manager. Interstate 12 (I-12) to Bush Mitigation Plan, LA 3241, St. Tammany Parish, Louisiana, LADOTC. GSRC was contracted by LA DOTD to prepare a mitigation plan for unavoidable impacts on jurisdictional wetlands associated with the construction of the I-12 to Bush Highway in St. Tammany Parish, Louisiana. The mitigation of unavoidable impacts on jurisdictional wetlands is required by Section 404 of the Clean Water Act (CWA). As part of the contract, GSRC researched the best methods for identifying mitigation measures for projects similar in scale to the I-12 to Bush Highway project. This report provides the methodology used by GSRC to identify the best methods for identifying mitigation measures for projects similar in scale, research findings, and recommended best practices for wetland mitigation. Mr. Nass researched current mitigation practices used by other States' Departments of Transportation to streamline the USACE 404 permitting process and mitigation requirements associated with the approval of a Department of the Army individual permit and to reduce costs and liability. Additionally, GSRC identified numerous potential mitigation providers and assisted LADOTD during the selection and negotiation process. Mr. Nass was responsible for scheduling, budget, project coordination with LADOTD and private mitigation banks and landowners, preparation of all necessary project documents, and negotiating with the selected mitigation bank provider.
10/95-06/96	Project Manager. Wetland Delineation, U.S. 61 From Bains, Louisiana to the Louisiana/Mississippi State Line, LADOTD. Mr. Nass conducted wetland delineations along an approximately 12-mile by 200-foot (290.9 acres) proposed highway expansion corridor from Bains, Louisiana, to the Louisiana/Mississippi State Line. A preliminary investigation using color infrared photography was conducted and potential wetlands were delineated and mapped. Potential wetlands were ground-truthed during a transect survey of the proposed highway expansion corridor. Mr. Nass was responsible for field data collection, delineation of the wetland/non-wetland boundary, mapping, and the preparation of the wetland finding report. A formal jurisdiction determination was received from the USACE (New Orleans District) for the surveyed area. A map indicating wetland boundaries was provided to LADOTD for future planning strategies.

Firm employed by: Gulf South Research Corporation 				
Name	Beau Rapier		Years of relevant experience with this employer	8
Title	Wetland Biologist		Years of relevant experience with other employer(s)	2
Degree(s) / Years / Specialization			B.A. / 2016 / Forestry Wildlife Management and Habitat Conservation M.S. / 2018 / Science in Biology	
Active registration number / state / expiration date			38-Hour USACE Wetland Delineation Training Program	
Year registered	NA	Discipline	NA	
Contract role(s) / brief description of responsibilities			Role on this Project: Wetland Biologist / Threatened and Endangered Species	
Mr. Rapier has 10 years of experience working in 28 states, predominately focused on mammals of conservation concern, but he has also held positions surveying for birds, vegetation, herpetofauna, and parasite/disease dynamics. Mr. Rapier has led field crews to conduct point count surveys for Neotropical migratory birds of conservation priority, as well as identifying and buffering active bird nests in ROWs. In addition, he has aided in reporting cases of white-nose syndrome in Indiana bats, northern long-eared bats, and gray bats in Illinois and Tennessee. Mr. Rapier has managed and performed a range of field-related tasks, wrote NEPA documents, and acquired permitting for various project components.				
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
10/24-Ongoing	Project Manager. Plaquemines Wetland Desktop Survey, Louisiana. GSRC is under contract with Principal Engineering on behalf of the Coastal Protection Restoration Authority to perform a desktop wetland delineation for eight separate project areas. Mr. Rapier will collect data from USFWS, USDA, and FEMA, create and digitize polygons to delineate the perceived jurisdictional wetland/upland boundary, submit findings reports and budgets, and coordinate with multiple teams and stakeholders.			
10/23-Ongoing	Central Wetland Delineation, Louisiana. GSRC is under contract with Forte and Tablada to perform a wetland delineation on an approximately 50-acre parcel of land and 17 separate ditch segments. Mr. Rapier conducted the delineations, prepared the wetland findings report, and submitted findings to the USACE. GSRC has received the Preliminary Jurisdictional Determination, and is assisting the client in determining the next steps to take in the permitting process.			
04/20-11/23	Project Manager. Gopher Tortoise Population Surveys, Mayport Florida. GSRC was contracted by NAFVAC SE to conduct gopher tortoise burrow surveys. Field surveys were conducted in two phases. During the first phase, Mr. Rapier walked parallel transects through suitable gopher tortoise habitat and recorded transects using a Trimble GPS unit. Each burrow observed was photographed, recorded with the GPS unit, and temporarily marked with flagging. Each burrow was then classified by size and noted as active, inactive, or abandoned. During the second phase, Mr. Rapier used a specially designed gopher tortoise burrow camera to verify the presence or absence of gopher tortoise in all burrows over 3 inches in diameter. Mr. Rapier also documented vegetation characteristics at each gopher tortoise survey site and if other animals were utilizing the gopher tortoise burrows. Mr. Rapier handled the preparation and execution of all project deliverables, including data analysis and technical reports.			
09/20-11/23	Project Manager. Eastern Indigo Snake and Gopher Tortoise Surveys, Kings Bay Georgia. GSRC was contracted by NAFVAC SE to conduct surveys for the presence of gopher tortoise and eastern indigo snake at Naval Submarine Base (NSB) Kings Bay in Camden County, Georgia. In total, six drift fence arrays were established in areas that appeared suitable for eastern indigo snakes. Drift arrays were fixed with automatic cameras pointed towards the ground to passively detect animals that traversed the array. For the gopher tortoise burrow surveys, Mr. Rapier walked parallel transects through suitable gopher tortoise habitat and			

	recorded transects using a Trimble GPS unit. Each observed burrow was photographed, recorded with the GPS unit, and temporarily marked with flagging. Burrows were classified by size and noted as active, inactive, or abandoned. Mr. Rapier handled the preparation and execution of all project deliverables, including data analysis and technical reports.
06/21-10/21	Project Manager. Wharton Wetland Delineation, Louisiana. GSRC was contracted by a private landowner to perform a wetland delineation on an approximately 17-acre parcel of land. Mr. Rapier conducted the delineation, wrote the wetland findings report, and submitted the report to the USACE. After receiving the Preliminary Jurisdictional Determination, GSRC aided the client in determining the next steps to take in the permitting process.
04/20-6/20	Project Manager. Morrison Hill Wetland Delineation, Louisiana. Morrison Enterprises LLC. GSRC was contracted by Morrison Enterprises, LLC to perform a wetland delineation on an approximately 9-acre parcel of land. Mr. Rapier conducted the delineation, wrote the wetland findings report, and served as a liaison between the client and the USACE until a Preliminary Jurisdictional Determination was issued.
09/18-09/19	Field Crew Lead. Migratory Bird and Rare and Threatened Species Surveys, Mammal Surveys, Herpetofauna Surveys, Mississippi. GSRC was contracted by NAVFAC SE to survey the Stennis Western Maneuver Area for migratory bird species with a special focus on documenting any federally or state threatened or endangered species that may be present. Mr. Rapier conducted point counts, meandering or opportunistic surveys, and call playback surveys for secretive marsh birds on a quarterly basis to record, to the best extent possible, all bird species on the installation. Mammal surveys consisted of Tomahawk trapping and deploying trail cameras with scent lures. Herpetofauna surveys consisted of deploying cover boards, floating turtle traps, submerged trashcan traps, hoop nets, and glow-stick-baited funnel traps.
02/19-Ongoing	Project Manager. Wetland Delineation for the East Jackson County Wastewater Treatment Plant, Jackson County, Mississippi. GSRC was contracted by Arcadis, on behalf of the East Jackson County Wastewater Treatment Plant, to perform a wetland delineation on a proposed pipeline ROW and adjoining parcel of land encompassing a total area of 203 acres. Habitat within the project area included pine and pine-hardwood forests, bottomland hardwood forest, and periodically maintained pipeline and powerline ROWs. Mr. Rapier served as a biologist during all field surveys, wetland delineations, and Phase 1 ESAs. Mr. Rapier was responsible for project management and preparation of all deliverables.
04/19-08/19	Project Manager. Trimcane Wetland Delineation, Mississippi. Trimcane, LLC. GSRC was contracted by Trimcane, LLC to perform a wetland delineation on an approximately 35-acre parcel of land. Mr. Rapier conducted the delineation, wrote the wetland findings report, and submitted this to the USACE. After receiving the Preliminary Jurisdictional Determination, GSRC aided the client in determining the next steps to take in the permitting process, including an alternatives analysis and Department of the Army Permit.
06/18-09/18	Field Biologist. Preparation of Wetland Jurisdictional Determinations for Four Strategic Petroleum Reserves, Department of Energy, Strategic Petroleum Reserve, Texas and Louisiana. FFPO, LLC. GSRC was contracted by Fluor Federal Petroleum Operations, LLC, to conduct wetland delineation surveys at four separate Strategic Petroleum Reserve (SPR) sites operated by the Department of Energy. These sites have been proposed for maintenance and expansion to existing infrastructure. Mr. Rapier served as a field biologist during wetland delineations conducted at the Bayou Choctaw SPR in Iberville Parish, Louisiana, and the Bryan Mound SPR in Brazoria County, Texas. In addition to determining the presence of potential wetlands and Waters of the U.S., Mr. Rapier was responsible for preparing the final summary reports at Bayou Choctaw.

Firm employed by: Gulf South Research Corporation 				
Name	Bretton Somers, Ph.D.		Years of relevant experience with this employer	16
Title	Principal Investigator / Archaeologist		Years of relevant experience with other employer(s)	2
Degree(s) / Years / Specialization		Ph.D. / 2007 / Geography M.A. / 2004 / Geography B.A. / 1994 / Communications		
Active registration number / state / expiration date		RPA / 2022		
Year registered	2005	Discipline	Registered Professional Archaeologist	
Contract role(s) / brief description of responsibilities		Role on this Project: Archaeologist		
Dr. Somers joined the team at GSRC as an archaeologist in 2007. His 2007 completion of his doctorate provided him with 6 years of experience in archaeological research, fieldwork, and GIS analysis. With GSRC, Dr. Somers has supervised and participated in over 50 cultural resources investigations including Section 106, Section 110, and environmental compliance projects in 19 states. Dr. Somers has also worked outside the U.S. in Belize and Cuba. This involvement has provided a broad base of experience in prehistoric and historic archaeology across several regions of North America, has allowed him the opportunity to work with numerous tribal and government agencies at the local, state, and Federal levels, and has given him a broad knowledge of cultural resources laws and regulations.				
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
03/20-05/20	Project Manager/Principal Investigator. Phase I Archaeological Investigation of the St. Rose to Norco Pipeline, St. Charles Parish, Louisiana. Dr. Somers served as project manager and principal investigator for the intensive Phase I cultural resources survey of 7.4 miles (75.14 acres) of proposed new pipeline from the International Matex Tank Terminal (IMTT) in St. Rose to portions of Shell’s Norco Manufacturing Complex facility in Norco in St. Charles Parish, Louisiana. GSRC conducted the investigation on behalf of Ramboll US Corporation (Ramboll) under Section 106 of the NHPA. The investigation included an intensive Phase I archaeological survey combining pedestrian surface inspection with STPs excavated along transects using a high probability predictive model. No archaeological sites were recorded during this investigation. No aboveground/built resources over 50 years of age were recorded within or adjacent to the survey area. As a result, no further archaeological investigations were recommended for the project area.			
02/13-12/13	Principal Investigator. Cambridge Energy Floating Liquefied Natural Gas (FLNG) Facility, Plaquemines Parish, Louisiana. Cambridge Energy, LLC is proposing the construction and operation of a FLNG facility on the Mississippi River in Plaquemines Parish, Louisiana. Cambridge Energy contracted GSRC for the preparation of resource reports with sufficient information and analysis for the preparation of an EIS. The selected area of potential effect (APE) includes dredging from the navigation channel of the Mississippi River into the batture and natural levee on the east bank of the river across from Venice, Louisiana. A portion of the facility extends eastward into the coastal marsh. The cultural resources portion of the investigation involved a terrestrial survey of the high ground portions of the APE, a fan boat inspection of the marsh portion of the APE, and a marine remote sensing survey of the proposed area of dredge activity in the Mississippi River channel. Dr. Somers was responsible for coordination with the Louisiana SHPO, background research, assessing required research needs given the fluvial, terrestrial, and marsh landscape, conducting the terrestrial and marsh fieldwork, coordinating with a team of marine archaeologists to perform the marine remote sensing survey, and synthesizing all data collected into the required reports for the project. No cultural resources were discovered in the initial field surveys of the APE.			

08/10-11/12	Principal Investigator. Phase I Cultural Resources Survey for the Proposed Improvements to the New Orleans to Venice Levee Protection Project, Plaquemines Parish, Louisiana, USACE, Vicksburg District. Dr. Somers served as the principal investigator for the Phase I cultural resources survey of approximately 4,208 acres distributed along linear corridors flanking 86.8 miles of the Federal Mississippi River Levee and back levees in lower Plaquemines Parish, Louisiana. The project included restoring, armoring, and accelerated completion of the existing Federal levees on the east bank from Phoenix to Bohemia (15.8 miles of back levee) and on the west bank from St. Jude to Venice (37 miles of back levee and 34 miles of Mississippi River levee) to provide the authorized design grade for storm risk reduction. The project APE included Mississippi River Batture, which is the protected land between the levees and coastal marsh on the outside of the back levees. The investigation resulted in the recovery of several thousand artifacts and the recording of 43 newly discovered Historic period sites. Of the 43 newly recorded sites, examination of field data and laboratory analysis of artifacts resulted in recommendation of one site as eligible, 29 sites as ineligible, and 13 sites of undetermined eligibility for the NRHP.
09/13-03/17	Project Manager/Principal Investigator. Naval Air Station (NAS) Meridian Phase II Archaeological Evaluation of Sites 22LD693 and 22LD697, Lauderdale County, Mississippi. Dr. Somers provided overall administrative oversight for the project, including scheduling; cost management; recruiting, hiring, and supervising necessary personnel; and coordinating with the NAVFAC SE Technical Representative and Cultural Resource Manager at NAS Meridian. Additionally, Dr. Somers served as Principal Investigator, developing the work plan for the investigation, supervising, and participating in fieldwork, and preparing the technical report and Powerpoint™ presentation. This project was conducted under Section 110 of the NHPA of 1966, and with its implementing regulations (16 United States Code [U.S.C.] 470h-2[a]). The investigation included an archaeological survey with shovel testing along transects within an area of 2.7 acres for site 22LD693 and 3.66 acres for site 22LD697 to relocate and delineate the boundaries of the sites. Once the sites were relocated, additional shovel testing was conducted to further define the horizontal and vertical site boundaries and to determine concentration areas of cultural material. Test units measuring 1 meter (m) by 1 m wide and 1 m below ground surface were excavated at each site. This investigation revealed that sites 22LD693 and 22LD697 consist of sparse scatters of prehistoric artifacts. As sparse artifact scatters, sites 22LD693 and 22LD697 do not possess the data necessary to determine association with Criteria A, B, or C, but could contribute information pertaining to Criterion D. However, neither site exhibited the potential for cohesive cultural deposits that would indicate a significant cultural presence or activities from which additional information could be obtained. Further, considering the limited nature of findings from this investigation combined with those from the previous investigation of the sites, the information potential for sites 22LD693 and 22LD697 has been exhausted. It was recommended that the NRHP determination for these two sites as not eligible was appropriate and no further work is warranted.
09/18-03/22	Principal Investigator. Highway 86 Checkpoint, California. The investigation was conducted in support of a cooperative effort by USACE, Sacramento District, the Central Valley Flood Protection Board, and the Sacramento Area Flood Control Agency to address seepage and stability issues in approximately 42 miles of levee surrounding the Natomas Basin. The project included multiple tiered tasks including a Kickoff Meeting, Records Search and Literature Review, Geoarchaeological Sensitivity Assessment and Testing Plan, Cultural Resources Survey and development of an Evaluation Plan, development of a Historic Properties Treatment Plan, and Evaluation Testing. Dr. Somers served as project manager and principal investigator for this project and provided overall administrative oversight for the project including scheduling, cost management, supervising necessary personnel and coordinating with the Sacramento District Archaeologist.

Firm employed by: Gulf South Research Corporation 				
Name	Jake Vicknair		Years of relevant experience with this employer	1
Title	Archaeology Field Technician		Years of relevant experience with other employer(s)	1
Degree(s) / Years / Specialization			B.A. / 2023 / Anthropology	
Active registration number / state / expiration date			NA	
Year registered	NA	Discipline	NA	
Contract role(s) / brief description of responsibilities			Role on this Project: Archaeological Field Technician	
Mr. Vicknair has gained proficiency with Phase I cultural resource management survey methods in harsh environments, before having completed Phase I and II work with tribal agencies at the University of Louisiana at Lafayette, and Louisiana State University. Mr. Vicknair earned his B.A. in Anthropology from LSU where he participated in the curation and analysis of historic and prehistoric artifact collections.				
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
03/24-08/25	Archaeological Field Technician. Mississippi River Bridge South Cultural Resources Project. Mr. Vicknair operated as a field technician with GSRC to complete a large-scale Phase I survey in and around the cities of St. Gabriel and Plaquemine in Louisiana on behalf of LADOTD and Development in its planning of another transfluvial bridge. The project included shovel testing down to fifty centimeters, artifact recovery, and the delineation of several historic sites.			

Firm employed by: T. Baker Smith, LLC						
Name	Kenny Belou, PE			Years of relevant experience with this employer	3	
Title	Lead Professional, Transportation Engineering			Years of relevant experience with other employer(s)	17	
Degree(s) / Years / Specialization				Bachelor of Science / 2009 / Civil Engineering		
Active registration number / state / expiration date				PE.38850 / Louisiana / 09.30.2026		
Year registered	2014		Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities				Supervisor - Engineer		
Kenny will serve as the Supervisor Engineer for the roadway design engineering services for this project. Kenny satisfies MPR #8. Kenny Belou, PE is TBS' lead professional for our transportation practice. His duties include overseeing engineering execution for transportation related projects including design activities, report preparation, construction documents, construction administration, and client satisfaction. He has designed projects in accordance with LADOTD's Road Design Manual, Complete Streets Manual, Hydraulics Manual, Bridge Manual, AASHTO's Geometric Design of Highways and Streets, and the LADOTD Standards and Specifications for Roads and Bridges. Kenny also has experience delivering projects through alternative delivery methods including CMAR. Kenny maintains the ATSSA Traffic Control Supervisor (TCS) and Traffic Control Technician (TCT) certifications, and has completed the CPTP SCS Cybersecurity WBT training.						
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).				
04/25 - 02/26		H.016095 LA 70 Rehab: Marguerite St to US 90; LADOTD; St. Mary Parish, LA - Supervisor Engineer/Project Manager. Kenny led DOTD coordination and oversaw project execution for this heavily urban roadway rehabilitation and drainage replacement project. Kenny ensured quality control was maintained throughout the design, performed QA reviews at project submittal milestones, and ensured that plans were delivered in the accelerated timeframe requested by the project manager in order to maintain funding. 100% Final Plans were delivered to LADOTD in February 2026.				
10/22 – 04/23		S.P. No. H.013116, LA 20 Widen: LA 307 – S. Vacherie; LADOTD; St. James & Lafourche Parishes, LA - Engineer of Record (Road) and Project Manager. Kenny was responsible for the asymmetrical widening of 2.7 miles of LA 20 to add 8' shoulders near Vacherie, LA. Project scope included horizontal and vertical geometry, drainage design (subsurface and open ditch), cross section roadway elements, and permanent signing and pavement markings. Provided quality control review of entire plan set ensuring compliance with LADOTD standards and coordination with in-construction state project located within the project limits. Coordinated with LADOTD project manager, LADOTD pavement design section, LADOTD hydraulic section, and subconsultants to ensure project delivery meeting all necessary standards and coordinated with adjacent project. Oversaw the design of required utility relocations required for the roadway project along the corridor as a separate project let through St. James Parish.				
10/22 – 12/22		S.P. No. H.012812, US 190 at Northshore and Camp Villere; LADOTD; St. Tammany Parish, LA - Project Manager. Kenny was responsible for quality control review on plans, design criteria and project calculations for the multi lane roundabout at the intersection of US 190 and Northshore Blvd and a single lane roundabout at the intersection of US 190 and Camp Villere Rd. Responsible for the coordination with subconsultants and LADOTD on the project deliverables. Kenny developed construction sequencing for the complex drainage work and road work required to maintain traffic through the intersection of US 190 and Northshore Blvd.				

03/23 - 02/26	S.P. No. H.001344, US 190: LA 437 to US 190 Bus (Ph. 1); LADOTD; St. Tammany Parish, LA - Project Manager. The project scope includes the design and construction of a new 1,400-foot bridge over the Bogue Falaya River in St. Tammany Parish, LA. The project includes roadway improvements and widening for the approaches to the bridge and intersection improvements to the adjacent LA 437 intersection. The bridge geometry includes both horizontal and vertical curvature and is super-elevated to near 4%. As project manager, Kenny was responsible for contract execution.
11/23 - Ongoing	S.P. No. H.015576, LA 447 & LA 1025: Roundabout; LADOTD; Livingston Parish, LA - Supervisor Engineer/Project Manager. Kenny is the supervisor engineer and project manager for this roundabout project in Livingston Parish, issued as a task order through TBS's master contract for LADOTD Roadway Design Services IDIQ. He is responsible for the quality assurance, quality control, and project delivery for this urban single lane roundabout. 100% Final Plans will be submitted in Q2 2026.
10/24 - 09/25	H.015721 LA 30: Roundabout @ St Elizabeth / S Penn; Ascension Parish, LA - Supervisor Engineer. Kenny is the supervisor engineer for this roundabout project in Ascension Parish, issued as a task order through TBS's master contract for LADOTD Roadway Design Services IDIQ. He is responsible for the quality assurance, quality control, and project delivery for this urban multi-lane roundabout. The project is currently suspended, pending DOTD coordination with local stakeholders
06/23 - 09/25	H.015038.5 I-49: I-10 - St. Landry Parish Line; LADOTD; Lafayette Parish, LA - Supervisor Engineer/Project Manager. Kenny oversaw development for this patch, mill, and overlay project in Lafayette Parish, Louisiana. He was responsible for scoping both survey and roadway design phases. He coordinated with LADOTD staff to ensure delivery in the extremely accelerated schedule.
10/22 - Ongoing	District 08: IJA Off-System Bridge Replacement Program; LADOTD; Central LA - Supervisor Engineer. This project included the replacement of 12 Off System Bridges and their adjacent roadways throughout central Louisiana. The existing bridge lengths range from 40' to 135' and the sites include cross drains, box culverts, and RC slab span bridges. Kenny is the overall project manager and supervisor engineer, responsible for complete contract and schedule execution. He is also responsible for quality control of all design elements including bridge, roadway, and hydraulic design. He works in constant coordination with internal task managers, the LADOTD project manager, District & Area engineers, and sub-consultants to ensure on time and complete deliverables.
01/26 - Ongoing	H.015587 LA 3211 @ Yokley Road Roundabout; LADOTD; St. Mary Parish, LA - Supervisor Engineer/Project Manager. Kenny is responsible for project execution and quality assurance for this single lane roundabout in Franklin, LA. He manages all aspects of project delivery, including client coordination.
10/22 - Ongoing	Contract 44-17598, Contract 44-19336, Rural Bridge Replacement Initiative, Ph I and Ph II (87 bridge structures); LADOTD; Districts 04, 05, 08, 58 - Overall Project Manager. The scope for phases I and I included the replacement of 87 bridges throughout fourteen Parishes in Northern Louisiana. The bridge lengths ranged from 20' to 340'. Kenny is responsible for construction support for Phase I bridge projects and responsible for contract execution for Phase II. He is also responsible for quality control of all design elements including roadway design, hydraulic design, and bridge design. He works in constant coordination with internal task managers, the LADOTD project manager, and subconsultants for this fast-paced project.
04/15 - 02/17	LA 431 at LA 934 Intersection Improvement, H.007855; LADOTD; Ascension Parish, LA - Project Engineer. Kenny served as Project Engineer for this urban intersection improvement project was road widening, addition of left turn lanes on LA 431, addition of right turn lane on LA 934, and new subsurface drainage at intersection. Kenny designed the roadway geometry, subsurface drainage system, cross drain analysis, pavement markings and signing layout, and sequence of construction.

Firm employed by: T. Baker Smith, LLC				
Name	Brant B. Richard, PE		Years of relevant experience with this employer	<1
Title	Market Sector Leader		Years of relevant experience with other employer(s)	38
Degree(s) / Years / Specialization		Bachelor of Science / 1988 / Civil Engineering		
Active registration number / state / expiration date		PE.28567 / Louisiana / 09.30.2027		
Year registered	1999	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities		Engineer		
				
Brant will provide Quality Assurance/Quality Control for roadway design on this project. Brant Richard, PE's extensive professional career that spans over three decades in civil engineering, including specialized projects with the Louisiana Department of Transportation and Development (DOTD), is a testament to his wealth of expertise. His proven history, particularly in DOTD roadway design projects, is a vital qualification for his role as the principal in charge, overseeing every aspect of this pavement preservation project from conception to completion. He can oversee successful project development and has a track record of exceeding expectations regarding quality, integrity, and timeliness of deliverables. Client satisfaction is a key trait to his success, and he strives for the opportunity to prove with every project. His experience spans the design of transportation-related projects, from roadway design to overseeing and mentoring young engineers to managing a team of professional engineers on projects such as this. His comprehensive understanding of all the policies and procedures of DOTD enables him to bring the expertise needed to make this pavement preservation project a success.				
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
01/23 - 04/24	H.002316 C.P. No. 12-CS-HC-0017, Hooper Road (LA 408) Improvements; LADOTD; East Baton Rouge Parish, LA - Project Manager / Senior Engineer. Responsible for providing QA/QC for 90% design set, including minimum construction signing and suggested sequence of construction and the permanent striping and signing. All geometrics are consistent with MOVEBR and are in accordance with DOTD guidelines. The project scope includes the widening of an existing 2-lane roadway to a 4-lane boulevard to increase capacity from Blackwater Road to Joor Road.			
11/16 - 03/17	H.011781.5 LA 675 & LA 87 Improvements; LADOTD; Iberia Parish, LA - Quality Assurance/Quality Control. Responsible for the roadway rehabilitation design and plan preparation for approximately 2.3 miles of urban roadways under a task order from the DOTD Pavement Preservation Retainer Contract. The project scope of work includes pavement widening, milling, asphaltic concrete (AC) overlay of composite pavement, AC patching, sawing and sealing of AC overlay lifts over Composite Pavement, roadway striping, ADA ramps, and the installation of access control safety improvements.			
2/13 - 12/13	H.010297.5 LA 520, Jct. US 79 Widening; LADOTD ; Claiborne Parish, LA - Quality Assurance/Quality Control. Overall responsibility for the roadway rehabilitation design and plan preparation for approximately 6 miles of rural roadways. The scope of work included roadway super elevation design and correction, bridge guardrail design, asphaltic concrete (ac) overlay, ac patching, milling and overlay of the bridges, and roadway striping.			

Firm employed by: T. Baker Smith, LLC				TBS T. BAKER SMITH	
Name	Kelly Radecker, PE		Years of relevant experience with this employer	7	
Title	Lead Engineer, Roads		Years of relevant experience with other employer(s)	5	
Degree(s) / Years / Specialization			Bachelor of Science / 2014 / Civil Engineering		
Active registration number / state / expiration date			PE.30783 / Louisiana / 03.31.2028		
Year registered	2019	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Engineer		
Kelly will serve as a Project Engineer providing roadway design and engineering services on this project. Kelly Radecker, PE is the Lead Roadway Engineer for our Transportation Engineering team. Kelly will serve as the overall road design lead for T. Baker Smith. Prior to joining T. Baker Smith, Kelly gained valuable transportation experience while employed by LADOTD. Kelly is notably experienced in design of roadway widening, roundabouts, drainage, and bridge replacement and reconstruction in accordance with LADOTD's Roadway Design Procedures and Details Manual, LADOTD's Hydraulics Manual, and DOTD plan preparation guidelines. She is very familiar with AASHTO standards and guidelines. Her experience has included project/task management, development of horizontal and vertical geometrics, typical sections, roadway drainage calculations, earthwork design, construction sequencing, Engineering Reasoning and Decision Document for signing plans, development of quantities, and construction cost estimates. She is skilled in development of roadway models and design, hydraulic analysis, and sign design utilizing MicroStation, InRoads, AutoTURN, Torus, HYDRWIN, GeoHECRAS, and SignCAD. She has completed Cybersecurity WBT training and holds the ATSSA Traffic Control Supervisor (TCS) certification					
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
02/20 – 12/22	S.P. No. H.012812, US 190 at Northshore and Camp Villere; LADOTD; St. Tammany Parish, LA - Engineer of Record. Kelly was the Lead Roadway Engineer for the design and plan preparation of an urban multi-lane roundabout at the intersection of US 190 and Northshore Blvd. and an urban single lane roundabout at the intersection of US 190 and Camp Villere. She was responsible for the design of several roadway elements including the H&V alignments, roundabout geometrics, AutoTURN movements, drainage design, typical sections, sequence of construction, pay item compilation, and quantity take-offs. Kelly created design report forms and cost estimates as well as assisted in coordinating the environmental process including the creation of exhibits to be utilized at Public Meetings. She also coordinated with subconsultants and provided quality control of design elements performed by the subconsultant including temporary traffic signal design and roadway striping and signing sheets.				
06/25 - 02/26	H.016095 LA 70 Rehab; Marguerite St to US 90; LADOTD; St. Mary Parish, LA - Project Engineer. Kelly provided an independent review on the subsurface drainage design for urban roadway and drainage replacement project. Kelly coordinated with the engineer of record to ensure that all drainage met LADOTD drainage requirements. She reviewed all project plans and drainage calculations.				
11/23 – Ongoing	S.P. No. H.015576, LA 447 & LA 1025: Roundabout; LADOTD; Livingston Parish, LA - Engineer of Record. Kelly is the Lead Roadway Engineer for the design and plan preparation of an urban single lane roundabout at the intersection of LA 447 and LA 1025. She was responsible for the job planning, including preliminary schematic layouts and defining the project limits. She is responsible for the design of several roadway elements including the H&V alignments, roundabout geometrics, AutoTURN movements, typical sections, sequence of construction, pay item compilation and quantity take-offs. Kelly is responsible for				

	creating design report forms as well as assisting in coordinating the environmental process including the creation of exhibits to be utilized at Public Meetings.
08/20 – Ongoing Ph I 05/21 – Ongoing Ph II	Contract 44-17598, Contract 44-19336, Rural Bridge Replacement Initiative, Ph I and Ph II (87 bridge structures); LADOTD; Districts 04, 05, 08, 58 - Engineer of Record. Kelly is the Lead Engineer for the design and plan production of 19 bridge replacements (5 state projects) throughout Central and North Louisiana. Prior to design, she conducted project site visits, compiled survey field packs and survey request forms, and reviewed topographic survey deliverables. Kelly is responsible for the development of all road and bridge design elements including H&V alignments, bridge hydraulic design, roadway cross sectional elements, guardrail calculations, geometrical layouts, summary sheets and cost estimates. Kelly reviewed and assisted in the submission of all environmental deliverables including wetland delineations. Kelly oversaw the development of all additional project documentation including Design Report Forms, Bridge and Hydraulic Design Criteria, Design Exceptions, and Design Waivers.
12/19 – 06/25	S.P. No. H.014407, LA 621 at Roddy Rd; Ascension Parish Government; Ascension Parish, LA - Engineer of Record. Kelly is the Lead Roadway Engineer for the design and plan preparation of an urban single lane roundabout at the intersection of LA 621 and Roddy Rd. She is responsible for the design of several roadway elements including the H&V alignments, roundabout geometrics, AutoTURN movements, drainage design, typical sections, sequence of construction, pay item compilation and quantity takeoffs. Kelly created design report forms and cost estimates as well as assisted in coordinating the environmental process including the creation of exhibits to be utilized at Public Meetings. She also coordinated with subconsultants and provided quality control of design elements performed by the subconsultant including lighting plans.
07/19 - 01/25	S.P. No. H.001344, US 190: LA 437 - US 190 BUS (PH1); LADOTD; St. Tammany Parish, LA - Engineering Support. Performed roadway design tasks including roadway geometrics, assisted with roadway design QA/QC and plan production as part of an Urban Arterial widening project.
05/19 – 06/21	S.P. No. H.004113, I-12 to Bush: LA 3241: LA 435 to LA 40/41; LADOTD; St. Tammany Parish, LA - Project Engineer. The project scope included the design and construction of approximately 5.5 miles of roadway on virgin terrain consisting of four lanes with inside and outside shoulders and a depressed median. The project also included the coordination of design and construction of a 500' bridge over Talisheek Creek. Kelly provided design support for roadway design and plan production, as well as performed quality control of inroads modeling, provided assistance in quantity take-off calculations, reviewed roadway design plan sheets including Typical Section, Plan & Profile Sheets, and Geometric Layout Sheets, and reviewed permanent signing layout plans (including development of non-standard signs using SignCAD). She also drafted design exceptions and waivers and responded to comments from LADOTD on plan production, as well as performed quality control of R/W Maps to ensure concurrence with Construction Plans.
04/24 - 01/26	S.P. No. H.015554, Loyola Dr: 31st St – W Loyola Resurface; City of Kenner, LA - Engineer of Record. Kelly is the Lead Roadway Engineer for the design and plan preparation of the resurfacing of Loyola Dr, a Pavement Preservation Project through LADOTD's Urban Systems Program. She was responsible for the job planning, coordinating with LADOTD and City of Kenner. She is responsible for the plan production, quantity take-offs, and cost estimation. The project includes mill and overlay of the 0.6 mile portion of Loyola Dr and includes curb ramp replacement and installation of pedestrian crosswalks. She coordinated with the traffic engineering subconsultant for implementation of the results of the traffic study.

Firm employed by: T. Baker Smith, LLC				TBS T. BAKER SMITH	
Name	Brady Smith, PE, PMP		Years of relevant experience with this employer	4	
Title	Senior Project Manager		Years of relevant experience with other employer(s)	6	
Degree(s) / Years / Specialization		Bachelor of Science / 2016 / Civil Engineering			
Active registration number / state / expiration date		PE.45362 / Louisiana / 09.30.2027			
Year registered	2021	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Engineer		
Brady will serve as a Project Engineer providing roadway design and engineering services on this project. Brady Smith, PE, PMP serves as a project manager for projects that include roadway design, spot bridge replacements and hydrologic and hydraulic analysis. He has experience in a wide variety of DOTD projects including roundabouts, interstate ramps, bridge replacements, and roadway widening projects. Brady is experienced in AASHTO and LADOTD's Geometric Design Guidelines as well as Bentley Inroads, Microstation and LADOTD's HYDRWIN programs. He also has experience serving as a Project Engineer for several CE&I projects awarded by LADOTD. Brady has completed CPTP SCS Cybersecurity WBT training as required by LADOTD and is a certified ATSSA Traffic Control Supervisor (TCS).					
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).				
10/24 - Ongoing	H.015721, LA 30: Roundabout @ St Elizabeth/ S Penn; LADOTD; Ascension Parish, LA - Engineer of Record. Brady is the Engineer of Record for the design and plan preparation of an urban multi-lane roundabout at the intersection of LA 30. He was responsible for the job planning, including preliminary schematic layout and defining the project limits. He is responsible for the design of several roadway elements including the H&V alignments, roundabout geometrics, AutoTURN movements, typical sections, sequence of construction, pay item compilation and quantity take-offs. Brady is responsible for creating design report forms as well as assisting in coordinating the environmental process including the creation of exhibits to be utilized at Public Meetings. The project is currently suspended while DOTD coordinates with local stakeholders.				
10/22 – Ongoing	IIJA Off-System Bridge Replacement Program; Contract No. 44-25027; LADOTD; Statewide - Project Manager. Brady is responsible for developing the project schedule, drafting subconsultant contracts, manhour estimation, site visits & reconnaissance, coordination with LADOTD and Parish personnel, coordination with topographic surveyor, hydraulic subconsultant, and geotechnical consultants. Brady is also the lead engineer for the design and plan production of 5 bridge replacements (3 state projects). He is responsible for the development of all road and bridge design elements including H&V alignments, bridge hydraulic design, roadway cross sectional elements, guardrail calculations, geometric layouts, and cost estimates. Brady also oversees the development of all additional project documentation including Design Report Forms, Bridge and Hydraulic Design Criteria, Design Exceptions and Design Waivers.				
10/23 - Ongoing	S.P. No. H.012864, Carmel Drive Sidewalks; Lafayette Consolidated Government; Lafayette Parish, LA - Project Manager/Engineer of Record. Brady is responsible for the design and plan production of 0.7 miles of ADA compliant sidewalks on each side of LA 94 (Carmel Drive) in Lafayette, Louisiana. He is responsible for the development of all design elements including H&V alignments, drainage, sidewalk cross sectional elements, and cost estimates. (Location: LADOTD District 03).				
03/23 – 07/23	S.P. No. H.013116, LA 20 Widen: LA 307 – S. Vacherie; LADOTD; St. James & Lafourche Parishes, LA - Project Engineer. Brady was responsible for managing the final QA/QC review and implementation of review comments of the construction plans for the asymmetrical widening of 2.7 miles of LA 20 to add 8' shoulders near Vacherie, LA. Project scope included horizontal				

	and vertical geometry, drainage design (subsurface and open ditch), cross section roadway elements, and permanent signing and pavement markings.
02/22 – Ongoing	Contract 44-19336, Rural Bridge Replacement Initiative, Ph II (40 bridge structures); LADOTD; Districts 04 & 05 - Engineer of Record. Lead engineer for the design and plan production of 13 bridge replacements (6 state projects) throughout North Louisiana. Responsible for the development of all road and bridge design elements including H&V alignments, bridge hydraulic design, roadway cross sectional elements, guardrail calculations, geometric layouts, and cost estimates. Brady is also responsible for the load rating analysis and report for 6 of the proposed structures and quality control for the other 7 proposed structures. Brady is responsible for reviewing and assisting in the submission of all Environmental deliverables including Wetland Delineations. Brady also oversees the development of all additional project documentation including Design Report Forms, Bridge and Hydraulic Design Criteria, Design Exceptions and Design Waivers.
07/24 - Ongoing	23-EN-HC-0029, Highland Road at Pecue Lane; City of Baton Rouge, East Baton Rouge Parish, LA - Project Manager/Engineer of Record. Brady is responsible for developing the project schedule, drafting subconsultant contracts, manhour estimation, and coordination with various project stakeholders, which include the City Parish's Project Management Team, subconsultants, survey team, and environmental team. Brady has managed the development of the Design Study, which includes a Traffic Design Report, Preliminary Environmental Study, Existing Drainage Map and Existing Right-of-Way Maps. Once an NTP is issued for Final Design, Brady will be the Engineer of Record and responsible for the design and plan production for the proposed roundabout at the intersection of Highland Road and Pecue Lane in Baton Rouge, LA.
11/19 – 11/21	Lake Pontchartrain Causeway Safety Bay Improvements; Greater New Orleans Expressway Commission (GNOEC); Metairie/ Mandeville, LA - CE&I Project Engineer. Brady was responsible for providing construction engineering and inspection services required during the safety bay improvement project, which included fabrication and installation of pre-stressed piles and girders, caps, and bridge decks. He performed the on-site project representation to ensure that all construction activities were being installed according to the design documents and project specifications, which included field monitoring, documentation, preparation of daily reports, participation in construction progress meetings, and construction close out. Scope included bridge widening for 12 segments of the Lake Pontchartrain Causeway.
04/17 – 02/19	S.P. No. H.010124, LA-16: Roundabout @ LA-447; LADOTD; Livingston Parish, LA - Project Engineer. Brady was responsible for roadway full-sized plan preparation, subsurface drainage design, curb and gutter drainage design, roundabout geometric design, construction phasing, temporary traffic control, required right of way determination and cost estimation.

Firm employed by: T. Baker Smith, LLC				
				
Name	Daniel Binet, PE		Years of relevant experience with this employer	13
Title	Lead Engineer, Bridges		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			Bachelor of Science / 2014 / Civil Engineering	
Active registration number / state / expiration date			PE.42997 / Louisiana / 03.31.2027	
Year registered	2018	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities			Engineer	
Daniel will serve as a Project Engineer providing roadway design and engineering services on this project. Daniel Binet, PE is the Lead Engineer, Bridges at TBS with over 13 years of experience in civil and structural engineering. His experience includes project/ task management, roadway design, urban and rural bridge replacement and rehabilitation design, bridge widening, bridge inspection, structural analysis, split phase construction sequencing, hydrologic/hydraulic analysis, construction support, and development of construction quantities and estimates. Daniel is very familiar with the AASHTO LRFD Bridge Design Specifications, AASHTO geometric and roadside design guides, LADOTD Bridge Design & Evaluation Manual, LADOTD plan preparation guidelines, and LRFR bridge rating procedures. He is also experienced in using AASHTO BrR, STAAD Pro V8i, LEAP CONSPAN structural analysis software, AutoCAD, MicroStation, InRoads and CADConform. Daniel is also a certified NBIS Bridge Inspection Team Leader, holds ATSSA Traffic Control Supervisor (TCS) certification, and has completed the CPTP SCS Cybersecurity WBT training				
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).			
09/18 – 02/26	S.P. No. H.001344, US 190: LA 437 to US 190 Bus (Ph 1); LADOTD; St. Tammany Parish, LA - Engineer of Record/Project Engineer. This project serves to design and construct a new westbound bridge over the Bogue Falaya River in St. Tammany Parish, LA. The bridge features horizontal and vertical curvature with super-elevation near 4%. Adjacent roadway sections are also being improved and widened. Daniel performed bridge design tasks including a Bridge Alternative Study; developed Type, Size and Location (TS&L) plans for prestressed concrete (LG) girder spans and curved steel plate spans; and developed preliminary & final bridge plans for a column supported, 1,400’ long bridge using LG 36 and LG 54 prestressed concrete girders. He produced foundation layouts, typical sections, general plan and elevation sheets, and structural details for the new bridge over the Bogue Falaya River as part of this Urban Arterial widening project.			
09/24 - 02/26	H.016095 LA 70 Rehab: Marguerite St to US 90; LADOTD; St. Mary Parish, LA - Engineer of Record. Daniel served as the Engineer of Record for this roadway rehabilitation project in St. Mary Parish. He led the design on all aspects of the project, including development of typical sections, drainage plan and profile sheets, and joint layouts w/ graphical grades. Daniel ensured the project delivery met LADOTD’s aggressive schedule.			
03/16 – 04/23	S.P. No. H.013116, LA 20 Widen: LA 307 – S. Vacherie; LADOTD; St. James & Lafourche Parishes, LA - Engineer of Record for Bridge Design/Project Engineer. Daniel served as an EOR for the asymmetrical widening of 2.7 miles of LA 20 near Vacherie, LA as a part of a rural arterial widening project. He performed all bridge replacement design tasks which included bridge replacement using split-phase construction methods, superstructure and substructure design using various programs including STADD ProV8i, prepared construction phasing details, foundation plans, and led overall bridge plan production efforts. Additionally, Daniel assisted with roadway widening tasks including sequencing and plan production.			
09/15 – 03/23	S.P. No. H.011152, I-12: US 190 to LA 59; LADOTD; St. Tammany Parish, LA - Engineer of Record / Project Engineer. Daniel performed bridge design and plan preparation for the widening of Ponchitolawa Creek (EB & WB) and Tammany Trace			



	(EB & WB) bridges utilizing AASHTO Type III prestressed girders and reinforced concrete slab spans with varying skew and span lengths. The design was completed using LEAP CONSPAN, STAAD and AASHTO BrR for load rating. He managed production and produced plans and details for the widening which included partial bridge demolition, foundation plans, split phase construction sequencing, widened substructure and superstructure details, and quantity breakdowns. Additionally, he assisted with roadway design including geometrics and drainage. Once the plans were submitted, Daniel provided construction support for RFIs, shop drawing submittals, and general coordination.
08/20 - 12/24	Contract 44-17598, Rural Bridge Replacement Initiative, Ph I (47 bridge structures); LADOTD; Districts 04, 05, 08, 58 - Engineer of Record/Project Manager. The overall project scope for this projects includes the replacement of 47 bridges throughout 10 Parishes in Louisiana under an expedited schedule. The bridge lengths ranged from 20' - 340'. As project manager, Daniel performed QC review of topographic surveys & served as the EOR for bridge & road elements including hydraulic analysis, scour, horizontal/vertical alignments, bridge TS&L, structural design, & load rating for all structures including LG-25 girders, RC slab spans, & box culverts. Daniel is also providing bridge and structural construction support for contractor submittals and requests for information.
05/21 - Ongoing	Contract 44-19336, Rural Bridge Replacement Initiative, Ph II (40 bridge structures); LADOTD; Districts 04, 05 - Engineer of Record/Project Manager: The project scope includes replacing 40 bridges across 6 parishes in Louisiana on an expedited schedule, with bridge lengths ranging from 20 to 240 feet. As project manager, Daniel conducted QC reviews of topographic surveys and served as the EOR for bridge and road elements, including hydraulic analysis, scour, horizontal and vertical alignments, bridge TS&L, structural design, and load rating for all structures, including reinforced concrete slab spans and box culverts. Daniel also provides general construction support as necessary.
05/23 - Ongoing	Contract 44-25027, Infrastructure Investment and Jobs Act (IIJA) Off System Bridge Program District 08; LADOTD; District 08, LA - Engineer of Record/Project Manager. The overall project scope includes the replacement of 12 off-system bridges in Central Louisiana. Daniel is performing QC review of topographic surveys & serves as the EOR for bridge & road elements including hydraulic analysis, scour, horizontal/vertical alignments, bridge TS&L, structural design, & load rating for all structures including reinforced concrete slab spans & box culverts.

Firm employed by: T. Baker Smith, LLC					
Name	Lisa Osborne		Years of relevant experience with this employer	11	
Title	Senior Project Designer		Years of relevant experience with other employer(s)	33	
Degree(s) / Years / Specialization					
Active registration number / state / expiration date					
Year registered		Discipline			
Contract role(s) / brief description of responsibilities		Senior Technician			
Lisa will provide CADD design services for roadway design and engineering on this project. Lisa Osborne is a senior project designer with over 40 years of CAD experience in civil, transportation, structural, and mechanical engineering. She has extensive experience using MicroStation and Autocad for civil, roadway, and structural projects. Lisa is experienced in using InRoads for developing horizontal and vertical alignments including generating templates to develop roadway sections and earthwork quantities. She utilizes InSurvey for importing survey features into the design model and to develop the existing surface. She has prepared complete set of drawings for construction on numerous civil and structural projects. She has completed LADOTD CAD conform training and is proficient in LADOTD's standards of roadway plan preparation. She is skilled in all current versions of Microstation and Autocad and has completed a 40-hour program for ArcGis through Penn State Online Courses.					
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
02/20 – 12/22	S.P. No. H.012812, US 190 at Northshore and Camp Villere; LADOTD; St. Tammany Parish, LA - Senior Project Designer. Created roadway templates and developed corridor model for the urban multi-lane roundabout at the intersection of US 190 and Northshore Blvd. and the urban single lane roundabout at US 190 and Camp Villere Rd. Created graphical grading sheets from the roadway model to derive accurate cross sections and earthwork volumes. Lisa was also responsible for the creation of several plan sheets including Plan & Profile Sheets, Typical Sections, Geometric Layouts, Joint Layouts and Cross Sections. Assisted in the determination of several quantities including earthwork, asphalt, concrete curb and gutter, and PCC pavement.				
10/16 – 03/23	I-12, US 190 to LA 59; LADOTD; St. Tammany Parish, LA - Senior Project Designer. Assisted with roadway geometric design including H&V alignments, performed advanced roadway design modeling including complete corridor modeling using Microstation/Inroads, modeling of median barriers, transitions, all cross sectional roadway elements, open ditches and interchange elements, modeling of construction phasing for Level 4 Traffic Management Plans, prepared roadway plans for the four-mile widening and reconstruction of Interstate 12.				
12/23 - Ongoing	H.015576 LA 447 & LA 1025: Roundabout; LADOTD; Livingston Parish, LA - Senior Project Designer. Created roadway templates and developed corridor model for the urban single lane roundabout at the intersection of LA 447 and LA 1025. Created graphical grading sheets from the roadway model to derive accurate cross sections and earthwork volumes. Lisa was also responsible for the creation of several plan sheets including Plan & Profile Sheets, Typical Sections, Geometric Layouts, Joint Layouts and Cross Sections. She utilized Autoturn to confirm turning movements for all legs of the roundabout for a WB-67 and BUS-45 and assisted in the determination of several quantities including earthwork, asphalt, concrete curb and gutter and PCC pavement.				
08/20 – Ongoing	Rural Bridge Replacement Initiative Phases I & II, 87 Bridge Structures; LADOTD; Statewide, LA - Senior Project Designer. Assisted with roadway geometric design including H&V alignments, bridge modeling including embankment and revetment layout. performed advanced roadway design modeling including complete corridor modeling using				

	MicroStation/InRoads, transitions, all cross sectional roadway elements, open ditches, prepared roadway plans using MicroStation, InRoads, CADConform and AutoTURN.
10/14 – 06/21	I-12 to Bush: LA 3241: LA 435 to LA 40/41; LADOTD, St. Tammany, LA - Senior Project Designer. Performed topographic survey data processing and deliverable preparation, roadway designer activities including roadway corridor modeling of roadway surface, open ditches, median cross overs and intersections utilizing Inroads and roadway plan production for the new 5.5-mile, four-lane RA-3 roadway from LA 435 to Bush, LA.
07/17 – 04/23	LA 20 Widen: LA 307 – S. Vacherie; LADOTD; St. James & Lafourche Parishes, LA - Senior Project Designer. Assisted with roadway design efforts for the widening of 2.7 miles of LA 20 to add shoulders. Created roadway templates and corridor model, determined limits of construction, derived roadway quantities, create and annotated cross sections including earthwork volumes. She also assisted in determining the different levels of embankment required due to roadway widening and settlement.
10/14 – 06/21	S.P. No. H.004113, I-12 to Bush: LA 3241: LA 435 to LA 40/41; LADOTD; St. Tammany Parish, LA - Senior Project Designer. Performed topographic survey data processing and deliverable preparation, roadway designer activities including roadway corridor modeling of roadway surface, open ditches, median cross overs and intersections utilizing Inroads and roadway plan production for the new 5.5-mile, four-lane RA-3 roadway from LA 435 to Bush, LA.
02/18 - 02/25	S.P. No. H.001344, US 190: LA 437 to US 190 Bus (Ph 1); LADOTD; St. Tammany Parish, LA - Senior Project Designer. Develop horizontal and vertical alignments for use in developing the model. Prepare cross sections, volumes, quantities and general plan development. Assist in the development of required retaining walls and revetments for the bridge.

Firm employed by: T. Baker Smith, LLC					
Name	Jean Reulet, III, PLS		Years of relevant experience with this employer	5	
Title	Lead Professional, Transportation Survey		Years of relevant experience with other employer(s)	13	
Degree(s) / Years / Specialization			Bachelor of Science / 2011 / Geomatics		
Active registration number / state / expiration date			PLS.5145 / Louisiana / 03.31.2026		
Year registered	2015	Discipline	Professional Land Surveyor		
Contract role(s) / brief description of responsibilities			Surveyor		
Jean will manage all survey efforts on this project. Jean satisfies MPR #5. Jean Reulet, III, PLS serves as TBS' Surveying Lead Professional of Transportation. His field experience for LADOTD projects began in 2011 where he has been involved in dozens of survey projects of various sizes across the State of Louisiana. He has participated in all stages of a Topographic Survey from field data collection to final deliverables preparation according to the LADOTD's Location and Survey Manual. This experience has enabled Jean to develop a very thorough QA/QC process which has been used to train a highly skilled project team. In addition, Jean is experienced in LADOTD contract management and task order negotiations. Jean is also well versed in the use of LiDAR for data acquisition purposes, providing a safer alternative for collecting large amounts of data in highly trafficked or congested environments.					
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
11/21 – Ongoing	Contract 44-21973 IDIQ for Professional Surveying Services; LADOTD; Statewide, LA - Project Manager/Surveyor of Record. Jean serves as the project manager and surveyor of record for this Surveying Services IDIQ. He is responsible for manhour estimate preparation and contract negotiations. Jean coordinates with private landowners, railroads, and other entities to obtain right-of-entry prior to survey commencement. He oversees the topographic data collection and processing, utility research, and drainage map development. He also provides QA/QC and ensures delivery according to project schedule. To date, Jean has successfully completed five task orders (H.009892, H.014414, H.015587, H.016324, H.016326) with four more currently active (H.009892, H.016322, H.016323, H.016333).				
09/22 - 08/23	LA 22: Bedico Creek-Pine Creek; LADOTD; St. Tammany Parish, LA - Sr. Project Manager. Performed field crew coordination, data processing, project QA/QC and management for Topographic Survey and Existing Drainage Map. The project involves the widening of LA 22 and improvements to the intersection of LA 22 and Perrilloux Road.				
09/21 – 01/23	Contract 44-17598, Rural Bridge Replacement Initiative, Ph I (47 bridge structures); LADOTD; Districts 04, 05, 08, 58 - Survey Project Manager. Coordinated field crews, processed data daily, and provided QA/QC of deliverables. TBS performed control, topographic, and right of way surveys for the replacement of 47 bridge structures in northern Louisiana. Data was captured to detail the existing bridges themselves, roadways on either side, and surrounding terrain to ensure proper tie into existing surfaces. Cross sections of the channels they cross were also surveyed to provide information for hydraulic modeling. Data is then processed and QA/QC performed and coordinated with in-house engineers designing the replacement bridges.				
07/21 – 02/24	Contract 44-19336, Rural Bridge Replacement Initiative, Ph II (40 bridge structures); LADOTD; Districts 04, 05 - Survey Project Manager. Coordinated field crews, processed data daily, and provided QA/QC of deliverables. TBS performed control, topographic, and right of way surveys for the replacement of 40 bridge structures in northern Louisiana. Data was captured to detail the existing bridges themselves, roadways on either side, and surrounding terrain to ensure proper tie into to existing				

	surfaces. Cross sections of the channels they cross were also surveyed to provide information for hydraulic modeling. Data is then processed and QA/QC performed and coordinated with in-house engineers designing the replacement bridges.
06/23 - Ongoing	Contract 44-25027, Infrastructure Investment and Jobs Act (IIJA) Off System Bridge Program District 08; LADOTD; District 08, LA - Sr. Project Manager/Surveyor of Record. Oversaw the completion of topographic surveys for the replacement of 12 bridges. Responsible for field crew coordination, project QA/QC, title research, and deliverables preparation. Surveys were performed to LADOTD Location and Survey standards. Data was captured to detail the existing bridges, roadways on either side, and surrounding terrain to ensure proper tie into existing surfaces.
11/23 – 02/24	H.015576 LA 447 & LA 1025: Roundabout; LADOTD; Walker, LA - Surveyor of Record. Oversaw the completion of a topographic survey for the design and construction of a roundabout. Coordinated with survey crews and project technicians throughout the collection and review of topographic data and utility information. Performed QAQC and Deliverables preparation.
07/24 – Ongoing	IDIQ for Professional Surveying Services; MDOT; Statewide, MS - Project Manager. Jean is responsible for scope development, manhour estimate preparation, and contract negotiations. Jean coordinates with private landowners and other entities to obtain right-of-entry prior to survey commencement. He oversees topographic and hydraulic data collection, data processing, and utility research. He also provides QAQC.
12/23 – 04/24	S.P. No. H.015555 LA 1077 & Brewster Rd Roundabout; LADOTD / St. Tammany Parish; Madisonville, LA - Surveyor of Record. Oversaw the completion of a topographic survey for the design and construction of a roundabout. Coordinated with survey crews and project technicians throughout the collection and review of topographic data and utility information. Performed QAQC and Deliverables preparation.
02/15 – 04/16	H.011137 and H.011152 I-12 (LA 21 to US 190) & I-12 (US 190 to LA 59); LADOTD; St. Tammany Parish, LA - Sr. Project Manager. Performed a Topographic Survey for the widening of approximately 9 miles of I-12 in St. Tammany Parish, LA including 4 interstate overpasses and the bridge over the Tchefuncte River. Coordinated with field crews, technicians, and Subsurface Utility Engineering consultant. Provided QAQC and assisted in Deliverables preparation.
03/17 - 04/18	S.P. No. H.004987, US 190 Collins Blvd. Widening; LADOTD; St. Tammany Parish, LA - Sr. Project Manager; Responsible for Topographic survey, field crew coordination and project QAQC for the widening of a 3 mile portion of US 190 in Covington, LA including the bridge replacement over the Bogue Falaya River. DTM width was approximately 300ft.
08/19 – 11/19	H.005121.5 LA 1 / LA 415 Connector; LADOTD; West Baton Rouge Parish, LA - Senior Project Manager. Responsible for field crew oversight, data processing and review, and deliverables preparation. Performed Topographic survey for construction of a connector Road between LA 415 and LA 1. This project included a hydrographic Survey of a portion of the Intracoastal Waterway.
06/16 – 2/17	H.000263.5 Chef Menteur Pass Bridge; LADOTD; Orleans Parish, LA - Sr. Project Manager. Responsible for Topographic/hydrographic survey, field crew coordination, surface generation for Chef Pass Bridge Replacement. This project included a hydrographic Survey of a portion of the Chef Menteur Pass.
04/20 – 11/20	H.000688 US 11 Norfolk Southern RR Overpass (HBI); LADOTD; St. Tammany Parish, LA - Sr. Project Manager. Responsible for field crew oversight, data processing and review and deliverables preparation. Performed a Topographic Survey for the replacement of the US 11 Overpass over the Norfolk Southern Railroad.

Firm employed by: T. Baker Smith, LLC				TBS T. BAKER SMITH	
Name	Jeremy Cormier, PLS		Years of relevant experience with this employer	<1	
Title	Project Manager, Survey		Years of relevant experience with other employer(s)	9	
Degree(s) / Years / Specialization		Bachelor of Science / 2008 / Business Management			
Active registration number / state / expiration date		PLS.5342 / Louisiana / 09.30.2026			
Year registered		Discipline	Professional Land Surveyor		
Contract role(s) / brief description of responsibilities			Surveyor		
Jeremy will provide survey services for this project. Jeremy Cormier, PLS has experience in managing field crews and performing office work on on-system LADOTD Topographic Surveys. He has performed CAD work and assisted in project management over 10 task orders under 3 separate Topographic IDIQ Contracts with LADOTD. Mr. Cormier will serve as Topographic Task Lead during this contract, and in that role he will assist the Project Manager in supervising all field and office work performed on task orders. He will also assist the Project Manager in estimating task orders and producing project deliverables ahead of any project deadlines. Mr. Cormier will be responsible for performing the initial layer of QA/QC through all phases of each task order, including the final project deliverables. His responsibilities also include training both office and field staff to ensure LADOTD standards are met on a task order					
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 - 12/22	H.003931 Calcasieu River Bridge Replacement; LADOTD; Lake Charles, LA - Project Manager. Responsible for providing topographic and property surveying services for the I-10 Calcasieu Bridge Replacement. The project is in a combination of dense urban area and interstate system and is approximately 7 miles. Completed terrestrial & mobile LiDAR and conventional topographic data to replace the current bridge.				
8/11 - 9/25	H.014308.5 Pope Ln IC RR Crossing; LADOTD; Tangipahoa Parish, LA - Project Manager. Led survey efforts for planned roadway and railroad-crossing improvements at the intersection of Pope Lane and Canadian National Railroad near Amite, City, LA, overseeing field coordination and data management for a 30-acre project area. Jeremy prepared a detailed topographic survey and existing drainage map to support engineering design and permitting requirements. He performed comprehensive QA/QC of field data, point files, and CAD surfaces to ensure accuracy, consistency, and compliance with project standards. Jeremy assisted in assembling final deliverables, including drawings, digital files, and supporting documentation for client review.				
9/25 - Ongoing	OLHC Bridge Bundle 8; Office of Louisiana Highway Construction; Statewide, Louisiana - Project Manager. T. Baker Smith serves as the prime consultant for OLHC’s 2026 Bridge Bundle Program, delivering comprehensive engineering, surveying, and construction support services for nine bridge replacement projects across Districts 02, 61, and 62. Responsible for topographic surveying and right-of-way establishment that included field investigations for existing right-of-way determination.				
02/19 - 04/25	H.004273.5 - I-49 Connector; LADOTD; Lafayette Parish, LA - Survey CAD Technician. Responsible for providing topographic and property surveying services for the I-49 Connector. The project is in a dense urban area and is approximately 5 miles long. Forte and Tablada, Inc. completed terrestrial LiDAR scanning services for much of the congested corridor as a means to obtaining topographic data without endangering surveyors.				
06/20 - 03/22	H.013979, H.013995, H.013992, H.013994, H.013985, H.013954, H.013990 - Rural Bridge Replacement Initiative Phase I, 7 State Project Numbers (22 Bridge Sites); LADOTD; Districts 04, 05, 08 and 58 (4400017598) – Survey CAD Technician.				

	Responsible for topographic surveying and right-of-way mapping services that included title take-offs, field investigations to survey property boundary evidence, boundary analysis, existing right of way location determination and right of way mapping.
06/21 - 04/25	H.014219, H.014222, H.014228, H.014231 and H.014236 – Rural Bridge Replacement Initiative Phase II, 5 State Project numbers (20 Bridge Sites); LADOTD; Districts 04 and 05 (4400019336) – Survey CAD Technician. Responsible for topographic surveying and right-of-way mapping services that included title take-offs, field investigations to survey property boundary evidence, boundary analysis, existing right of way location determination and right of way mapping.
08/19 -10/19	H.011670- I-10/Loyola Interchange Improvements; LADOTD; Kenner, LA - Survey CAD Technician. Provided Topographic Survey, Right- of-Way Survey, and Drainage Survey. The project stretches along I-10, from the levee in Kenner to the Williams Blvd. off ramp, as well as Loyola Avenue and portions of Veterans Blvd for approximately 3.2 miles of roadway. The Survey was part of a Design-Build Project, which required weekly data updates, to allow the Design team to begin working and stay on schedule.
08/23 - 04/25	H.015547, H.015548, H.015549, H.015341, H.015551, H.015552, H.015545, H.015550, H.015544, H.015553- Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program, 10 State Project Numbers (13 Bridge Sites); LADOTD; District 61 (4400025029) – Survey CAD Technician. Responsible for topographic surveying and right-of-way mapping services that included title take-offs, field investigations to survey property boundary evidence, boundary analysis, existing right of way location determination and right of way mapping.
06/18 -12/19	H.012393- LA 98: Roundabout at Mills St., Lafayette Parish, LA - Survey Party Chief. Provided right of way surveys for this project that requires construction of new roundabout at the intersection of Mills Street and W. Gloria Switch Road (LA Hwy 98) in Lafayette Parish, Louisiana.
06/23- 04/25	Juban Road Extension – Livingston Parish, LA - Survey CAD Technician. Providing control, topographic, and property surveying services. The purpose of the project was to construct a new roadway as a connection between US Highway 190 and Lockhart Road (LA Hwy 1026). Forte & Tablada is also responsible for QA/QC and management of work performed by another Survey firm.
07/23 - 08/23	LA 1088 and Viola St. Traffic Improvements St. Tammany Parish, LA - Survey CAD Technician. Provided Topographic and Property Survey to establish existing right-of-way.
03/24 - 3/24	H.015935-LA 47 Over Bayou Bienvenue-Emer Bridge Repl Survey - Survey CAD Technician. Provided Topographic and Property Survey to establish existing right-of-way..

Firm employed by: T. Baker Smith, LLC					
Name	Anthony Burns		Years of relevant experience with this employer	4	
Title	Project Manager, Survey		Years of relevant experience with other employer(s)	19	
Degree(s) / Years / Specialization					
Active registration number / state / expiration date					
Year registered		Discipline			
Contract role(s) / brief description of responsibilities		Senior Technician			
Anthony will provide survey technical services on this project. Anthony Burns has over 23 years of experience as a rodman, party chief, and project manager with numerous LA DOTD and City-Parish projects involving topographic, right of way, and boundary surveys. His experience includes conventional and terrestrial LiDAR, and mobile LiDAR scanning. He is thoroughly familiar with LA DOTD Location and Survey Procedures, manuals, and software programs with respect to all requirements. He manages our survey field crews and equipment. He holds ATSSA Traffic Control Technician (TCT), Traffic Control Supervisor (TCS), and Flagger certifications, and is TWIC and OSHA certified.					
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).				
03/17 – 04/18	S.P. No. H.004987, US 190 Collins Blvd. Widening; LADOTD; St. Tammany Parish, LA - Sr. Project Manager; Responsible for Topographic survey, field crew coordination and project QA/QC for the widening of a three-mile portion of US 190 in Covington, LA. DTM width was approximately 300ft.				
06/23 - Ongoing	IJA Off-System Bridge Replacement Program; Contract No. 44-25027; LADOTD; Statewide - Project Manager. Assisted in the completion of topographic surveys, property surveys, and right of way maps for the replacement of 12 bridges. Assisted with field crew coordination, data processing, project QA/QC, and deliverables preparation. Surveys were performed to LADOTD Location and Survey standards.				
10/22 - 10/23	Contract 44-17598, Contract 44-19336, Rural Bridge Replacement Initiative, Ph I and Ph II (87 bridge structures); LADOTD; Districts 04, 05, 08, 58 - Survey Technician. Responsible for review of topographic surveys.				
11/21 - Ongoing	Contract 44-21973 for Professional Surveying Services; LADOTD, Statewide, LA - Senior Technician. Anthony assists in the development of manhour estimates and the completion of topographic surveys under this contract. He coordinates right-of-entry with landowners, manages field crews, and processes data daily. He performs project QA/QC and aids in Deliverables preparation.				
04/21 – 07/21	S.P. No. H.009300, Hooper Road Widening (LA 3034 – LA 37); LADOTD; East Baton Rouge Parish, LA - Project Manager/Field Crew Manager. Responsible for a topographic survey and subsurface utility engineering for a one mile stretch of LA Hwy 408.				
07/24 - Ongoing	IDIQ for Professional Surveying Services; MDOT; Statewide, MS - Senior Technician. Anthony assists in the development of manhour estimates and the completion of topographic surveys under this contract. He coordinates right-of-entry with landowners, manages field crews, and processes data daily. Anthony also performs project QA/QC and aids in Deliverables preparation.				
11/23 - 06/24 (survey complete)	S.P. No. H.015576, LA 447 & LA 1025: Roundabout; LADOTD; Livingston Parish, LA - Project Manager. Responsible for field crew oversight and data processing and review. Performed Topographic survey for the design and construction of a roundabout at the intersection LA 447 and LA 1025 near Walker, Louisiana.				

01/18 – 04/20	S.P. No. H.004100, I-10: LA 415 to Essen Lane; LADOTD; East and West Baton Rouge Parishes, LA - Project Manager. Responsible for field crew oversight, and data processing and review. Performed Topographic survey for the widening of I-10 through Baton Rouge.
09/22 – 06/23	S.P. No. H.015405, Keller Street Bridge Replacement; St. Tammany Parish Government; St. Tammany Parish, LA - Project Manager. Performed field crew coordination and data processing for Topographic Survey for this bridge replacement project.
04/14 – 10/19	S.P. No. H.002151.5, LA 339 & LA 339S Bayou Parc; LADOTD; Lafayette Parish, LA - Project Manager. Performed data processing, title research and project QAQC for Property Surveys and Right of way Maps. (Location: LADOTD District 03).
09/22 – 08/23	S.P. No. H.014414, LA 22: Bedico Creek–Pine Creek; LADOTD; St. Tammany Parish, LA - Project Manager. Responsible for review of topographic surveys, performed data processing, and managed the crews on this project.
02/15 – 04/16	S.P. Nos. H.011137 and H.011152, I-12 (LA 21 to US 190) & I-12 (US 190 to LA 59); LADOTD; St. Tammany Parish, LA - Project Manager/ Field Crew Manager. Responsible for topographic survey on this project
05/15 – 11/15	S.P. No. H.011224, US 190 Guardrail/Rutting Rep. (Ph I); LADOTD; Pointe Coupee Parish, LA - Project Manager/Field Crew Manager. Responsible for topographic survey along five portions of US 190. The project was located in Pointe Coupee Parish from LA 1 westward approximately 18.5 miles to the east side of the Atchafalaya Bridge.
04/20 – 11/20	S.P. No. H.000688, US 11 Norfolk Southern RR Overpass (HBI); LADOTD; St. Tammany Parish, LA - Project Manager. Responsible for field crew oversight, data processing and review and deliverables preparation. Performed a Topographic Survey for the replacement of the US 11 Overpass over the Norfolk Southern Railroad.

Firm employed by: T. Baker Smith, LLC					
Name	Branden Kinnaird		Years of relevant experience with this employer	4	
Title	Party Chief, Survey		Years of relevant experience with other employer(s)	4	
Degree(s) / Years / Specialization					
Active registration number / state / expiration date					
Year registered		Discipline			
Contract role(s) / brief description of responsibilities		Party Chief			
Branden will serve as Survey Party Chief for survey efforts under this contract. Branden Kinnaird has extensive experience performing surveys according to the LADOTD and Survey Manual. He has a thorough understanding of LADOTD feature coding, control setting procedures, and data collection methodology. Branden has utilized conventional surveying equipment, Real-Time Kinematic GPS equipment, and terrestrial LiDAR for field data collection. In addition to his topographic survey experience, Branden is also very familiar with the principles and procedures for boundary surveying. He has been involved in projects on the state and local levels, as well as for private clients.					
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
11/23 – 01/24	IDIQ Contract for Roadway Design Services Statewide: H.015576 LA 447 & LA 1025: Roundabout; LADOTD; Livingston Parish, LA- Party Chief. Responsible for establishing project control and collecting topographic and drainage data for the design and construction of a roundabout at the intersection LA 447 and LA 1025 near Walker, Louisiana.				
11/21 - Ongoing	Contract 44-21973 for Professional Surveying Services; LADOTD, Statewide, LA – Party Chief. Branden assists in the completion of topographic surveys under this contract. He coordinates right-of-entry by meeting onsite with landowners, establishes control, and collects topographic, drainage, and utility data.				
01/24 - 02/24	S.P. No. H.015555, LA 1077 & Brewster Rd Roundabout; LADOTD / St. Tammany Parish, LA - Party Chief. Branden established project control and performed topographic survey, including development of an existing drainage map, for the design and construction of a roundabout at the intersection of LA 1077 and Brewster Road near Madisonville, Louisiana.				
07/24 – Ongoing	IDIQ for Professional Surveying Services; MDOT; Statewide, MS – Party Chief. Branden assists in the completion of topographic, hydraulic, bathymetric, and property surveys under this contract. He coordinates right-of-entry by meeting onsite with landowners, establishes control, and collects topographic, drainage, and utility data.				
06/23 - 08/23	IDIQ Contract for Roadway Design Services Statewide: LA 3211 Yokley Road: Roundabout; LADOTD - District 03; St. Mary Parish, LA - Party Chief. Branden established project control and performed topographic survey, including development of an existing drainage map, for the design and construction of a roundabout at the intersection of LA 3211 and Yokley Road in Franklin, Louisiana.				
06/23 - Ongoing	IJA Off-System Bridge Replacement Program, Contract No. 44-25027; LADOTD; Statewide, LA, District 08 – Party Chief. Branden established project control, performed topographic surveys and recovered boundary monumentation for the development of Right-of-Way maps. Surveys were performed to LADOTD and Survey standards for the replacement of 12 bridges.				
09/22 – 05/23	S.P. No. H.014264, LA 556: Bridges Near Choudrant; LADOTD; Jackson & Lincoln Parishes, LA – Survey Crew Chief. Performed field data collection for Property Survey and Right of Way Maps.				

09/22 – 12/22	S.P. No. H.014238, LA 818: Barnet Springs & Creek Bridges; LADOTD; Lincoln Parish, LA - Survey Crew Chief. Performed field data collection for Property Survey and Right of Way Maps.
10/22 – 11/22	S.P. No. H.014239, LA 589: Alligator Bayou Bridge; LADOTD; West Carroll Parish, LA - Survey Crew Chief. Performed field data collection for Property Survey and Right of Way Maps.
03/21 – 12/21	MoveBR Nicholson Segment 2 (Bluebonnet – Ben Hur); East Baton Rouge Parish, LA - Survey Crew Chief. Performed field data collection for Property Survey and Right of Way Maps and Topographic Survey.
11/23 – 01/24	S.P. No. H.015576, LA 447 & LA 1025: Roundabout; LADOTD; Livingston Parish, LA - Party Chief. Responsible for establishing project control and collecting topographic and drainage data for the design and construction of a roundabout at the intersection LA 447 and LA 1025 near Walker, Louisiana.
09/22 – 08/23	S.P. No. H.014414, LA 22: Bedico Creek – Pine Creek; LADOTD; St. Tammany & Tangipahoa Parishes, LA - Survey Crew Party Chief. Established project control and performed topographic survey, including development of an existing drainage map, for the widening of LA 22 near Madisonville, Louisiana.
06/20 – 07/21	S.P. No. H.000358.5, US 190: LA 415 & RR Overpass Repl (HBI); LADOTD; West Baton Rouge Parish, LA - Survey Crew Chief. Performed field data collection for Property Survey and Right of Way Maps.
03/21 – 06/21	MoveBR Lee Drive (Highland Road – Perkins Road); East Baton Rouge Parish, LA - Survey Crew Chief. Performed field data collection for Property Survey and Right of Way Maps.
11/19 – 12/20	S.P. No. H.001344.5, US 190: LA 437-US 190 BUS (Ph 1); LADOTD; St. Tammany Parish, LA - Survey Crew Chief. Performed field data collection for Property Survey and Right of Way Maps.
06/20 – 07/21	S.P. No. H.000358.5, US 190: LA 415 & RR Overpass Repl (HBI); LADOTD; West Baton Rouge Parish, LA - Survey Crew Chief. Performed field data collection for Property Survey and Right of Way Maps.

Firm employed by: T. Baker Smith, LLC					
Name	Derek McGehee		Years of relevant experience with this employer	5	
Title	Party Chief, Survey		Years of relevant experience with other employer(s)	1	
Degree(s) / Years / Specialization					
Active registration number / state / expiration date					
Year registered		Discipline			
Contract role(s) / brief description of responsibilities		Party Chief			
Derek will serve as Survey Party Chief for survey efforts under this contract. Derek McGehee is a Party Chief located in the TBS Baton Rouge office. Derek has experience performing surveys according to the LADOTD and Survey Manual. He has a thorough understanding of LADOTD feature coding, control setting procedures, and data collection methodology. Derek has utilized conventional surveying equipment, Real-Time Kinematic GPS equipment, and terrestrial LiDAR for field data collection. In addition to his topographic survey experience, Derek is also familiar with the principles and procedures for boundary surveying. He has been involved in projects on the state and local levels, as well as for private clients.					
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
11/23 – 01/24	IDIQ Contract for Roadway Design Services Statewide: LA 3211 Yokley Road: Roundabout; LADOTD; St. Mary Parish, LA - Party Chief. Derek established project control and performed topographic survey, including development of an existing drainage map, for the design and construction of a roundabout at the intersection of LA 3211 and Yokley Road in Franklin, LA.				
10/22 - 04/23	Contract 44-19336, Rural Bridge Replacement Initiative, Ph II (40 bridge structures); LADOTD; Districts 04 & 05 - Party Chief. Derek established project control, performed topographic surveys and recovered boundary monumentation for the development of Right-of-Way maps. Surveys were performed to LADOTD and Survey standards for the replacement of 47 bridge structures in Northern Louisiana.				
10/22 - 08/23	S.P. No. H.014414, LA 22: Bedico Creek – Pine Creek; LADOTD; St. Tammany & Tangipahoa Parishes, LA - Party Chief. Derek established project control and performed topographic survey, including development of an existing drainage map, for the design and construction of a roundabout at the intersection of LA 1077 and Brewster Road near Madisonville, Louisiana.				
08/23 - 07/24	IIJA Off-System Bridge Replacement Program; LADOTD; District 08 - Party Chief. Derek established project control, performed topographic surveys and recovered boundary monumentation for the development of Right-of- Way maps. Surveys were performed to LADOTD and Survey standards for the replacement of 12 bridges.				
01/24 - 02/24	S.P. No. H.015555, LA 1077 & Brewster Rd Roundabout; LADOTD / St. Tammany Parish; Madisonville, LA- Party Chief. Derek established project control and performed topographic survey, including development of an existing drainage map, for the widening of LA 22 near Madisonville, Louisiana.				

Firm employed by: Vectura Consulting Services, LLC			VECTURA	
Name	Sheelagh Brin Ferlito, PE, PTOE		Years of relevant experience with this employer	10
Title	Principal		Years of relevant experience with other employer(s)	27
Degree(s) / Years / Specialization			B.S. / 1988 / Civil Engineering	
Active registration number / state / expiration date			PE.0025383 / LA 9/30/2025	
Year registered	1993	Discipline	Civil	
Contract role(s) / brief description of responsibilities			Traffic Control Design / Temporary Traffic Signal Analysis and Design QC	
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
07/21 - current	H.007160 - EBR Computerized Traffic Signal, Phase VB (Baton Rouge, LA) Brin is the task leader for Vectura for the Construction Engineering and Inspection of 24 traffic signals. Brin oversaw the review of signal mast arm shop drawings to assist the City-Parish of Baton Rouge in accepting the manufactured poles. Brin and Reece, with the DOTD, City-Parish and the Contractor conducted field visits to confirm pole foundation locations.			
07/19 – current	MOVEBR New Capacity Projects Program Management (Baton Rouge, LA) Brin is the 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 – current	H.004791 DOTD Belle Chasse Bridge & Tunnel Replacement PPP (Belle Chasse, LA) Brin is the project manager for the temporary and permanent traffic signal plans for the intersections of LA 23 at Burmaster St and at Engineers Rd. She based her traffic signal plans on design year volumes that were developed using growth rates from the New Orleans Regional Planning Commission Travel Demand Model. This project is the first ever Public-Private-Partnership performed by Louisiana DOTD.			
04/18 – 06/21	H.011909.5-4 Roundabout: US 171 at Boone St. (Vernon Parish) Brin reviewed 60 Percent Preliminary Signing and Striping Plans and developed documented comments based on LADOTD Road Design Manual, LADOTD Standard Details and MUTCD. She is also the project manager for the design of temporary traffic signal plans that will be implemented during the roundabout construction at the intersection of US 171 at Boone Street in Leesville, LA. She coordinated access management issues using aerials, aged traffic volumes and Synchro Software.			
09/20 – 12/21	H.010960.5 LA 30 Roundabouts at Tanger I-10 (Ascension Parish, LA) Brin is the project manager for the design of temporary traffic signal plans that will be implemented during the roundabout construction along LA 30 in Gonzales, LA. The project involves replacing three existing signalized intersections with multilane roundabouts along LA 30 at I-10 Interchange ramps and at the Tanger Boulevard. Vectura also developed signal timing plans for each phase of the construction to maintain progression along LA 30.			
07/18 – 04/19	LA 1 Pedestrian Crosswalk Study and Traffic / Pedestrian Signal Design West Baton Rouge Parish, Addis, LA Brin developed a Pedestrian Crosswalk Study and Traffic Signal Construction Plans for the intersection of LA 1 at LA 990 in Addis, LA. The study was based on DOTD Traffic Engineering Manual Crosswalk Guidelines followed by traffic signal design plans based on DOTD requirements. The study included traffic and pedestrian traffic data collection, a speed study, crash analyses, intersection analyses and progression analyses. The signal plans included pedestrian signal equipment, signal timing parameter			

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

Firm employed by: Vectura Consulting Services, LLC		VECTURA	
Name	Laurence Lucius Lambert, II, PE, PTOE, PTP		Years of relevant experience with this employer
Title	Principal		10
		Years of relevant experience with other employer(s)	
		18	
Degree(s) / Years / Specialization		B.S./1997/Civil Engr. M.S./2006/Civil Engr. (Transportation focus) M.B.A./2010	
Active registration number / state / expiration date		PE.0029901 / LA / 3/31/2026	
Year registered	2001	Discipline	Civil
Contract role(s) / brief description of responsibilities		Traffic Study QC	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
01/23 – 02/24	H.011504 Alexandria ITS Phase 2 Laurence was the project manager for a System Engineering Analysis Report, Engineering Opinion of Probably Construction Cost and Level 2 Transportation Management Plan.		
06/23 – current	H.011507.1 – Monroe Phase 3 SEA (Ouachita Parish) Laurence performed the Constraints and Device Location Analysis.		
03/21 – 03/22	H.014513.1 Lafayette Regional ITS Architecture Update Laurence completed an ITS System Inventory, identified all existing and future agreements between stakeholder organizations participating in the ITS operations in the Lafayette region, and updated the strategy for maintaining the regional ITS architecture.		
04/18 – 12/21	H.010960.5 LA 30 Roundabouts at Tanger & I-10 Gonzales (Ascension, LA) Laurence provided a Quality Control review of the temporary construction and sequence of construction plans. Vectura also provided Quality Control review of signing and striping plans at 30% and 60% plan sets to ensure the roundabouts conformed to the Pavement Markings Details Sheet PM-09 and the MUTCD details on roundabouts.		
04/18 – 12/21	H.011909.5-4 Roundabout: US 171 at Boone St. (Vernon Parish, LA) Laurence provided a Quality Control review of the temporary construction and sequence of construction plans. Vectura also provided Quality Control review of signing and striping plans at 30% and 60% plan sets to ensure the roundabouts conformed to the Pavement Markings Details Sheet PM-09 and the Manual on Uniform Traffic Control Devices (MUTCD) details on roundabouts.		
09/18 – 02/19	H.013261.1 I-110 ITS Deployment Systems Engineering Analysis (Project Manager) As a sub-consultant, Laurence was the task leader for the Constraints & Alternatives Analysis as well as the Projects & Procurement Strategy portion of the project. The goal of the project was to deploy Close Circuit Television (CCTV) cameras and one Dynamic Message Sign (DMS) along the I-110 corridor from US 190 to US 61. To communicate with the field devices from the Traffic Management Centers (TMCs), installing fiber optics along the I-110 corridor was recommended. The fiber optics also allow communication to the traffic signals at the interchange ramps along I-110 to the TMC.		
03/18 – 06/18	Shreveport Immediate ITS Phase 2b (Lead Traffic Engineer) Laurence was the task leader for Procurement and Alternative Analysis Configuration portions of the Systems Engineering Analysis (SEA) that complied with Code of Federal Regulations (CFR), Title 23, 940.11). The Alternatives Analysis Configuration consisted of analyzing three possible project configurations. The pros and cons of the needed equipment and communication options were documented. This task consisted of a field visit with DOTD staff to verify fiber optic lines, junction boxes and traffic signal controller types. The Procurement task consisted of investigating the methods of procurement for the deployment project where the procurement options for the pros and cons for each method were documented.		

09/16 - 04/17	H.004957.5 I-12 To Bush - LA 3241 (I-12 – LA 36) Corridor Study (St. Tammany Parish, LA) Laurence was the lead traffic engineer for a DOTD traffic study for the new LA 3241 alignment with the purpose of obtaining both existing and projected future traffic variables in accordance with standard operating procedures typically performed in these types of analyses. Laurence worked closely with the NORPC and District 62 to develop design year volumes using data the TransCAD model. The traffic study examined concepts that improved the safety and efficiency of the roadway consistent with the latest DOTD policies related to access management. Laurence, along with Brin, collected 7-day, 24-hour counts w/ classification on mainlines, turning movement counts for morning and evening peak periods and speed data for mainlines. Laurence also developed a VISSIM traffic simulation model of the preferred alternative.
07/14 - 01/17	FHWA Intersection & Interchange Geometrics: Innovative Design Considerations for All Users (Multiple States) FHWA funded workshops for state Departments of Transportation that were interested in learning more about innovative intersection & interchange design. Laurence presented either part or all the one-day or two-day workshops that included modules on the overall policy and goals of FHWA for these types of innovations, roundabouts, roundabout interchanges, DLTs, DDIs, J-turns / Superstreets, MUT, Thru-turns, quadrant, and the assessment tools (CAP-X) available to compare the measures of effectiveness of each innovation. Each module includes sections on design, traffic operations, safety and multi-modal accommodation Laurence has presented for the Alabama, Kentucky, Ohio, Oklahoma, Massachusetts, Tennessee, and Texas Departments of Transportation under this contract.
03/10 - 11/11	S.P. No. 700-09-0171 Stage 0 and 1 Study I-49 Inner City Connector (Shreveport, LA) This 3.5-mile route will connect existing I-49 / I-20 interchange to the proposed I-49 / I-220 interchange. After completing the Stage 0, Laurence was the project manager for the traffic analyses for the EA phase. The total traffic analyses effort included over 30 TransCAD Models, 20 interchanges and 70 intersections. Analyses included signalized and unsignalized intersections, basic freeway segments, freeway merge / diverge segments and freeway weaving segments at the studied intersections and interchanges. This project included performing both Interchange Modifications Reports (IMRs) and Interchange Justification Reports (IJRs).
08/05 – 10/06	Shreveport/Bossier City ITS/Bert Kouns Industrial Loop, Shreveport, LA (Project Manager) Laurence was in responsible charge of the design for ITS equipment on Louisiana 526 (Bert Kouns Industrial Loop) in Shreveport. The Project included approximately 10 closed circuit television cameras and 16 signalized intersection upgrades. Reviewed systems engineering analysis, plan for communications diagrams, fiber optic allocation diagrams, fiber optic termination diagrams, telecommunication facilities, power services, wireless transmitters and receivers, related conduit and end equipment, general notes, special details, technical specifications, and terrain analyses.
06/09 – 02/10	SPN 737-94-0030 Shreveport ITS (Near Term 3A), Shreveport, LA (Project Manager) Laurence was in responsible charge of the design of the ITS equipment on a 22-mile stretch of I-220 in Shreveport, including approximately 10 closed circuit television cameras, 4 dynamic message signs, 2 dynamic curve-warning signs and 40 radar vehicle detectors. Project included plan preparation of communications diagrams, fiber optic allocation diagrams, fiber optic termination diagrams, telecommunication facilities, power services, wireless transmitters and receivers, related conduit and end equipment, general notes, special details, technical specifications and terrain analyses. As PM, Laurence was involved in every aspect of this process.

Firm employed by: Vectura Consulting Services, LLC			VECTURA	
Name	Reece Rodrigue, PE, PTOE, RSP1		Years of relevant experience with this employer	5
Title	Project Traffic Engineer		Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization			B.S. / 2013 / Civil Engineering	
Active registration number / state / expiration date			PE. 0042074 / LA / 3/31/2026	
Year registered	2017	Discipline	Civil	
Contract role(s) / brief description of responsibilities			Project Engineer for Traffic Control Design / Temporary Traffic Signal Analysis and Design	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).			
04/21 - current	MOVEBR Direct Select for Traffic Signal Design, Baton Rouge, LA Reece is a project engineer for the design of traffic signal upgrades at 10 intersections. This project included a traffic design report, preliminary and final plans for traffic signals that included traffic signal layout, fiber interconnect layout, fiber splicing diagrams, pedestrian crosswalk layout, and sign layout. The design also included traffic signal synchronization signal timing and pedestrian signal timing.			
07/21 – current	H.007160 - EBR Computerized Traffic Signal, Phase VB (Baton Rouge) Reece is part of the team responsible for Construction Engineering and Inspection. Reece has reviewed the signal mast arm shop drawings to assist the City-Parish of Baton Rouge in accepting the manufactured poles. Reece, with the DOTD, City-Parish and the Contractor conducted field visits to confirm pole foundation locations.			
06/23 – current	H.011507.1 – Monroe Phase 3 SEA (Ouachita Parish) Reece performed a field inventory of the ground mounted traffic signal controllers. Reece visited the project site to document the controller type and detection needs at each signalized intersection within the right-of-way.			
06/22 – 02/23	H.012381.5 ITS Fiber Management System Data Collection Reece performed the field observations for 40 sites to verify the ITS FMS and inventory services.			
01/21 – 05/21	H.013256 - I-10 ITS Scott to Lake Charles (Lafayette, Acadia, and Jefferson Davis Parishes) Reece was a member of the subconsultant team who was tasked with reviewing the ITS plans for 15 sites along I-10 where CCTV cameras were being installed. Reece was responsible for measuring anticipated construction quantities and producing a cost estimate for said quantities by using DOTD’s Bid Tabulation and Cost Estimating Tool.			
09/20 – 12/21	H.011909.5-4 Roundabout: US 171 at Boone St. (Vernon Parish) Reece was a project engineer, who participated in the production of the temporary signal design associated with the sequence of construction for the roundabout at US 171 at Boone St. He conducted a thorough analysis of the US 171 corridor’s existing allowable movements and identified the movements that would be restricted during the proposed construction process and how it would impact the typical traffic patterns.			
09/20 – 12/21	H.010960.5 LA 30 Roundabouts at Tanger I-10 (Ascension Parish) Reece was a project engineer, who assisted in the production of the temporary signal design associated with the sequence of construction for the roundabouts on LA 30 in Gonzales, LA. This project consists of eight proposed construction phases. He assisted in calculating the temporary pole heights, determining the placement location for the temporary poles for each phase, measuring and calculating clearance intervals. Reece conducted a thorough analysis of the LA 30 corridor’s existing allowable movements and identified the movements that would be restricted during the proposed construction process and how it would impact the typical traffic patterns.			

04/20 - current	H.004791 DOTD Belle Chasse Bridge & Tunnel Replacement Public-Private Partnership Project (Belle Chasse) Reece is the project engineer who designed the temporary traffic signal for the intersection of LA 23 at Engineers Rd. The design of the temporary signals is set for eight phases of construction per 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.
02/20 – 09/21	College Drive Corridor Enhancement from Perkins Road to I-10 (Baton Rouge, LA) Reece was the task leader for organizing and formatting the data collection of the College Drive project limits. Tasks included in data collection were 7-day tube counts, intersection turning movement counts, approach tube counts, unmet demand observations, driveway counts, travel time runs, pedestrian / bicycle counts, and weaving counts.
07/19 – 12/19	Burgess Avenue at Duff Road Traffic Signal Design, Walker, LA Reece was responsible for the design of a fully actuated signalized intersection in the city of Walker, LA. The traffic signal was determined to meet signal warrants upon completion of the Foxglove subdivision in Livingston Parish, LA. Plans included road widening, signal face indication schedule, signal sequence chart, sign schedule, detector schedule, controller timing, wiring diagram, and free operation phasing diagram. Reece met with city officials to discuss the feasibility of constructing a traffic signal as opposed to other alternative measures for improving the intersection.
02/16 - 12/16	H.005733.5 US 190 Superstreet Task Order (St. Tammany Parish) Reece was a team member responsible for the layouts for the US 190 Superstreet signal designs. He created the preliminary plans using CAD software program MicroStation V8i. He aided in the technical design of each intersection. He conducted field inspections to verify locations of existing equipment as well as observing the area for feasible proposed utility locations. He attended project team meetings to discuss the project details as well as the plan-in-hand walk-through.
01/16 – 11/17	Ochsner Main Campus Traffic Signals (Jefferson Parish) Reece served as a design engineer for the traffic signal plans for the two Ochsner Main Campus access traffic signals with US 90 (Jefferson Hwy). The goal of the design was to implement updated pedestrian timings as well as optimize progression through the US 90 corridor. He reviewed traffic data and assigned time of day coordination timing parameters for the two intersections so that they may be included in the coordinated system west of the intersections. He used TruTraffic to determine the appropriate offset parameters so that vehicles may progress efficiently through the coordinated system. Plans for the two intersections were drafted in the form of DOTD's latest version of the TSI format. He was responsible for estimating construction quantities using DOTD's 2016 Spec Item list.
10/16 – 05/17	Loyola Interchange Modification Request, Kenner, LA Reece was a team member in the production of an Interchange Modification Report (IMR) for the I-10 at Loyola Dr. Interchange. He was an active member in collecting vehicle travel time data and processing the data. He also aided in collecting vehicle queues at the study intersections. He also assisted in the Vissim model calibration.

Firm employed by: Vectura Consulting Services, LLC				VECTURA	
Name	Kristen Gahagan Farrington, PE, PTOE, RSP1			Years of relevant experience with this employer	5
Title	Project Traffic Engineer			Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization				B.S. / 2013 / Civil Engineering	
Active registration number / state / expiration date				PE. 0042785 / LA / 3/31/2027	
Year registered	2018		Discipline	Civil	
Contract role(s) / brief description of responsibilities				Project Engineer for Traffic Study	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
05/23 – 07/23	H.013722 Morgan City Sidewalks & Shared Use Path (Morgan City, LA) Kristen was the lead engineer as part of a DOTD Safety IDIQ contract to document if an approach at a signalized intersection met the warrants listed in the <i>Traffic Engineering Manual</i> 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 <i>Traffic Engineering Manual</i> . The study consisted of vehicular and pedestrian counts, spot speed study, safety analysis and field observations.				
04/21 - current	CP No. 16 CI-US-0032 Bus Rapid Transit (BRT) Improvement Project (Baton Rouge, LA) Kristen a project engineer for a traffic design study and traffic signal design of 19 signals along three corridors: Plank Road, 22nd Street and US 190 (Florida Street). Kristen assisted the prime consultant with the safety analysis as well.				
08/21 – 04/22	H.013267 Downtown to Scottdenville Parkway Trail Safety Enhancement Study (Baton Rouge, LA) Kristen was a project engineer for a design study to evaluate the recommended street crossing treatments of the trail at eight locations. The project consisted of collecting vehicular speed and volume data at the proposed trail crossings. Geometric field checks were also performed to determine if any hazards to pedestrians or cyclists existed. Once the field data was collected and analyzed, appropriate crossing treatments utilizing the <i>FHWA STEP Guide for Improving Pedestrian Safety at Unsignalized Locations</i> were developed that included Rectangular Rapid-Flashing Beacons (RRFB) and Pedestrian Hybrid Beacons (PHB's). Currently, Vectura is developing plans for the PHB's at four locations which will be the first implementation of PHB's in the Baton Rouge area on a state route.				
02/20 – 09/21	MOVEBR College Drive Enhancement Project (Baton Rouge, LA) Kristen assisted with the data collection task of the College Drive project limits. Tasks included in data collection were 7-day tube counts, intersection turning movement counts, approach tube counts, unmet demand observations, driveway counts, travel time runs, pedestrian / bicycle counts, and weaving counts.				
6/19 - 2/21	H.013459 US 167 Improvements Stage 0 Elsie Street to Gilbert Street (St. Landry Parish, LA) Kristen served as project manager for a Stage 0 study to evaluate the addition of a third lane to US 167 from Elsie Street south to a point past Gilbert Drive. Environmental impacts and cost estimates were prepared, as well as a benefit-cost analysis of all improvements considered. Civil Engineer responsible for safety analysis including crash rate number method, over-representation, CATScan quality assurance, HSM existing safety analysis, and No-Build Analysis. Designed high-level concept exhibits and comparison matrix to determine best preliminary alternatives moving forward to meet the purpose and need of the project. Compiled meeting agenda materials and minutes.				

6/19 - 2/21	H.013460 US 167 Improvements Stage 0 Enola Street to Ross Road (Evangeline Parish, LA) Kristen served as project manager for a Stage 0 study of a two-lane road to remove a curvilinear section of US 167 from Enola Street near LA 748, southeast for approximately 1.2 miles. The study compared connecting existing property owners to a new roadway with driveways or intersection of old roadway. Environmental impacts and cost estimates were prepared. Civil Engineer responsible for safety analysis including crash rate number method, over-representation, CATScan quality assurance, HSM existing safety analysis, and No-Build Analysis, as well as a benefit-cost analysis. Designed high-level concept exhibits and a comparison matrix to determine best preliminary alternatives moving forward to meet the purpose and need of the project. Compiled meeting agenda materials and minutes.
04/19 – 6/21	H.013817.1 LA 117 Improvements Stage 0 (Vernon and Natchitoches Parishes, LA) Kristen served as project engineer responsible for a Stage 0 study for 18 miles of two-lane LA 117 from LA 8 to LA 118. The study evaluated the impacts of correcting deficient vertical and horizontal geometry along the corridor, widening for the addition of shoulders, and adding passing lanes and turn lanes at strategic locations along the corridor. Kristen was responsible for performing the safety analysis including crash rate number method, over-representation, CAT Scan quality assurance, HSM existing safety analysis, and No-Build Analysis. Kristen designed high-level concept exhibits, evaluated environmental impacts, and prepared high level cost estimates and comparison matrices to determine which preliminary alternatives best meet the purpose and need of the project. Kristen compiled all findings in the Stage 0 report and coordinated with stakeholders and local agencies to ensure the purpose and need of project is met.
03/19 – 11/19	H.012311 LA 429 Connector Stage 0 (Ascension Parish, LA) Kristen was the task leader for the preparation of a Stage 0 study to evaluate alignments for a limited-access corridor (LA 429) near I-10, between LA 30, LA 73, and US 61. Two alternatives for the widening and reconstruction of LA 429 were evaluated. The scope consisted of stakeholder and public meetings, site visits and data collection, phasing of alternative development for the corridor, scope and budget checklists, and an opinion of probable cost to prepare the Stage 0 Report. Kristen served as the civil engineer responsible for designing high level concept exhibits and comparison matrix to determine best preliminary alternatives moving forward to meet the purpose and need of the project. Compiled meeting agenda materials and minutes, coordinated with interchange study consultants for a cohesive project, and wrote report.
11/18 - 3/21	H.013322 LA 3040 Feasibility / Safety Study Stage 0 (Houma, LA) Kristen served as project engineer for a study to identify safety and operational issues along 2.5 miles of Martin Luther King Boulevard (LA 3040) in Houma, LA to evaluate reasonable alternatives to address any deficiencies discovered. Kristen was responsible for compiling a data collection plan for submittal to DOTD, including count locations, determined peak periods, and peak hours. Kristen performed peak period observations in the field and geometric field checks, as well as unmet demand observations and calculations. Kristen prepared TMC figures, as well as performed existing analysis in Vistro. Compiled all data collected into Appendices A and B per the DOTD Traffic Process and Report and wrote Chapter 1 of report. Kristen represented the project at stakeholder meetings to discuss project status.

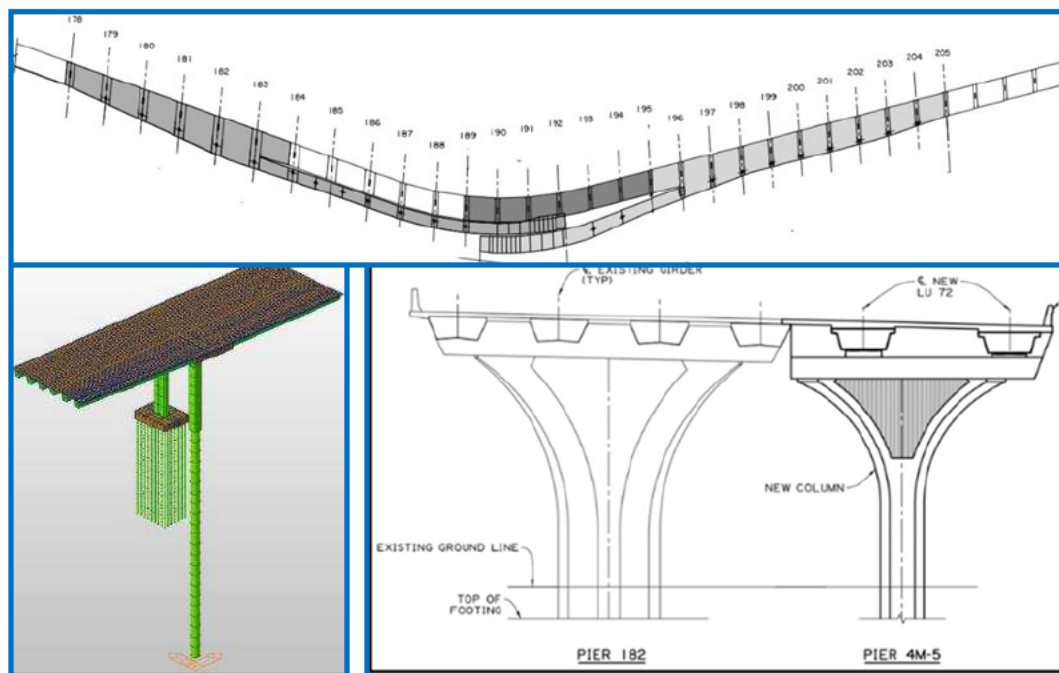
17. FIRM EXPERIENCE:

Firm name	SDR Engineering Inc 	Discipline(s)	Bridge
Project name	MacArthur Interchange Completion Phase II	Firm responsibility (prime or sub?)	Prime
Project number	H.011309.5	Owner's name	LADOTD
Project location	Gramercy, LA	Owner's Project Manager	Li Yang, PE
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, (225) 379-1329, Li.Yang@la.gov		
Services commenced by this firm (mm/yy)	08/19	Total consultant contract cost (\$1,000's)	\$3,319
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm (\$1,000's)	\$2,750

MacArthur Interchange Completion Phase II provides connections between the eastbound direction of the West Bank Expressway (US 90-Z) and the eastbound frontage road near Peters Road and the East Bound Harvey Tunnel. The new ramps will provide access to the US 90-Z from MacArthur Ave. and Destrehan Ave. traffic and to help alleviate traffic congestion at the West Bank Expressway/Manhattan Boulevard intersection.

The Project consists of providing all engineering design services required to construct two separate ramp structures and the relocation of the frontage road in the eastbound direction. Access to the West Bank Expressway from Peters Road and the Harvey Tunnel to be provided by the proposed on-ramp 5M. To accommodate ramp 5M, the existing eastbound Manhattan Boulevard exit ramp is to be removed and a new relocated Manhattan Boulevard exit-ramp 4M is to be provided.

Team: Adnan Elsaad, PE; Osama Elsaad, PE; Sarah Elsawah, PE; James Fussell, PE; Zhiyong Liang, PhD, PE; Andy Rodriguez, PE; Mohsen Shahawy, PhD, PE; Sara Sotoud, PhD, PE; Feng Xie, PE; Sara Sotoud, PE.

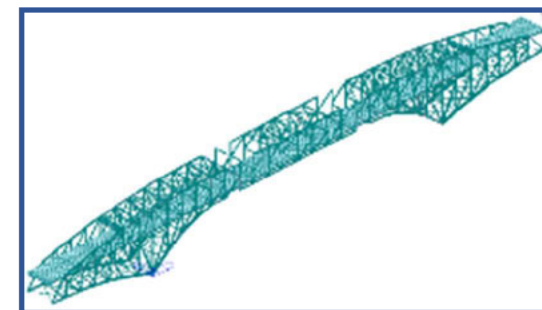
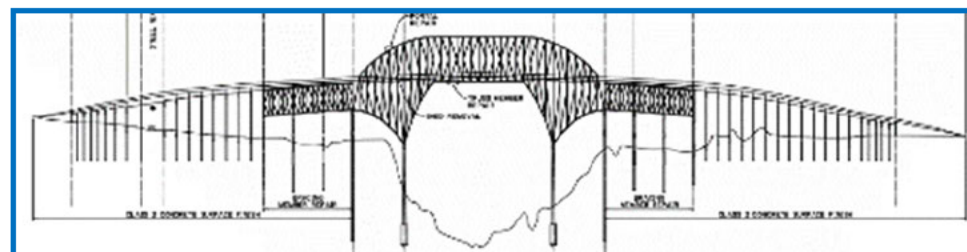


Firm name	SDR Engineering Inc 		Discipline(s)		Bridge	
Project name	US 80 Texas Street over Red River Bridge Rehab				Firm responsibility (prime or sub?)	Prime
Project number	H.011484	Owner's name	LADOTD			
Project location	Shreveport, LA			Owner's Project Manager	Stephanie Doolittle, PE	
Owner's address, phone, email		1201 Capitol Access Road, Baton Rouge, (225) 379-1329, Stephanie.Doolittle@la.gov				
Services commenced by this firm (mm/yy)		11/15	Total consultant contract cost (\$1,000's)			\$962
Services completed by this firm (mm/yy)		04/18	Cost of consultant services provided by this firm (\$1,000's)			\$962

This project was to provide hands-on inspection, load rating, and rehabilitation design for the US 80 Texas Street Bridge over Red River including the truss spans and approach spans. The bridge consisted of a main truss span 884' long, six (6) 102.75' steel deck truss spans, one (1) 91' steel girder span, and 35 reinforced concrete deck girder approach spans of varying span lengths. The major tasks included:

- In-depth inspection of all components of the superstructure and substructure.
- Ultrasonic testing of pins.
- LRFR Load rating utilizing 3-D FE modeling.
- Evaluation of the bridge and determination of proposed scope for rehabilitation.
- Develop final report with rehabilitation recommendations.
- Design of rehabilitation and preparation of construction plans.
- Develop special provisions and construction cost estimate.
- Provide construction support (approving submittals, responding to RFIs, site visits, change orders preparation).

Staff: Adnan Elsaad, PE; Osama Elsaad, PE; James Fussell, PE; Zhiyong Liang, PhD, PE; Mohsen Shahawy, PhD, PE; Feng Xie, PE; Sara Sotoud, PE; Sarah Elsayah, PE.



Firm name	SDR Engineering Inc 	Discipline(s)	Bridge
Project name	Luling Bridge Rehabilitation	Firm responsibility (prime or sub?)	Prime
Project number	H.010498	Owner's name	DOTD
Project location	St. Charles, LA	Owner's Project Manager	Chris B. Guidry, PE
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, (225) 375-1328, Chris.Guidry@LA.GOV		
Services commenced by this firm (mm/yy)	07/13	Total consultant contract cost (\$1,000's)	\$667
Services completed by this firm (mm/yy)	07/15	Cost of consultant services provided by this firm (\$1,000's)	\$667

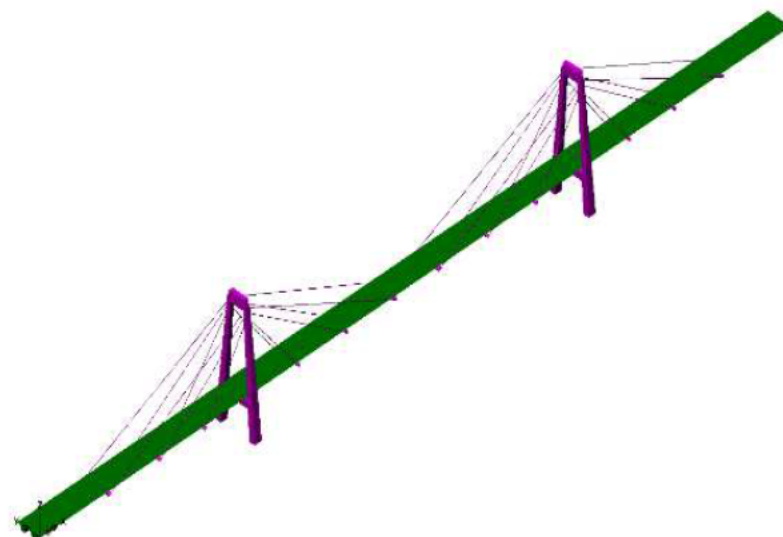
The Luling Bridge (Hale Boggs Memorial Bridge) is a five-span cable-stayed bridge with twin steel towers supporting the cables and a floor beam-stringer deck system. The bridge's orthotropic deck overlay has a history of cracking and spalling starting shortly after the bridge being placed into service. Inspection of the bridge indicated cracks at the connection of a web stiffener to the deck plate, and rocker bearings for approach span support at Pier 1S may have permanent locked inward tilting.

Project Features:

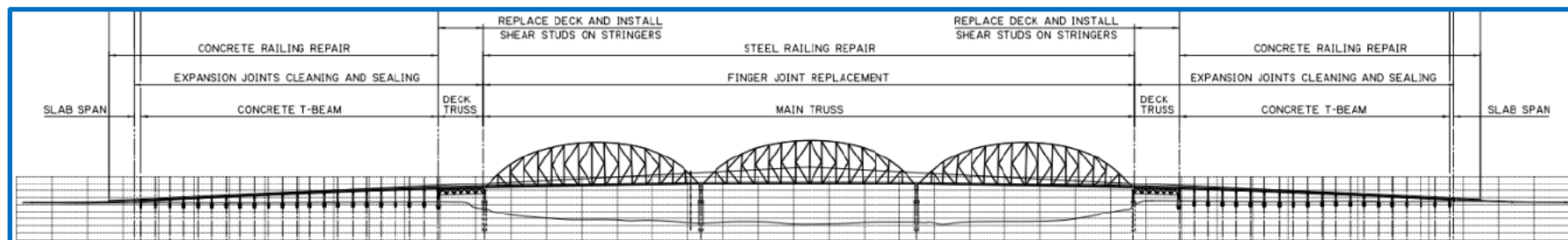
- Investigation of the existing condition of the bridge structure including existing fatigue prone details, and the extent of the existing cracks.
- Load rating of the bridge superstructure using LRFR method in accordance with the DOTD Bridge Load Rating Manual.
- Development of 3-D FE models to investigate the cause of the fatigue cracks.
- Evaluation report with repair recommendations.
- Preparation of the bridge rehabilitation design documents and repair details for the individual required repairs for the bridge structure.
- Development of appropriate construction staging/phasing schemes.
- Cost estimation and schedule.

Team:

Adnan Elsaad, PE; Osama Elsaad, PE; Zhiyong Liang, PhD, PE; Mohsen Shahawy, PhD, PE; Feng Xie, PE.



Firm name	SDR Engineering Inc 		Discipline(s)	Bridge	
Project name	Long-Allen Bridge (LA 182 over Atchafalaya River-Berwick Bay)			Firm responsibility (prime or sub?)	Prime
Project number	H.011487	Owner's name	DOTD		
Project location	Lafayette Parish, LA			Owner's Project Manager	Chris Guidry, PE
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, (225) 379-1329, Chris.Guidry@LA.GOV				
Services commenced by this firm (mm/yy)	10/18	Total consultant contract cost (\$1,000's)			\$946
Services completed by this firm (mm/yy)	02/21	Cost of consultant services provided by this firm (\$1,000's)			\$946



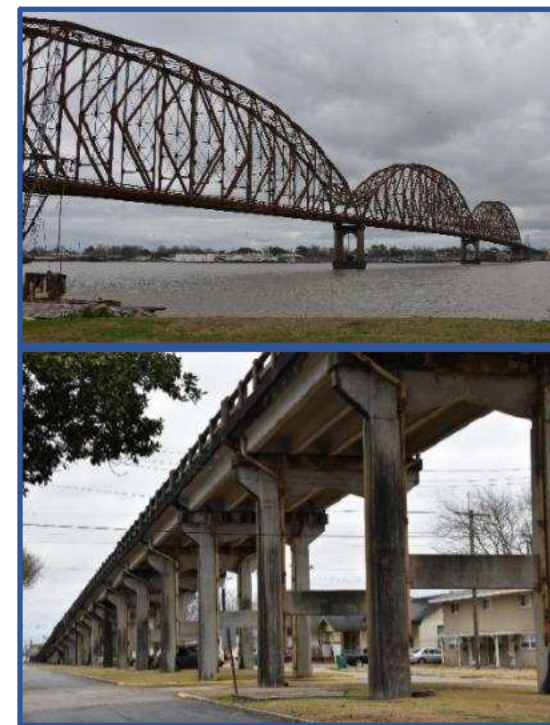
The bridge was built in 1933 and consists of 47 spans with a total length of 3,746'. The approach spans consist of two reinforced concrete slab spans, 40 reinforced concrete T-beam spans, and 2 deck truss spans. The main spans consist of 3 identical through truss spans with span length of 608'. The substructure is comprised of concrete pile bents, two-column concrete bents, and concrete piers. The scope of work includes:

- Inspection of superstructure.
- Load rating of main truss, deck truss, and approach spans.
- Evaluation of superstructure and substructure to determine scope of rehabilitation.
- Diagnostic load test of approach spans using strain gauges and calibration trucks.
- Design rehabilitation and develop construction plans and cost estimate.
- Develop temporary traffic control plans.

Bridge rehabilitation includes cleaning and painting of all steel members, CFRP strengthening of approach slab spans, replacing concrete deck of deck truss spans, heat-straightening of selected truss members, jacking the deck truss and repair of the rocker bearings, replacing finger joints, and supporting beams, cleaning and sealing of expansion joints, repairing concrete railing, applying epoxy-urethane overlay system on roadway, and applying methyl methacrylate concrete sealer on sidewalks.

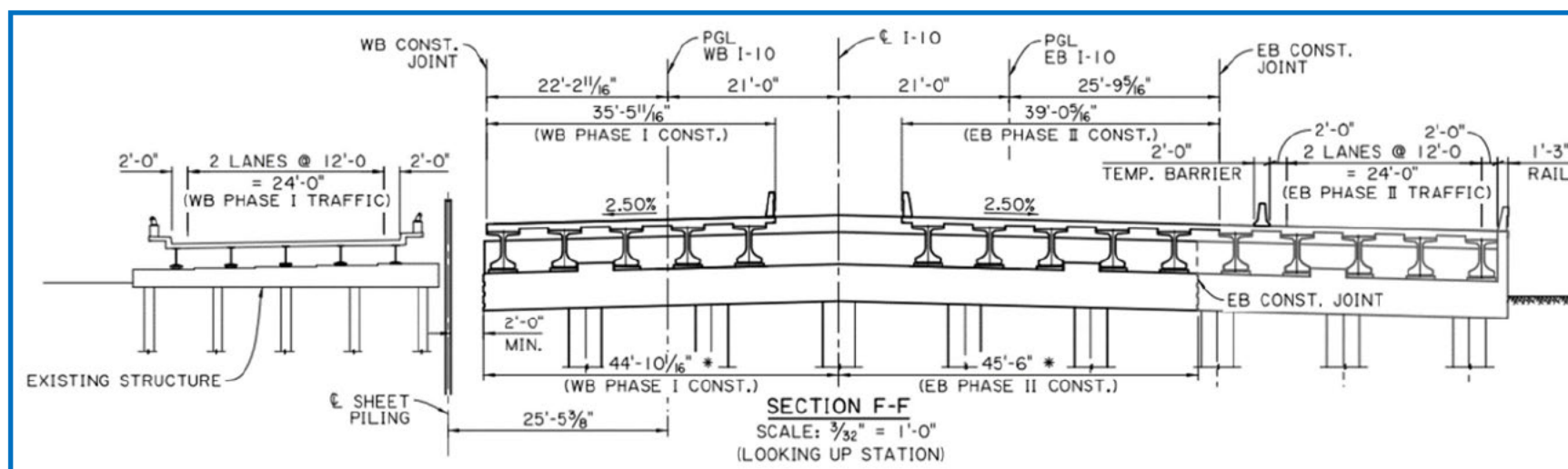
Team:

Adnan Elsaad, PE; Osama Elsaad, PE; Sarah Elawah, PE; Zhiyong Liang, PhD, PE; Andy Rodriguez, PE; Mohsen Shahawy, PhD, PE; Feng Xie, PE; Sara Sotoud, PE; James Fussell, PE .



Firm name	SDR Engineering Inc		Discipline(s)		Bridge	
Project name	I-10 Overpass Over US 165 & MP RR			Firm responsibility (prime or sub?)		Prime
Project number	H.002980	Owner's name	LADOTD			
Project location	Jefferson Davis Parish, LA		Owner's Project Manager		Brian Delatte, PE	
Owner's address, phone, email		1201 Capitol Access Road, Baton Rouge, (225) 379-1329, Brian.Delatte@la.gov				
Services commenced by this firm (mm/yy)		10/16	Total consultant contract cost (\$1,000's)			\$609
Services completed by this firm (mm/yy)		04/21	Cost of consultant services provided by this firm (\$1,000's)			\$609

SDR provided structural design and plans development for the replacement of EB and WB of I-10 overpass US 165 and MP Railroad bridges. Each bridge total length is 765 feet comprising seven (7) spans. Four (4) spans were made one continuous unit, and the other three (3) spans were another continuous unit. Design included all elements of bridge superstructure and substructure along with required slope and embankment work.



The replacement of the bridge involved complex construction phasing to maintain traffic on the interstate while removing the old structure and constructing the new bridges. To ensure design economy and accelerated construction, DOTD standard precast prestressed concrete girders (LG Girders) were used for the superstructure.

Team: Amir Botros, PhD, PE; Adnan Elsaad, PE; Osama Elsaad, PE; Sarah Elsawah, PE; James Fussell, PE; Zhiyong Liang, PhD, PE; Andy Rodriguez, PE; Mohsen Shahawy, PhD, PE; Feng Xie, PE.

Firm name	Ardaman & Associates, Inc. 		Discipline(s)		Geotech		
Project name	I-20 Mississippi River Bridge Review				Firm responsibility (prime or sub?)		Prime
Project number	SP No. H.004646 09-L1049; H.010603.6 13-3720; H.010612.6 20-3729 H.004647.6 22-3746, 22-3753, 24-3707				Owner's name		LADOTD
Project location	Madison Parish, LA			Owner's Project Manager		Chris Nickel	
Owner's address, phone, email		1201 Capitol Access Road, Baton Rouge, LA; 225.379.1100; Chris.Nickel@la.gov					
Services commenced by this firm (mm/yy)			10/09	Total consultant contract cost (\$1,000's)			\$10,881
Services completed by this firm (mm/yy)			Ongoing	Cost of consultant services provided by this firm (\$1,000's)			\$10,881



Ardaman conducted a geotechnical study to develop a list of technically feasible remedial alternatives to decrease the potential for ground movements to occur at the site of the I-20 Bridge. Movement of the east abutment of the bridge was first realized in 2001 during an inspection. Over the years Mississippi DOT has retained several consultants who have studied the problem, but no viable solution was identified. Ardaman conducted a comprehensive review of past slope stability evaluations and recommendations. This task was followed by developing a refined geotechnical site characterization plan for the



bank/bluff area for further analyses. Drilling operations included obtaining extremely sensitive samples containing prehistoric shear planes from the river via barge and on land, all with extremely difficult access conditions. The drilling program also included installation of geotechnical instrumentation such as Shape Accelerator Arrays, inclinometers, and vibrating wire piezometers. Engineering analyses performed included seepage and drawdown analyses and both equilibrium and finite element numerical modeling slope stability analyses. As part of the project, Ardaman developed a full slope stabilization design and construction remediation strategy and a monitoring program for the bluff instability and ground movements affecting the existing I-20 Mississippi River Bridge.

Ardaman is currently managing a phase of the project which involves upgrading the entire instrumentation communication system. It also includes gathering and continuously monitoring various types of instrumentation data, inspects of the site and monitoring changes in topography by obtaining periodic survey data.

Team: **Megan Bourgeois, PE; Robert Jewell, PE; Jarmon King, PE; Casey Floyd; Jessica Litt**

Firm name	Ardaman & Associates, Inc. 		Discipline(s)	Geotech
Project name	IIJA Bridge and Highway Program Districts 05		Firm responsibility (prime or sub?)	Sub
Project number	H.015337	Owner's name	LADOTD sub to Lazenby & Associates, Inc	
Project location	E. Carroll, W. Carroll, Ouachita, Jackson, Lincoln, Madison, Morehouse, Richland, Union Parishes		Owner's Project Manager	Ryan Spillers
Owner's address, phone, email	2000 North 7th St., W. Monroe, LA 71291; 318-387-2710; RSpillers@LazenbyEngr.com			
Services commenced by this firm (mm/yy)	04/2023	Total consultant contract cost (\$1,000's)		-
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm (\$1,000's)		\$408

This program consisted of the replacement of multiple 13 small rural bridges and cross-drain structures across northern and northeastern Louisiana in 9 different parishes. These structures generally include short-span slab bridges and multi-cell reinforced concrete box or pipe culverts located along low-volume parish roads crossing small creeks, bayous, and drainage channels. The existing bridges, often supported on timber piles or corrugated metal pipes are being replaced due to age, deterioration, or structural deficiency. Ardaman & Associates, Inc. (Ardaman) was retained to perform comprehensive geotechnical investigations and engineering evaluations to support LADOTD's final design for each site.

The scope of services for the program included field reconnaissance, boring layout, utility clearance, drilling of 120-foot soil borings, SPT and Shelby tube sampling, groundwater measurements, and an extensive laboratory testing program. Laboratory work included Atterberg limits, grain-size distribution, density, moisture content, hydrometer analyses, and unconsolidated-undrained triaxial strength testing. For bridge sites, Ardaman completed LRFD pile design using FHWA methods, drivability evaluations, and verification criteria using the Modified Gates Formula. For culvert sites, Ardaman performed bearing capacity analyses, settlement modeling using Settle3, and bedding/backfill recommendations in accordance with LSSRB and Standard Plans.

Final deliverables included detailed Geotechnical Data Reports and Geotechnical Interpretation Reports containing subsurface characterization, engineering properties, pile design summaries, culvert foundation recommendations, settlement analyses, and construction guidelines. These comprehensive evaluations provide LADOTD with the geotechnical basis necessary for the safe and economical replacement of multiple rural bridges and culverts throughout the program area.

Team: **Robert Jewell, Megan Bourgeois, Jarmon King, Jessica Litt, Casey Floyd**



Firm name	Ardaman & Associates, Inc. 		Discipline(s)		Geotech	
Project name	US 371: KCS Railroad Overpasses HBI				Firm responsibility (prime or sub?)	Prime
Project number	H.012030	Owner's name	LADOTD			
Project location	Webster Parish, Louisiana			Owner's Project Manager	Hamed Babaizadeh	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA (225)379-1937 Hamed.Babaizadeh@la.gov					
Services commenced by this firm (mm/yy)		07/2023	Total consultant contract cost (\$1,000's)			\$956.8
Services completed by this firm (mm/yy)		Ongoing	Cost of consultant services provided by this firm (\$1,000's)			\$231.4

The project consists of a geotechnical subsurface exploration and recommendations for S.P. No. H.012030, US 371: KC Railroad Overpasses HBI, with the objective of replacing two parallel bridges and one standalone bridge located on US 371 between Minden and Sibley, Louisiana. The bridges cross over Kansas City (KC) Railroad at each site. The standalone bridge near Sibley, LA was later removed from the project to be placed under another state project, however the geotechnical exploration that was performed for this site will be included in this description. The three bridges range from approximately 200 feet to 250 feet in length including 4 bents per bridge supported on drilled shafts with varying diameters.

For the geotechnical exploration phase of work, Ardaman performed 8 soil borings to a maximum depth of 110 feet below existing ground surface (bgs) targeting the proposed bridge foundations on either side of the KC railroad. Two of the soil borings were performed through the existing bridge deck within the ROW of the KC railroad while occupying one lane of US 371. Coordination with temporary traffic control services and the KC railroad temporary constructions requirements was necessary to perform these soil borings.

Engineering services include supervision of the field program, development of the laboratory testing program, quality control review, and development of an interactive geotechnical database to compile all the soil borings. The engineering analyses included drilled shaft design and advanced test shaft program recommendations. A data report, geotechnical interpretation report, and test shaft memorandum were submitted.



Team:

Megan Bourgeois, Robert Jewell, Jarmon King, Casey Floyd, Jessica Litt

Firm name	Neel-Schaffer, Inc. 		NEEL-SCHAFER		Discipline(s)	Traffic	
Project Name	I-10 / 12 College Flyover Ramp Design Build				Firm Responsibility (Prime Or Sub?)		Sub
Project Number	H.013897		Owner's Name	Louisiana Department of Transportation and Development (LADOTD)			
Project Location	Baton Rouge, LA			Owner's Project Manager		Catherine Mastin, PE	
Owner's Address, Phone, Email		P.O. Box 94245, Baton Rouge, LA 70804; (225) 379-1652; catherine.mastin@la.gov					
Services Commenced By This Firm (MM/YY)			08/20	Total consultant contract cost (\$1,000's)			\$971
Services Completed By This Firm (MM/YY)			Ongoing	Cost of consultant services provided by this firm (\$1,000's)			\$971

This project improves the safety and flow of traffic between the I-10/I-12 Split and College Drive by eliminating lane changes that must occur when I-10 WB traffic exits at College Drive. The proposed project realigns the two existing I-12 WB through lanes to more closely follow the I-12 EB existing alignment and replaces the I-10 WB Overpass Bridge with a new structure. In addition, the project physically separates College Drive NB from the free flow lane which connects the I-10 WB exit ramp to Corporate Boulevard. NSI is tasked with performing the traffic engineering and modeling using Vissim and Dynameq software, Interstate Modification Report, Transportation Management Plan (TMP), traffic signal design and is providing the Independent Technical Review for Roadway Design and Traffic Control Plans.

NSI tasks include:

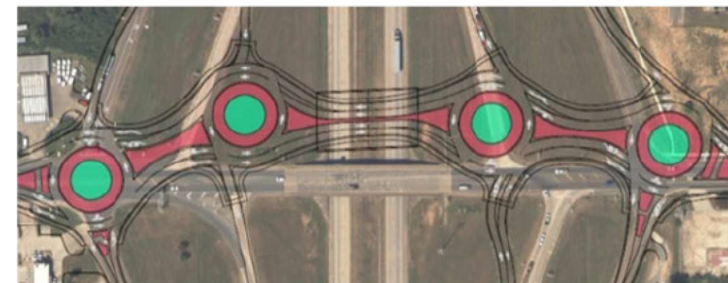
- Field Observations
- VISSIM Modeling
- Prepare the Interstate Modification Report
- Transportation Management Plan (TMP) including Mesoscopic Modeling using Dynameq
- Independent Technical Review (ITR) for the Roadway Design and Traffic Control Plans



Team: Jerry Trumps, Nick Ferlito, Ellen Howard, Dishili Young, Mai Nguyen, Charles Adams, Kirk Gallien, Chuck LeBouef, Vijay Kunada

Firm name	Neel-Schaffer, Inc.	 NEEL-SCHAFER	Discipline(s)	Road
Project Name	H.010616		Firm Responsibility (Prime Or Sub?)	Prime
Project Number	Lincoln Parish, LA	Owner's Name	St. Tammany Parish	
Project Location	Slidell, LA	Owner's Project Manager	Jacob Fusilier, PE	
Owner's Address, Phone, Email	PO Box 94245, Baton Rouge, LA 70804 225.379.1185 jacob.fusilier@la.gov			
Services Commenced By This Firm (MM/YY)	02/20	Total consultant contract cost (\$1,000's)	\$858	
Services Completed By This Firm (MM/YY)	Ongoing	Cost of consultant services provided by this firm (\$1,000's)	\$858	

Neel-Schaffer completed these plans and are currently providing construction support services. NS was responsible for providing the preliminary and final roadway plans, temporary traffic control design, QA/QC, TMP and signal design QA, Sequence of Construction, hydraulic analysis and design, and MOT which maintains access to properties during construction. This project will replace the LA 544 Overpass diamond interchange with a roundabout diamond interchange. The project includes four multilane roundabouts (two entrance/exit ramps at 3% grade), a new bridge over I-20, roadway improvements to I-20 and the ramps, and roadway widening (from 2 to 4 lanes) along LA 544 an urban arterial roadway. The bridge design and retaining wall design will be completed by DOTD. Complex temporary traffic control (13 phases of construction; over 60 pages long) was required due to extreme grade changes and a highly developed corridor.

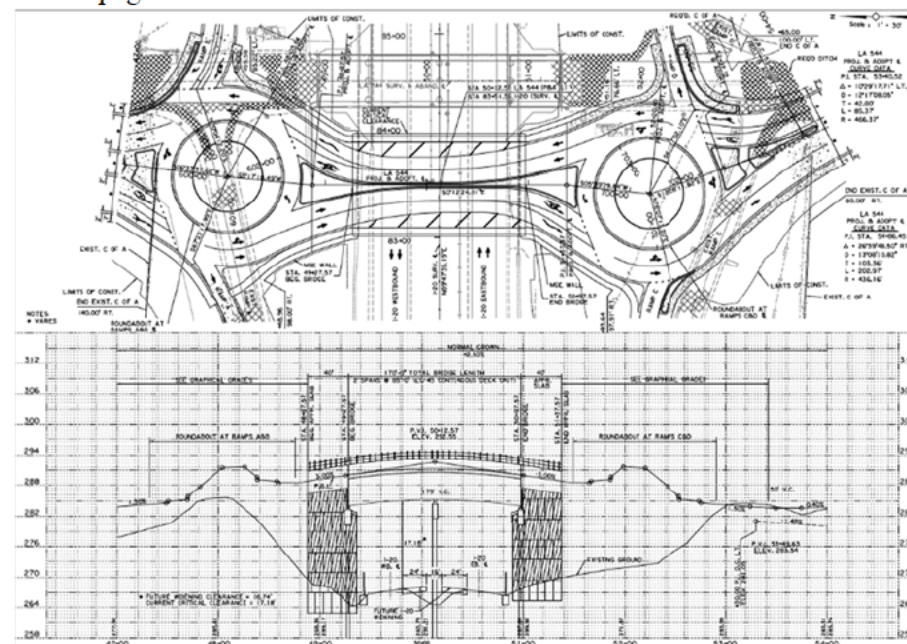


Challenges:

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

Solutions:

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



Team: Dishili Young, PE, PTOE, Mai Nguyen, PE, Chance Shuckrow, PE, Scott Andrepont, PE

Firm name	Neel-Schaffer, Inc.  NEEL-SCHAFER		Discipline(s)		Traffic
Project name	Baton Rouge Northern Bypass Expressway			Firm responsibility (prime or sub?)	Prime
Project number	44-25299, TO #4 (H.016168.1)	Owner's name	Louisiana Department of Transportation and Development (DOTD)		
Project location	Baton Rouge, LA		Owner's Project Manager	Melissa Lebas	
Owner's address, phone, email		1201 Capitol Access Rd, Baton Rouge, LA, 70802, 225-379-1039, melissa.lebas@la.gov			
Services commenced by this firm (mm/yy)		02/25	Total consultant contract cost (\$1,000's)		\$642
Services completed by this firm (mm/yy)		12/26	Cost of consultant services provided by this firm (\$1,000's)		\$612

Neel Schaffer, Inc. (NS) is expanding and refining an existing Dynameq mesoscopic traffic model to support planning level evaluation and conceptual design of the proposed Baton Rouge Northern Bypass as part of the Baton Rouge Urban Renewal and Mobility Plan (BUMP). The effort evaluates current and future traffic operations across the greater Baton Rouge region, including East and West Baton Rouge Parishes, with emphasis on the US 61 and US 190 corridors.

The work includes review of prior corridor studies, evaluation of existing calibrated mesoscopic models, and integration of the Capital Region Planning Commission's MOVE 2046 travel demand model. Comprehensive data collection supports model development, including traffic volumes, turning movements, origin destination patterns, probe based travel time and speed data, and traffic signal inventories. These data are used to establish peak periods and are documented in a formal data collection report.



Using MOVE 2046 outputs, NSI is developing, updating, and validating the base year mesoscopic traffic model, including refinements to traffic analysis zones, roadway networks, intersection controls, and trip matrices. The model is calibrated and validated to observed traffic volumes and travel times along key regional corridors. Future year No Build models are then developed for 2030 and 2046 to reflect planned improvements and forecast travel demand.

The Build modeling effort applies the validated mesoscopic model to evaluate the operational and system level impacts of BUMP expressway concepts under future conditions. Build models are developed for 2046 and analyzed for AM and PM peak periods. The models represent the full BUMP facility, including expressway mainlines, frontage roads, interchanges, and connections to the regional roadway network. Scenarios are evaluated with and without tolling to assess demand, diversion, throughput, bottlenecks, and access needs. Up to 20 “what if” alternatives are tested, with measures of effectiveness used to compare performance and support refinement of final Build alternatives for documentation in traffic analysis reports.

Team: **Nick Ferlito, Vijay Kunada, and Chuck LeBoeuf**

Firm name	Gulf South Research Corporation 		Discipline(s)		Environmental	
Project name	Strategic Biofuels EA for New Construction and Operation of the LA Green Fuels Bio-Refinery			Firm responsibility (prime or sub?)		Prime
Project number	Signed letter contract	Owner's name	Strategic Biofuels, LLC			
Project location	Caldwell Parish, LA		Owner's Project Manager		Paul Oestermeich	
Owner's address, phone, email		303 Wall Street, Columbia, LA 71418; (314) 250-7157; pauloesterreich@strategicbiofuels.net				
Services commenced by this firm (mm/yy)		03/24	Total consultant contract cost (\$1,000's)			\$35
Services completed by this firm (mm/yy)		On-going	Cost of consultant services provided by this firm (\$1,000's)			\$35

GSRC was contracted by Strategic Biofuels (Strategic), LLC to prepare an EA for the construction, operation, and maintenance of the proposed Louisiana Green Fuels (LGF) refinery, including one natural gas pipeline right-of-way (ROW), two carbon dioxide pipeline ROWs, and two injection well pads. The project area is approximately 420 acres located in Caldwell Parish, Louisiana. As part of the EA process, GSRC was responsible for conducting wetland surveys on six individual tracts of land that comprise the refinery facility site as well as the natural gas



pipeline ROW, carbon dioxide pipeline ROWs, and well pads. GSRC was responsible for coordinating with the U.S. Army Corps of Engineers (USACE) to obtain a Preliminary Jurisdiction Determination for four of the tracts of land that comprise the refinery facility site. GSRC also conducted vegetation and protected species surveys. There is one endangered species (Northern long-eared bat), one proposed endangered species (Tricolored bat), one proposed threatened species (Alligator snapping turtle) and a candidate species (Monarch butterfly) known to occur in the area. In accordance with the **Endangered Species Act (ESA)**, critical habitat was researched, however was not found within the project site. GSRC was also responsible for conducting **Phase I Cultural Resources** surveys for the same areas in which the wetland delineation surveys were performed. **GSRC was responsible for conducting Section 106 consultation with the Louisiana State Historic Preservation Officer (SHPO)** to obtain concurrence on GSRC findings. The associated studies were performed under separate work orders.



GSRC prepared the Draft EA in compliance with the National Environmental Protection Act (NEPA) and current Council on Environmental Quality's (CEQ) guidelines. As part of the EA process, GSRC was responsible for submitting the coordination letters to federal, state, and local agencies and affected Native American tribes. The purpose of these letters was to obtain any information or data these groups may have on potentially affected resources in the project's Region of Influence. Mr. Howard Nass is the project manager for this project and is responsible for project finances, scheduling, project coordination, oversight of associated studies, and preparation of the EA. He is also responsible for coordinating with federal, state, and local agencies during the preparation of the EA. **Mr. John Lindemuth was the Cultural Resources Principal Investigator for the Cultural Resources investigations and Mr. Mark Hawthorn was the archaeological field technician. Howard Nas was the project manager; Beau Rapier and Ross Hackbarth conducted the wetland delineations and endangered species surveys.**

Environmental and other (cultural resources)

Firm name	Gulf South Research Corporation 		Discipline(s)	Environmental
Project name	Environmental Assessment (EA) and Environmental Baseline Survey (EBS) for Multiple Projects at Columbus Air Force Base, MS		Firm responsibility (prime or sub?)	Prime
Project number	80700311	Owner's name	USACE, Mobile District	
Project location	Columbus Air Force Base, Mississippi		Owner's Project Manager	Sandy P. Gibson
Owner's address, phone, email	109 St. Joseph Street, Mobile, AL 36602; (251) 694-4099; sandy.p.gibson@usace.army.mil			
Services commenced by this firm (mm/yy)	09/20	Total consultant contract cost (\$1,000's)		\$219
Services completed by this firm (mm/yy)	09/22	Cost of consultant services provided by this firm (\$1,000's)		\$219

GSRC was contracted by the USACE, Mobile District, to complete an EA to evaluate the potential environmental consequences associated with anticipated facility enhancements and land use modification projects at Columbus Air Force Base (CAFB) to provide and maintain infrastructure required to support the needs of the 14th Flying Training Wing (FTW) and its tenants. The proposed projects included the replacement and construction of the Physical Fitness Center, replacement and construction of the Water Storage Tank, and permanent placement of fill material into the Strategic Air Command (SAC) Lake. **An architectural historian from GSRC visited CAFB** to evaluate the eligibility potential of Buildings 704, 842, and 9311. After research and analysis, GSRC recommended that none of the evaluated buildings are eligible for listing in the National Register of Historic Places (NRHP). Supporting studies included an analysis of historic architectural resources, wetland delineation, biological resources survey, Phase I Environmental Baseline Survey (EBS) for the acquisition of 118.2 acres, and air quality and noise analyses.

The wetland survey that GSRC conducted resulted in concurrence from the USACE, Mobile District (Regulatory Division) - Birmingham Field Office for a jurisdictional wetland determination for the 3-acre mine pit pond. Additionally, in support of the proposed project activities, the Air Force prepared a Phase I EBS for land acquisition of 118.2 acres abutting the East/South-East property line of CAFB from a private individual to the United States Air Force (USAF). The purpose of this acquisition was to accommodate the necessary lands and setbacks needed to construct a future main security gate into CAFB.

GSRC conducted surveys in compliance with USFWS with Section 7 of the ESA, The Migratory Bird Treaty Act, and the Coastal Zone Management Act. Consultation with the USFWS in accordance with Section 7 of the ESA was completed and no further consultation was required.

The air quality analysis evaluated the potential impacts on ambient air quality resulting from pollutant and greenhouse gas emissions from proposed installation construction activities and post-construction installation activities. Similarly, a thorough noise analysis evaluated both range enhancement and new facility construction activities. Impacts on the noise environment would be significant if conflicting with applicable federal, state, interstate, or local noise control regulations; or resulting in continuous and long-term noise levels at 85 decibels and above, which is the threshold of hearing damage with prolonged exposure. Impulsive noise levels from munitions are considered significant if emissions exceed 115 decibels A-weighted (dBA), and noise levels from construction are considered significant only if levels exceed 65 dBA. The Finding of No Significant Impacts (FONSI) was signed on September 1, 2022. **Howard Nass was the senior reviewer, Beau Rapier conducted endangered species and migratory bird surveys, and John Lindemuth and Mark Hawthorne conducted the cultural resources surveys.**

Environmental and other (cultural resources)

Firm name	Gulf South Research Corporation 		Discipline(s)		Environmental
Project name	Mississippi River Bridge South: LA1 to LA30 Connector, Iberville Parish, Louisiana			Firm responsibility (prime or sub?)	Sub
Project number	80883001	Owner's name	Atlas Technical Consultants LLC		
Project location	Iberville Parish, Louisiana		Owner's Project Manager	Anna Choudhuri	
Owner's address, phone, email	8440 Jefferson Hwy, Suite 400, Baton Rouge, LA 70809; 877-215-4321; ananya.choudhuri@oneatlas.com				
Services commenced by this firm (mm/yy)	6/7/2024	Total consultant contract cost (\$1,000's)			\$413
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm (\$1,000's)			\$413

GSRC was contracted by Atlas Technical Consultants, LLC to conduct a terrestrial cultural resources investigation for three proposed bridge crossing and alignments for the Mississippi River Bridge (MRB) South: LA1 to LA30 Connector in Iberville Parish, Louisiana. The total Area of Potential Effect (APE) for the terrestrial survey was 1,716 acres. A visual APE for standing structures was set at a 0.5-mile buffer around the bridges and approaches. Prior to initiation of fieldwork, background and archival research were conducted. Archaeological research conducted within the area consists of academic investigations and contract archaeology. Thirty-one previously conducted archaeological investigations are on file with the Louisiana Division of Archaeology (LADOA) within 1.6 kilometers (km) (1 mile [mi]) of the survey area, twenty of which overlap with the current APE. Of the 52 archaeological sites within a 1-mi radius, one prehistoric site, seven historic sites, and three multicomponent sites are within the APE. Thirty-three previously recorded aboveground resources and four historic properties listed on the National Register of Historic Places (NRHP) (Bagatelle Plantation, Towles-Musso House, Lucky Plantation House, and Bayou Paul Colored School) have been recorded in a 1-mi radius of the project area. Of those aboveground resources, two NRHP-listed properties and eight previously recorded Louisiana Historic Standing Structures are within the 0.5-mi visual APE.

The Phase I terrestrial survey of the MRB South alignments were conducted during multiple field sessions from July 9, 2024, to February 27, 2025, and consisted of a pedestrian survey as well as the excavation of shovel test pits (STPs) at 30-meter (m) intervals across all the alignments. A total of 1,716.4 acres (ac) were surveyed for the project, divided across three proposed alternate alignments with a total of 4,204 STPs excavated out of 7,034 pre-plotted STPs. Archaeological resources recorded during the terrestrial surveys included revisiting and updating three previously recorded archaeological sites, recording seven new archaeological sites, and recording 14 isolated occurrences (IO-1 through IO-14). In addition, eight archaeological sites were located within areas that were previously surveyed for archaeological resources. During the aboveground survey, a total of 87 locations that fell within the visual APE of the MRB South project corridor were surveyed and evaluated. The survey included two NRHP-listed properties (Bayou Paul Colored School and Lucky Plantation House) and eight previously recorded Louisiana Historic Standing Structures. A total of 77 structures were newly recorded. The most common newly recorded styles and forms were Minimal Traditional (21), Wood Frame Vernacular (19), Ranch (19) and Shotgun (4). Such styles and forms were reflective from the Depression era (1929-1939) through the middle twentieth century; however, some resources that date to the early 1900s were not recorded by previous surveys. Newly recorded less-representative styles and forms include: cemeteries (2), industrial (2), miscellaneous styles/forms (6), and no particular style/form (4). GSRC produced the technical report, which outlined the results of the survey and recommendations for all resources found. The report also integrated the results of the submerged survey, which was conducted by another firm contracted by Atlas. **Personnel involved in the project included Mr. John Lindemuth, Dr. Bretton Somers, Mr. Mark Kudron, Ms. Jenifer Davis, and Mr. Jake Vicknair.**



Firm name	T. Baker Smith, LLC 		Discipline(s)		Road	
Project name	US 190: LA 437 - US 190 BUS (PH1)				Firm responsibility (prime or sub?)	Prime
Project number	H.001344	Owner's name	Louisiana Department of Transportation and Development (DOTD)			
Project location	St. Tammany Parish, LA			Owner's Project Manager	Joseph Brown, PE	
Owner's address, phone, email	1201 Capitol Access Rd., Baton Rouge, LA 70802; 225.379.1889; Joseph.Brown@la.gov					
Services commenced by this firm (mm/yy)	12/19	Total consultant contract cost (\$1,000's)				\$1,965
Services completed by this firm (mm/yy)	02/26	Cost of consultant services provided by this firm (\$1,000's)				\$979

Phase 1 of the US 190 widening from LA 437 to US 190 BUS involves asymmetrical urban roadway widening and the design of a new 1,400' long bridge over the Bogue Falaya River to increase the capacity of US 190 from two lanes to four lanes beginning at LA 437 (N. Lee Rd.) and ending at US 190 BUS on the south side of the Bogue Falaya River in Covington, LA. The Phase 1 bridge over the Bogue Falaya River will accommodate future ramps from the LA 21 & US 190 BUS roundabouts onto US 190 westbound.

TBS serves as the Prime Consultant and conducted all roadway design services, including Preliminary and Final bridge and roadway plans, construction support, structural design, bridge load rating, and bridge hydraulic and scour design.

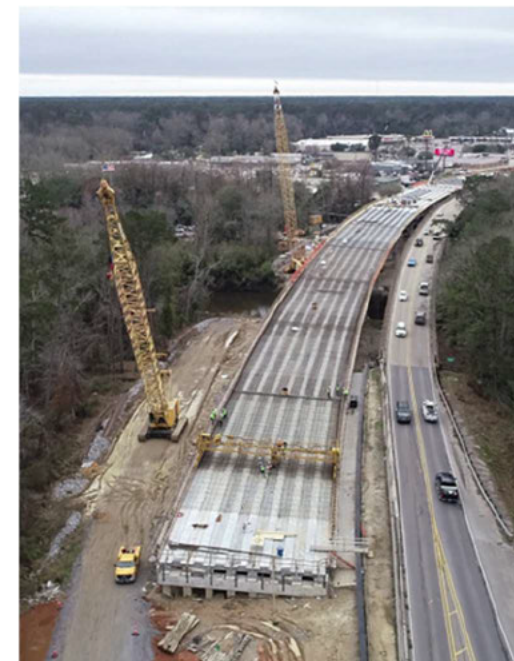
As a part of the roadway approach designs for this urban corridor, TBS provided geometric intersection design for eight intersections through the project length. Three of the intersections required signalized designs and five were stop-controlled. TBS coordinated with the traffic engineering subconsultant to provide the signalized designs and intersection geometry. Raised concrete splitter and channelization islands are designed throughout the project including directional U-turns in the median. Roadway widening design included varying width roadway sections, varying height PGL's from eastbound and westbound sides due to horizontal curvature and superelevation transitions. Additional design elements included subsurface storm sewer network design, site specific commercial drives and grading, traffic management plans, and utility conflict matrix development and utility management.

TBS provided Construction Support through the duration of construction. Construction is complete and the project was opened to traffic in January 2026.

Team: **Kenny Belou, PE; Kelly Radecker, PE; Brady Smith, PE, PMP; Daniel Binet, PE; Lisa Osborne; Branden Kinnaird**

Project Relevance:

- ✓ Urban Roadway Design
- ✓ Roadway for Bridge Approach
- ✓ Intersection Design
- ✓ Utility Conflict Matrix



Firm name	T. Baker Smith, LLC 		Discipline(s)		Road
Project name	US 190 at Northshore and Camp Villere			Firm responsibility (prime or sub?)	Prime
Project number	H.012812	Owner's name	Louisiana Department of Transportation and Development (DOTD)		
Project location	St. Tammany Parish, LA		Owner's Project Manager	Toby D. Picard, PE	
Owner's address, phone, email	1201 Capitol Access Rd., Baton Rouge, LA 70802; 225.379.1302; Toby.Picard@la.gov				
Services commenced by this firm (mm/yy)	02/20	Total consultant contract cost (\$1,000's)			\$547
Services completed by this firm (mm/yy)	12/22	Cost of consultant services provided by this firm (\$1,000's)			\$492

The US 190 at Northshore and Camp Villere project involves upgrading existing signalized intersections at US 190 at Northshore Blvd and US 190 at Camp Villere with roundabouts to improve efficiency and safety along this corridor located in Slidell, LA. Within the project area, Northshore Blvd. is a 4-lane divided urban corridor which intersects with US 190, a 3-lane urban corridor. A three-legged, multi-lane roundabout was designed as the replacement of the existing signalized intersection at this . Avoidance of adjacent commercial properties and the nearby Tammany Trace was held paramount during design. Included within the project, the nearby stop controlled intersection of US 190 and Camp Villere Rd. was replaced with a three-legged single lane roundabout. All roundabouts were designed to accommodate pedestrian movements with 7' berms for future sidewalks and splitter island accessibility. Major subsurface drainage ran parallel to US 190 and Northshore that had to be replaced with the new roadway and roundabout. A major component of the design included the early development of the Construction Phasing Plan. This plan was carefully coordinated with LADOTD, St. Tammany Parish, and LADOTD District 62 and reflected the Parish and District's desire to maintain traffic through the US 190 and Northshore Boulevard intersection.

T. Baker Smith served as the prime consultant on the project providing all roadway design, hydraulic analysis, preliminary and final plan development, a specialized and detailed written construction phasing plan as well as oversight of temporary traffic signalization design for use during construction. TBS has submitted 98% Final Plans to LADOTD in December 2022. LADOTD subsequently placed the project on hold due to funding. TBS expects to submit 100% Final Plans once project resumes.

Team: **Kenny Belou, PE; Kelly Radecker, PE; Lisa Osborne**

Project Relevance:

- ✓ Urban Roadway Design
- ✓ Intersection Design
- ✓ Hydraulic Design
- ✓ Suggested Sequence of Construction



Firm name	T. Baker Smith, LLC			Discipline(s)		Survey	
Project name	Peters Road Bridge & Extension (Ph 3)				Firm responsibility (prime or sub?)		Subconsultant
Project number	H.008069.5		Owner's name	Louisiana Department of Transportation and Development (DOTD)			
Project location	Jefferson & Plaquemines Parishes, LA			Owner's Project Manager		Kurt Brauner	
Owner's address, phone, email		1201 Capitol Access Rd., Baton Rouge, LA 70802, 225.379.1933, Kurt.Brauner@la.gov					
Services commenced by this firm (mm/yy)			09/25	Total consultant contract cost (\$1,000's)			\$3,439.9
Services completed by this firm (mm/yy)			Ongoing	Cost of consultant services provided by this firm (\$1,000's)			\$1,001.6

The Peters Road Bridge project will extend Peters Road (LA 3017) from Jefferson Parish over the Intracoastal Canal and onto LA 23 in Plaquemines Parish. Phase 1 Construction and final design for Phases 2A and 2B have been completed. TBS is providing surveying and NEPA environmental services for Phase 3.

TBS is under contract to provide comprehensive topographic, hydrographic, property, and right of way surveying for the Peters Road Bridge & Extension project, managing a 15,000 foot corridor that traverses developed areas, urban industrial zones, and environmentally sensitive waterways—conditions comparable to those found in dense urban bridge replacement projects.

TBS is performing a full detail topographic survey that captures roadway geometry, drainage systems, utilities, and all structural features required for bridge design, including low chords, piles, bents, and headwalls. Utilizing an in house marine survey group, TBS is collecting bathymetric data across multiple navigable waterways, demonstrating our ability to support bridge foundations, scour analysis, and hydraulic modeling in complex settings.

TBS survey crews team established a deep rod primary control network capable of supporting long span bridge design and multi phase construction sequencing. TBS is coordinating extensively with utility owners through Louisiana 811, integrating field markings and as built data into the survey to reduce conflicts during design and construction—an essential capability for urban corridors with dense underground infrastructure.

TBS will conduct property surveys and prepare Base and Final R/W Maps in accordance with LADOTD standards, including parcel research, monumentation, and preparation of acquisition ready mapping. This experience translates directly to urban bridge projects where right of way constraints, business impacts, and multi parcel coordination are critical.

All deliverables shall comply with DOTD's electronic standards, including MicroStation DGN production, CAD standardization, and structured digital submittals. Our workflow supports large, multidisciplinary design teams and ensures seamless integration into complex bridge design environments.

Team: **Jean Reulet, III, PLS; Kenny Belou, PE; Jeremy Cormier, PLS; Anthony Burns; Branden Kinnaird**

Project Relevance:

- ✓ Topographic Survey
- ✓ Utility Investigation
- ✓ Existing Drainage Map



Firm name	Vectura Consulting Services, LLC VECTURA		Discipline(s)		Traffic
Project name	US 11 (Front St.) at US 190 Bus. (Fremaux Ave.) Traffic Study			Firm responsibility (prime or sub?)	Sub
Project number	N/A	Owner's name	City of Slidell		
Project location	Slidell, LA		Owner's Project Manager	Eric Lundin	
Owner's address, phone, email		250 Bouscaren St. Slidell, LA 70458, 985-646-4320, elundin@cityofslidell.org			
Services commenced by this firm (mm/yy)		9/17	Total consultant contract cost (\$1,000's)		unknown
Services completed by this firm (mm/yy)		11/17	Cost of consultant services provided by this firm (\$1,000's)		\$38.8

Vectura was hired as a sub-consultant to the prime consultant to perform a traffic study for the City of Slidell as part of improvements to the intersection of US 11 (Front St.) at US 190 Bus. (Fremaux Ave.). The goal of the study was to determine if a pedestrian crossing and pedestrian traffic signal heads were warranted. To conduct the pedestrian study, the following tasks were performed by Vectura:

Data Collection

- AM and PM peak hour turning movement counts for five intersections
- AM / PM peak 15-minute turning movement counts for 10 driveways on Fremaux Ave.
- 24-hour traffic approach volumes, speed data, crash history and sight distance for the intersection of US 190 Bus. (Fremaux Ave.) @ US 11 (Front St).
- Weekday and weekend pedestrian counts for the intersection of US 190 Bus. (Fremaux Ave.) @ US 11 (Front St).

Draft Traffic Study

- This task included a Crosswalk Traffic Study for US 190 Bus. (Fremaux Ave.) @ US 11 (Front St.)
- as Per DTOE, Traffic Engineering Manual (TEM) Section 3B.2.9, Section 20.2 & EDSM VI.3.1.6 Section 6.
- This task included the following elements:
- Developed three-year crash analyses
- Performed pedestrian crosswalk warrants as per TEM Section 3B.2.9
- Performed Vistro and HCS analyses for AM and PM Peak existing conditions, Implementation and design year conditions. The analyses included intersection and segment levels of service as well as signal timing and progression for the five intersections.
- Developed traffic study and electronic files. The Study documented how traffic will be routed with the proposed median on Fremaux Ave., the impacts to Front St., and conflict analysis for the crosswalks and pedestrian heads.



Team: **Brin Ferlito, Laurence Lambert, and Bridget Robicheaux**

Firm name	Vectura Consulting Services, LLC VECTURA		Discipline(s)		Traffic	
Project name	I-12 To Bush - LA 3241 (I-12 – LA 36) Corridor Study				Firm responsibility (prime or sub?)	Sub
Project number	H.004957.5	Owner's name	LADOTD			
Project location	Lacombe, LA		Owner's Project Manager	Joachim C Umeozulu, P.E		
Owner's address, phone, email		1201 Capitol Access Road, Baton Rouge, LA 70802, 225-379-1386, Joachim.Umeozulu@la.gov				
Services commenced by this firm (mm/yy)		09/16	Total consultant contract cost (\$1,000's)			\$1,895
Services completed by this firm (mm/yy)		05/17	Cost of consultant services provided by this firm (\$1,000's)			\$84

As part of the DOTD TIMED program, Vectura prepared a formal traffic study for the new alignment of LA 3241. The traffic study examined concepts that improved the safety and efficiency of the roadway consistent with the latest DOTD policies related to access management and complete streets. The study included analyses for intersection (including two interchange ramps) and corridor improvements such as median openings, spacing of openings, signalized, unsignalized and roundabout intersections.

Task 1 Data Collection

Vectura collected the following traffic data for 10 intersections:

- Seven-day (mainlines) and two-day (side streets) 24-hour tube counts with vehicle classification
- Turning movement counts for morning and evening peak periods
- 15-minute driveway counts
- **Traffic signal warrants**, radar speed studies and sight distance evaluation
- Developed growth rate methodology and AM and PM peak forecast traffic volumes using TransCAD data

Task 2 Traffic Study

This task included a roundabout study as defined in EDSM VI.1.1.5, VI.1.1.1 and DOTD Traffic Engineering Manual Section 20.2. This task included the following elements:

- Performed Vistro and Sidra analyses for existing conditions
- Performed Vistro and Sidra analyses for implementation and design years
- Intersection alternatives included restricted median openings, signalized and unsignalized intersections, median U-turns at existing signal locations, restricted crossing U-turn (RCUT) intersections, and roundabouts
- Developed Vissim model of the preferred corridor layout
- Developed draft traffic study report

Task 3 Safety Analyses

- Developed three-year crash analyses report as per DOTD standards

Team: **Brin Ferlito, Bridget Robicheaux, and Laurence Lambert**



Firm name	Vectura Consulting Services, LLC VECTURA		Discipline(s)		Traffic
Project name	I-20: LA 544 Overpass Replacement			Firm responsibility (prime or sub?)	Sub
Project number	H.010616	Owner's name	LADOTD		
Project location	Baton Rouge, LA	Owner's Project Manager	Jacob Fusilier		
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802, 225-379-1185, Jacob.Fusilier@la.gov				
Services commenced by this firm (mm/yy)	04/23	Total consultant contract cost (\$1,000's)			Unknown
Services completed by this firm (mm/yy)	10/23	Cost of consultant services provided by this firm (\$1,000's)			\$131.973

Vectura performed a Level 2 **Traffic Management Plan** (TMP) that included the following activities:

- Preliminary and final traffic studies
- Temporary and final traffic signal plans
- Traffic Management Plan (TMP)
 - 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: **Laurence Lambert, Brin Ferlito, Reece Rodrigue, & Kristen Farrington**

18. APPROACH AND METHODOLOGY:

SDR Engineering provides comprehensive bridge design, replacement, and rehabilitation services, demonstrated by our successful project execution under existing and prior LADOTD IDIQ contracts. Our team possesses proven expertise in designing bridge replacement and rehabilitation projects, encompassing diverse structure types and site conditions, while consistently adhering to LADOTD standards and exceeding expectations.

In addition, SDR boasts a distinguished history of historic bridge rehabilitation, having formulated innovative design solutions for structures of both historical and structural importance. Our team possesses extensive experience in condition assessments, rehabilitation designs, and service-life extensions for historic bridges, demonstrating a comprehensive understanding of relevant preservation principles and regulatory mandates.

SDR possesses a distinguished history of successful project delivery for LADOTD and a highly qualified team of bridge engineers, making us exceptionally well-suited to handle complex bridge projects. Our successful track record with LADOTD bridge projects provides assurance that SDR will deliver consistent, reliable, and high-quality engineering services.

The following table summarizes our subconsultants' qualifications and areas of expertise:

T Baker Smith	Roadway and Survey Services
Ardaman & Associates	Geotechnical Services
GSR Group	Environmental and Permitting Services
Neel-Schaffer	Traffic and TTC
Vectura	Traffic

PROJECT APPROACH

H.012008 – US 71: ICG Railroad Overpass Rehab (HBI):

The project's primary objective is the complete rehabilitation of the existing Caddo Parish structure. This will involve addressing identified section loss, restoring original member properties, and increasing structural capacity to meet the standards outlined in LADOTD BDEM Chapter 6. At the initial stage, our team will review all existing inspection records and conduct a thorough hands-on inspection to establish a precise structural baseline of the bridge. This investigation will utilize ultrasonic testing (UT) to accurately quantify section loss in both the flanges and webs of the structure. The inspection results will be

correlated with existing data to ensure accurate assessment of all deficiencies and to determine the preferred repair strategies.

The bridge, per the current load rating report, exhibits structural deficiencies in its steel stringers, resulting in a posted weight limit of 15–25 tons. Where load rating analysis reveals structural weaknesses, we will employ strengthening methods that minimize aesthetic and physical alterations to the historic structure. The proposed rehabilitation strategy centers on reinforcing the existing steel stringers by installing steel cover plates at locations of highest flexural stress. In addition, identified losses in the flange and web sections will be addressed through localized strengthening and restoration of deteriorated stringers and related components. To improve long-term durability, corroded areas will undergo proper cleaning and treatment, and failing coating systems will be removed and replaced. These actions are designed to restore structural integrity in compliance with the LADOTD BDEM Chapter 6.

The rehabilitation work will adhere to LADOTD requirements, with a focus on performing operations outside the Railroad Right-of-Way to reduce disruptions to rail traffic. For bridge spans over the railroad tracks, access will be achieved using a snoopier truck operating from the bridge deck. To accommodate the snoopier, a temporary single-lane closure will be implemented. This closure will be coordinated with the District Area Engineer and District Traffic Engineer in full compliance with the LADOTD Bridge Inspection Manual.

For spans not located over the railroad, access will be provided using specialized equipment positioned from the ground beneath the structure. This approach allows efficient access while maintaining traffic operations on the bridge where feasible. Given the 23.4-ft vertical clearance and the operational depth of the snoopier bucket, some rehabilitation activities may extend into the 22.5-ft Illinois Central Gulf (ICG) clear envelope. To address this, coordination with ICG will be initiated to obtain the required Right-of-Entry (ROE) permits and flagging services as necessary. This strategy ensures that while primary staging remains on the bridge deck to reduce impacts within the railroad corridor, all work performed within or near the railroad envelope will comply with ICG safety requirements and LADOTD railroad coordination procedures.

Following completion of repairs, we will conduct a final Load Rating Analysis using AASHTOWare Bridge Rating (BrR). A formal Load Rating Report, signed and sealed by a Professional Engineer, will then be submitted to the LADOTD Bridge Maintenance Division.

H.012009 – US 71: Market St Bridge Over ICG RR (HBI)

Bridges Demolition: The demolition of the existing bridges presents several significant challenges. Both bridges span active railway lines and, in two locations, abut directly against adjacent buildings, with one building's access point located on the bridge sidewalk. Additionally, the city maintains an active festival plaza, a high-traffic area utilized for frequent events, which is expected to remain fully operational throughout the construction period.



The presence of buildings with access dependent on the existing bridge introduces an additional layer of complexity. Prior to demolition, we will establish temporary access solutions to ensure continuous access for building occupants and uninterrupted operations. This will involve close coordination with building owners and tenants, along with clear communication regarding access changes and project timelines to minimize disruption.

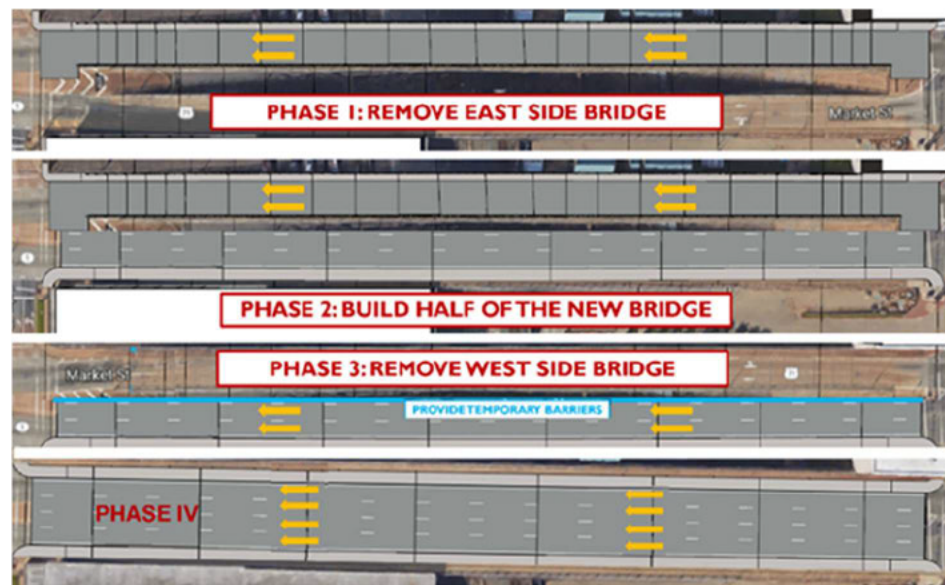
Throughout demolition, we will monitor environmental impacts, including noise and dust levels, and promptly address any issues to maintain compliance and minimize inconvenience. Each demolition stage will be documented through detailed progress reports and photographic documentation to maintain a comprehensive record of activities and facilitate prompt issue resolution.

Due to the proximity of adjacent buildings, careful consideration will be taken to prevent structural damage or disturbance during demolition. Our approach includes structural assessments of nearby buildings, installation of vibration monitoring systems, and establishment of protection zones to mitigate debris impact. Demolition methods will be selected to minimize vibration and noise, potentially utilizing controlled sequential dismantling of critical bridge components.

Phased Construction: The bridge location presents several logistical challenges for the contractor. The structure is surrounded by buildings and is located near two major intersections. In addition, an active city festival plaza and a railway are located nearby. These factors will require careful planning related to material

storage, equipment operation, and traffic management to mitigate potential disruptions.

To address these challenges, our team proposes a phased construction strategy prioritizing minimal disruption to rail operations, worker safety, and adherence to budget and schedule constraints. Our approach incorporates Accelerated Bridge Construction (ABC), utilizing phased construction techniques. This method allows demolition and reconstruction to occur in stages while maintaining continuous rail operations with minimal interruption.



Currently, the driving lanes split and rejoin at the beginning and end of each bridge. Our proposed solution is to replace the two bridges with a single four-lane bridge with sidewalks using phased construction. Phase I involves removing one of the existing bridges while maintaining the other to allow continuous two-lane traffic during construction. This approach minimizes disruption to local businesses and activities within the nearby festival plaza. Traffic management plans will include clearly marked detours and real-time traffic monitoring. Phase II focuses on constructing half of the new bridge. Temporary barriers will divert traffic onto the completed portion, maintaining traffic flow while providing a safe work zone. Phase III includes removing the remaining bridge structure and constructing the second half of the replacement bridge using accelerated construction techniques to maintain schedule. Phase IV represents the final stage, during which temporary barriers are removed and all four lanes are opened to traffic. Throughout all phases, safety, communication, and responsiveness to

unforeseen conditions will remain priorities to ensure successful project completion with minimal disruption to the surrounding community. A successful methodology necessitates meticulous planning and robust coordination, commencing with comprehensive site surveys and thorough geotechnical investigations to inform detailed construction sequencing plans.

Employing precast or prefabricated bridge components offers a significant advantage, accelerating on-site assembly and drastically shortening on-site construction timelines, thereby minimizing disruption to rail operations. Our phased construction approach prioritizes robust traffic management plans governing the flow of both rail and vehicular traffic throughout the project. Close collaboration with railway operators is paramount to the success of any traffic management strategy. Frequent and proactive communication, advanced scheduling, and the establishment of pre-agreed-upon work windows are crucial to minimizing delays and ensuring the safety of all personnel and the public. The bridge plans will address all of these issues proactively to ensure seamless construction and prevent unnecessary delays.

Bridge Replacement: The maximum slope of the existing bridge currently exceeds the DOTD standard of 5%, with a measured maximum slope of 6.3%. The vertical clearance above the active rail tracks presents a second significant challenge. The existing clearance of 22'-8 1/2" falls short of the current railroad requirement of 23'-6" and the DOTD requirement of 24'-0". Further, the existing bridge's pier support is located between the rail tracks; therefore, it is necessary to extend the span length above the rail tracks to remove this supporting pier. These existing conditions will require careful consideration during the initial design phase, with the final configuration of the new bridge intrinsically linked to these demanding requirements.

To address these issues, a multi-faceted approach must be employed, exploring multiple design options, each with its own cost implications and potential impacts on the surrounding community. For example, increasing the bridge's vertical clearance may require raising the entire structure, which could necessitate extensive foundation work and potentially impact adjacent properties. Conversely, reducing the bridge's slope may necessitate extending the approach ramps, potentially impacting existing roadways and businesses.

Therefore, the design team must undertake a comprehensive evaluation of these options, including detailed cost analyses, community impact assessments (addressing noise, traffic, and aesthetic considerations), and environmental impact studies. Deviating from current design requirements will require obtaining exemptions and careful evaluation and a thorough risk assessment. The

design team must then proactively engage in collaborative discussions with DOTD, the railroad, and city officials to ensure the chosen design meets all regulatory requirements and stakeholder preferences. This collaborative approach is paramount to the successful completion of a bridge replacement project that satisfies all safety, performance, and community-related objectives.



Effective coordination with railroad authority is paramount to successful bridge replacement. This coordination will involve several critical steps. First, we will establish a dedicated point of contact (POC) within our project team and the railroad authority. This POC will be responsible for all communication, scheduling, and issue resolution related to the project. Second, we will develop a comprehensive work plan that details every aspect of the bridge replacement process, including the specific times and durations of all activities that may impact rail operations. This plan will be submitted to the railroad authority for review and approval well in advance of the scheduled work. Third, we will meticulously adhere to all railroad safety regulations and guidelines.

ROAD DESIGN AND SURVEY SERVICES

T. Baker Smith, LLC (TBS) is a Louisiana-based, multi-disciplinary engineering and surveying firm with over a century of experience delivering transportation infrastructure projects across the state. TBS's team possesses extensive experience collaborating with the Louisiana Department of Transportation and Development (LADOTD), including close coordination with the Location & Survey, Road Design, and Bridge Design Sections. This experience allows TBS to efficiently develop deliverables that meet all LADOTD standards and expectations. TBS will support SDR Engineering, Inc. on the US 71 project by providing comprehensive topographic surveying and urban roadway design services to facilitate the rehabilitation and replacement of the existing structures crossing the ICG Railroad. TBS understands that projects involving railroad crossings in urban environments require careful coordination between roadway geometry, bridge approach profiles, railroad clearance requirements, and

adjacent infrastructure constraints. TBS will perform a detailed topographic and utility survey capturing roadway geometry, drainage infrastructure, utilities with depths, and all existing buildings and improvements within the defined project area. TBS will develop roadway design elements that integrate seamlessly with the proposed bridge improvements and satisfy LADOTD geometric requirements. Particular attention will be given to right-of-way limitations within this highly urban corridor.

TBS possesses significant experience providing LADOTD survey services and roadway design for complex bridge and corridor projects, encompassing urban widening and bridge approach design. As the prime consultant on the US 190 widening project in St. Tammany Parish, TBS delivered comprehensive roadway and bridge design, including the design of bridge approaches and adjacent intersections within this urban corridor. TBS's survey team has also provided support on significant bridge projects such as the Peters Road Bridge and Extension Phase 3 project, which involves the highly developed Peters Road corridor near the future Intracoastal Waterway crossing. Utilizing this proven experience, TBS will implement a collaborative workflow, adhering to LADOTD standards, specifically the Location and Survey Manual and the Roadway Design Procedures and Details Manual, to ensure seamless integration of survey data and roadway design with bridge design development.

GEOTECHNICAL SERVICES

Ardaman & Associates, Inc. provides geotechnical engineering services for Louisiana transportation and infrastructure projects, specializing in soft soil conditions. They perform LADOTD-compliant geotechnical investigations, including subsurface exploration, site characterization, laboratory testing, and geotechnical reporting. Their projects are led by experienced geotechnical professionals, and their Baton Rouge lab is AASHTO (AMRL & CCRL), USACE, and LELAP accredited, ensuring reliable data for bridge foundation design.

Ardaman will conduct a geotechnical investigation, including subsurface exploration, soil borings, sampling, and laboratory testing, to inform bridge rehabilitation/replacement design. Deliverables include soil boring logs and a geotechnical data report with foundation recommendations and design parameters, coordinated with the project team.

TRAFFIC SERVICES

Neel-Schaffer, Inc. and Vectura Consulting Services, LLC will provide the traffic engineering services for this project. Neel-Schaffer is a multidisciplinary engineering firm with extensive experience in transportation planning, bridge engineering, and traffic operations for state DOTD projects, including complex bridge rehabilitation and replacement in constrained urban environments.

Vectura is a Louisiana-based transportation engineering firm specializing in traffic studies, data collection, traffic modeling, and operational analysis, with significant experience supporting LADOTD projects. Together, the team brings strong technical expertise and local knowledge to support the traffic study for the rehabilitation and replacement of historic bridges in a busy urban corridor.

The team will perform a detailed traffic analysis to assess current conditions, predict future traffic volumes, and evaluate project alternatives. This will encompass a review of the LADOTD mesoscopic model, supplemented by targeted traffic data collection, and analysis of existing, no-build, and alternative scenarios using DOTD-approved software. The team will prioritize the evaluation of detour routes, construction staging impacts, and safety protocols to minimize disruption and maintain safe and efficient traffic flow in this high-traffic urban environment.

ENVIRONMENTAL AND PERMITTING SERVICES

GSRC provides comprehensive environmental and permitting services for LADOTD projects, covering all phases from assessment to final permits. We manage permits including 404/Section 10, water quality, and US Coast Guard Bridge. Our team conducts required environmental investigations and documentation for project clearance, preparing Categorical Exclusions (CE) or Environmental Assessments (EA) based on impact levels, ensuring compliance and timely delivery.

PROJECT MANAGEMENT AND SCHEDULE

SDR is committed to providing exceptional project management, ensuring our approach directly supports LADOTD's objectives. Dr. Zhiyong Liang, our Project Manager with extensive experience managing similar DOTD retainer contracts, will lead the project. Dr. Liang will facilitate regular coordination with the DOTD Project Manager and subconsultants, fostering transparent communication, prompt decision-making, and efficient progress. This includes proactive issue identification and mitigation strategies to keep the project on schedule and within budget.

At project initiation, SDR will collaborate with DOTD to develop a Project Management Plan (PMP) that defines project scope, key milestones, coordination needs, and quality control procedures. The PMP will guide project execution and be actively maintained throughout the project lifecycle. SDR will also develop and monitor the project schedule to support major milestones, including data collection, preliminary design development, and plan submissions. Close coordination with subconsultants will ensure that survey, geotechnical, permitting, and traffic tasks are completed on schedule, supporting efficient delivery of project milestones and compliance with DOTD standards.

19. WORKLOAD:

Firm(s) ALL FIRMS MUST BE REPRESENTED IN THIS TABLE	Discipline(s) *	Contract Number and State Project Number	Project Name	Remaining Unpaid Balance**
SDR Engineering Inc 	Bridge	44-21595, H.009859	Load rating of 32 bridges	3,793
		44-31060, H.01248	Load rating of 117 bridges (off-system):	164,686
		44-30996, H.011487	Berwick Bay Bridge Rehab (Construction Support)	3,836
		44-30996, H.010015	H.010015.5 -LA 143 BAYOU D'ARBONNE BRIDGE	3,148
		44-30996, H.012028	I-20: LAKE SHORE DRIVE/KCS OVERPASS REHAB (Phase I)	40,410
		44-27650, H016525	H.016525.5-US 80: MILE CREEK BRIDGE REPAIR	33,950
		44-4128; H.004273	I-49 Connector, Lafayette	183,132
		44-18899; H.004791	LA 23: Belle Chasse Bridge & Tunnel (HBI)	22,508
		44-19013; H.004100.5 & .6	I-10 CMAR Design Continuation: LA 415 TO ESSEN ON I-10 & I-12	540,869
Ardaman & Associates, Inc. 	Geotech	H.004435	I-12 to Bush Construction Phase	37,900
	Geotech	44-8671; H.009266	I-10 Widening: LA 73 to LA 30	25,760
	Geotech	44-19013; H.002244.5	Boudreaux Canal Bridge (LA 56)	180
	Geotech	44-17438; H.013284	MRB GBR LA 1 to LA 30 Connector	2,781

	Geotech	44-6189; H.004647.6	I-20 Mississippi River Bridge at Vicksburg	1,377,611
	Geotech	44-25025; H.015337, H.015452, H.015453, H.015454, H.015455, H.015456, H.015457, H.015458, H.015459, H.015460, H.015461, H.015462, H.015463	IIJA	36,932
	Geotech	44-24652; H.014265.5	N River Road Irving Branch	65
	Geotech	44-24652; H.012533.5	LA 1252 Bayou Pt Brule Bridge	39
	Geotech	44-24652, H.012607.5	Henderson Bayou Bridge LA 933	65
	Geotech	44-24652, H.015568.5, H.015569 HH.01H.015569.5	Pelican Point Roundabout	348
	Geotech	44-24652; H.012842.5	LA 124 Ext. Larto Lake	152
	Geotech	44-21519; H.012030.5	KCS RR Overpasses US 371	38,876
	Geotech	44-21887; H.012542, H.012453, H.012544, H.012047	Replacement of 15 Bridges	300,380
	Geotech	44-6189; H.016313.5, H.016314.5, H.016315.5, H.016316.5, H.016317.5, H.016318.5, H.016319.5, H.016320.5, H.016325.5	Culvert Replacements	31,997

	Geotech	H.015429, H.015430, H.015432	IIJA	3,192
	Geotech	H.001798	LA 531: Bridges Near Dubberly	16,276
	Geotech	H.004100.5	I-10 CMAR Borings: LA 415 TO ESSEN ON I-10 & I-12	638,894
	Geotech	H.06094.5	US 371 Brushy Creek Bridge	127,527
	Geotech	H.016204.5	Benton Sidewalks and RR Xing	32,218
	Geotech	SPN 736-99-1548	Travel Demand Model Support Services Statewide (PRIME)	43,608
	Geotech	4400010428 EWL 3, H.004774.5; H.007300	Kansas Lane: Garrett Road Connector and I-20 Improvements (SUB)	N/A
	Geotech	4400010428 EWL 6, H.004774.5; H.007300	Kansas Lane: Garrett Road Connector and I-20 Improvements (SUB)	N/A
Neel-Schaffer, Inc. 	Planning	4400010428 S.A. 6, H.004774.5; H.007300	Kansas Lane: Garrett Road Connector and I-20 Improvements (SUB)	163,075
	ITS	4400015733, H.972374.1	Local Public Agency Documented Planning Process, Statewide	17,644
	Traffic	4400017293, H.010616	I-20: LA 544 Overpass Replacement	11,376
	Traffic	440005459, H.004780.5	Kansas Lane Connector, S.A. #6	552
	Planning	4400017438, H.013284	MRB South GBR: LA 1 to LA 30 Connector, Ascension, EBR, Iberville & WBR	74,218
	Road	4400018271, H.014746.1	LA 383 Corridor Study	7,953
	ITS	4400018271, H.014746.5, SA #2	LA 383 Corridor Study	N/A

	Traffic	4400018271, H.014746.1	LA 383 Corridor Study	88,353
	Traffic	4400021094	Update Statewide Transportation Plan and Travel Demand Model	525
	Traffic	4400026458, H.014710.5	Cedar Street Ext. to LA 22 and Roundabout	23,473
	Planning	4400024927, H.015226.5, S.A. #2	US 90: Roundabout at LA 101, S.A. #2 (on hold and should not count as backlog)	N/A
	Planning	4400025299, H.013421.5	Dist. 02H Flashing Yellow Arrow Part 2	N/A
	Traffic	4400025299, H.015645.5	LA 47 Hayne Blvd Safety Improvements	18,976
	Road	4400025299, H.016168.1	Baton Rouge Northern Bypass Expressway	220,195
	Traffic	4400024927, H.014366.5	LA 621 Realignment at LA 73 (on hold and should not count as backlog)	324,142
	Traffic	4400024927, H.014366.5	LA 621 Realignment at LA 73 (on hold and should not count as backlog)	66,649
	Traffic	4400023689, H.013622.5	LRSP Ardenwood Dr. Road Diet	N/A
	Road	4400023689, H.013622.5	LRSP Ardenwood Dr. Road Diet	1,696
	Traffic	4400023689, H.013622.5	LRSP Ardenwood Dr. Road Diet (awaiting NTP for design and should not count as backlog)	118,210
	Traffic	4400024927, H.009425.5	LA 16: N 2nd St. to E. of Duncan Ave. (on hold and should not count as backlog)	140,576
	Planning	4400025299, H.015986.5	I-49 at LA 3233 (Harry Gilbeau Road) Traffic Study	49,545
	Road	4400023689, H.015574.5	LCG FYA Signal Improvements Phase 2	188,823
	Road	4400031591, H.015574.5	LCG FYA Signal Improvements Phase 2	240,503

	Traffic	4400031591, H.015574.5	LCG FYA Signal Improvements Phase 2	11,951
	Road	4400027987, H.015373.1	LRSP and SRTTP Program Management	498,953
	Traffic	4400024927, H.016158.5	LA 182: Greenwood St. Overpass (on hold and should not count as backlog)	10,190
	Road	4400028585, H.014516.5	Mills Ave & Rees St Intersection Imp	75,362
	Traffic	4400023689, H.015227. S.A. #1	US 61 @ Victoria Dr. Ped Crossing, S.A. #1	3,801
	Other (Program Management)	4400029436, H.011504.6	Alexandria Phase 2 Technical Support	24,767
	Road	4400029436, H.016447.1	DMS Decom & Updates SEA	396
	Traffic	4400029436, H.015136.1	Monroe ITS Architecture	57,708
	ITS	4400029441, H.011446.6	Mound Rest Area Renovations	54,001
	ITS	4400029441, H.015218.5	Grand Prairie Safety Rest Area Lighting	16,096
	ITS	4400029441, T.O. #3	Butte LaRose Rest Area Lighting	3,540
	CE&I/OV	4400025299, H.014305.1	US 61: Cardinal Drive to Bert Street	152,991
	Other (Electrical)	4400025299, H.016437.5	US 190: Wooddale to Livingston P/L	112,317
	Other (Electrical)	4400024927, H.015640.5	LA 159 & LA 818: Roundabout	391,570
	Traffic	H013284	Mississippi River Bridge South Central	1,400
	Traffic	H.011358	US190 Vine Street Reconstruction	180,208
	Road	H.003771	I-10 at LA 74	88,066

Gulf South Research Corporation 	Environmental	4400013407 / H.013199	Country Estates Dr. Over St. Louis Bayou	799
	Environmental	4400019336 / Multiple S.P. No's	Rural Bridge Replacement Initiative Phase II	2,957
	Environmental	4400025027 / Multiple S.P. No's	IIJA Off-System Bridge Program	35,116
T. Baker Smith, LLC 	Bridge	4400025760 / H.011137	I-12: LA 1077 to LA 21 (CE&I)	533,124
	Bridge	4400019336 / Multiple S.P. No's	Rural Bridge Replacement Initiative Phase II	13,804
	Bridge	4400025027 / Multiple S.P. No's	IIJA Off-System Bridge Program	40,849
	CE&I/OV	4400031920 / H.008069	Peters Road Bridge & Extension (Phase 3)	207,770
	Environmental	4400013203 / H.001344	US 190: LA 437 to US 190 Bus (Ph 1)	10,984
	Environmental	4400025027 / Multiple S.P. No's	IIJA Off-System Bridge Program	102,090
	Environmental	4400019336 / Multiple S.P. No's	Rural Bridge Replacement Initiative Phase II	9,992
	Other (Construction Support)	4400025027 / Multiple S.P. No's	IIJA Off-System Bridge Program	30,812
	Other (Construction Support)	4400013407 / H.013199	Country Estates Dr. Over St. Louis Bayou	750
	Other (Contract Management)	4400019336 / Multiple S.P. No's	Rural Bridge Replacement Initiative Phase II	2,925

	Other (Contract Management)	4400025027 / Multiple S.P. No's	IIJA Off-System Bridge Program	59,477
	Road	4400024928 / H.015576 (Task Order #1)	LA 447 @ LA 1025: Roundabout	15,243
	Road	4400024928 / H.015587 (Task Order #3)	LA 3211 @ Yokley Road Roundabout	151,162
	Road	4400024298 / H.016095 (Task Order#4)	LA 70 Rehab: Marguerite St to US 90	36,808
	Road	4400024928 / H.015485 (Task Order #6)	LA 3187: LA 13 - LA 13	129,892
	Road	4400024928 / H.010795 (Task Order #7)	LA 42: Roundabout at Joe Sevario Road	108,291
	Road	4400025027 / Multiple S.P. No's	IIJA Off-System Bridge Program	19,531
	Road	4400021973 / H.011242	LA 384 (Big Lake Rd to McNeese St)	718,296
	Road	4400024928 / H.015485	LA 3187: LA 13 - LA 13	171,137
	Survey	4400020018 H.007160	EBR Computerized Traffic Signal, Ph VB	23,595
	Survey	4400021519 H.012030.5	KCS RR Overpasses HBI	572
	Survey	4400025299 H.01564.5	LA 47 Hayne Blvd Safety Improvements	9,437
Vectura Consulting Services, LLC VECTURA	CE&I/OV	4400018271 H.014746.5	LA 383 Stage 0 Corridor Study	20,146
	Traffic	4400025299 H.014305	US 61: Cardinal Dr to Bert St	44,311

	Traffic	4400026026 H.016037	LA 1138-1 & LA 1138-2: Corridor Improvements	142,847
	Traffic	4400025299 H.016437.5	US 190: Wooddale to Livingston P/L Study	120,040

DO NOT SUM

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

** Round to the nearest dollar. **Do not** round to the nearest thousands. If there are no active contracts with a remaining unpaid balance, 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:**Mohsen Shahawy, PhD, PE**

**Mead
& Hunt**

In cooperation with the
Louisiana Department of Transportation & Development
presents this

Certificate of attendance and participation for:

Mohsen Shahawy

Training Course:
Maintenance and Rehabilitation of Historic Bridges

Transportation Training and Education Center
4099 Gourrier Avenue, Room 175
Baton Rouge, Louisiana 70808

Please select the date you attended the course:

- ☐ Tuesday, April 12, 2016
- ☐ Wednesday, April 13, 2016
- ☐ Tuesday, May 10, 2016
- ☐ Wednesday, May 11, 2016
- ☒ Tuesday, June 7, 2016
- ☐ Wednesday, June 8, 2016

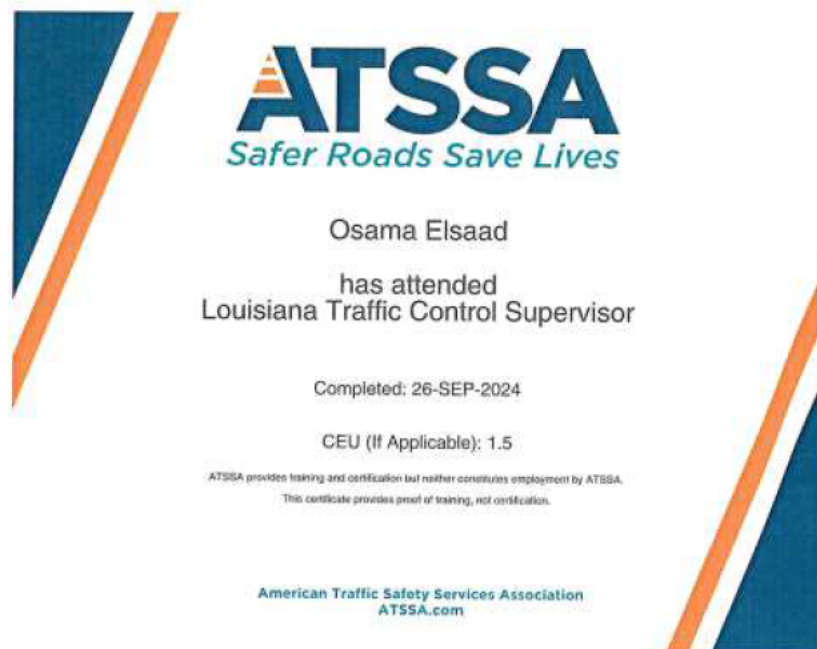
You have earned 8 PDH units that can be applied to applicable
continuing education requirements for professional engineering
licensure.

Amy P. Squitieri
Mead & Hunt Instructor
Amy Squitieri

Darrell G. Berry
Mead & Hunt Instructor
Darrell Berry, PE, SE

Zhiyong Liang, PhD, PE





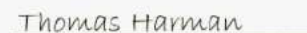
Feng Xie, PE



National Highway Institute



Certificate of Training

FENG XIE*has participated in****FHWA-NHI-130056 Safety Inspection of In-Service Bridges
for Professional Engineers****hosted by****LA DOTD/LTRC****Date:* October 11-15, 2021*Hours of Instruction:* 34*Location:* Baton Rouge, LA
Instructor
Local Coordinator
Instructor
Thomas Harman, Director
National Highway Institute



Andres Rodriguez, PE



Megan Bourgeois, PE



Robert Jewell, PE



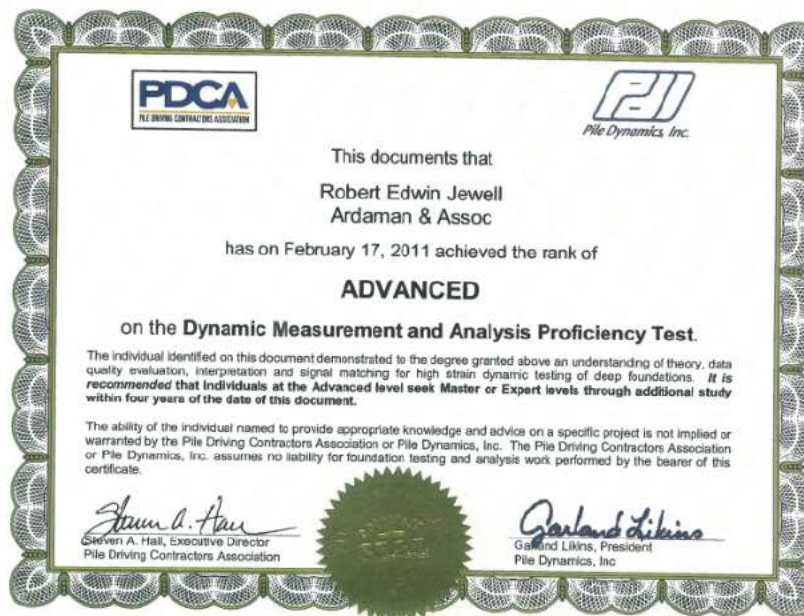
Robert Jewell
has attended
Louisiana Traffic Control Supervisor Refresher

Completed: 23-AUG-2024

CEU (If Applicable): 0.75

ATSSA provides training and certification but neither constitutes employment by ATSSA.
This certificate provides proof of training, not certification.

American Traffic Safety Services Association
ATSSA.com



Jarmon King, PE



Casey Floyd



**ATSSA
TRAINED**

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Casey Floyd
has attended
Louisiana Traffic Control Supervisor
Training Course

9/6/2023 to 9/6/2027
Training Valid Through

Baton Rouge, LA
Location

Don H. Clark
Vice President of Education and Technical Services

Sharon T. Tabor
President, CEO

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

ATSSA
American Traffic Safety Services Association ATSSA.com

ATSSA
American Traffic Safety
Services Association

This is to affirm that

CASEY FLOYD

has satisfied the requirements to be designated as a
CERTIFIED FLAGGER

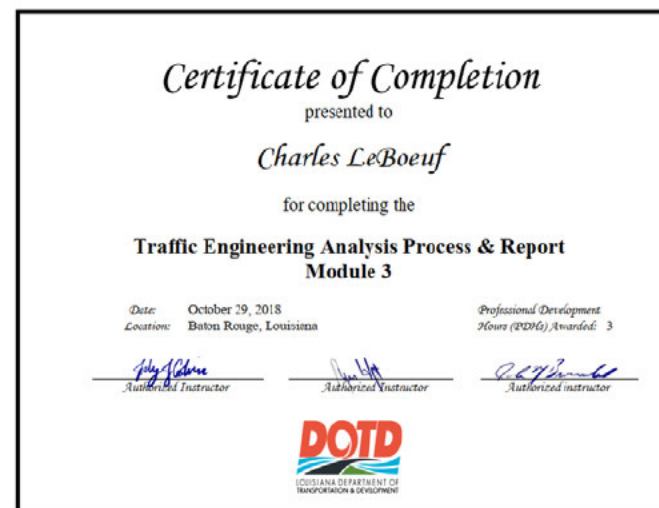
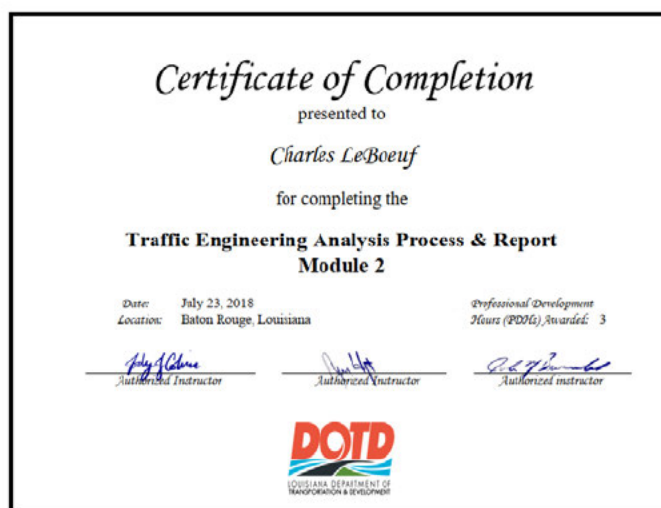
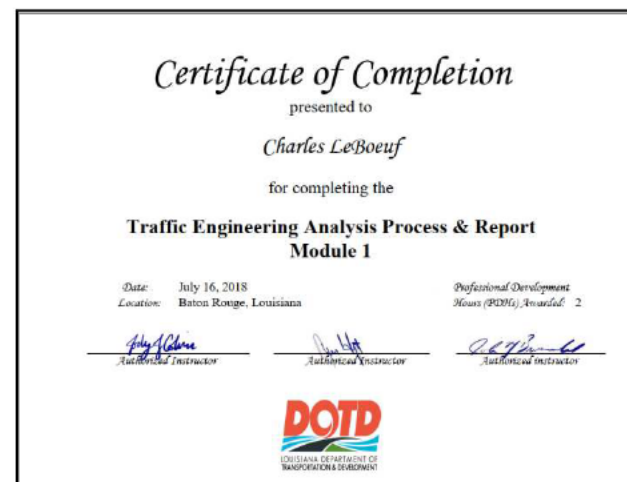
Issue Date 6/4/2024 Instructor Debbie Purcella

Exp. Date 6/4/2028 *Debbie Purcella*

State Issued LA Instructor Signature

Vehicle 258142 Validity at Flagger.com

Charles LeBoeuf, PE, PTOE



Ellen Burke Howard, PE, PTOE, RSP



Transportation Professional Certification Board, Inc.

certifies that

Ellen Burke Howard

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

Road Safety Professional

unless withdrawn by the Certification Board and subject to the provisions for renewal,
Certificate number 349 issued in Washington, D.C., U.S.A.
12/09/2019

Diana L. Roberts, Esq.
Chair


Jeffrey T. Davis
Executive Director

Transportation Professional Certification Board Inc.

certifies that

Ellen Lee Burke

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 3735 issued in Washington, D.C., U.S.A.
August 1, 2014

Timothy D. Schepert
Chair


Executive Director

Certificate of Completion

presented to

Ellen B. Howard

for completing the

Traffic Engineering Analysis Process & Report
Module 1Date: July 16, 2018
Location: Baton Rouge, LouisianaProfessional Development
Hours (PDHs) Awarded: 2

Authorized Instructor

Authorized Instructor

Authorized Instructor


Certificate of Completion

presented to

Ellen Howard

for completing the

Traffic Engineering Analysis Process & Report
Module 2Date: July 23, 2018
Location: Baton Rouge, LouisianaProfessional Development
Hours (PDHs) Awarded: 3

Authorized Instructor

Authorized Instructor

Authorized Instructor


Certificate of Completion

presented to

Ellen Howard

for completing the

Traffic Engineering Analysis Process & Report
Module 3Date: October 29, 2018
Location: Baton Rouge, LouisianaProfessional Development
Hours (PDHs) Awarded: 3

Authorized Instructor

Authorized Instructor

Authorized Instructor


Jonathan Duhe, PE, PTOE, RSP



Transportation Professional Certification Board, Inc.

certifies that

Jonathan Paul Duhe

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

Road Safety Professional

unless withdrawn by the Certification Board and subject to the provisions for renewal.
Certificate number RSP issued in Washington, D.C., U.S.A.
07/17/2019

David W. Rorsholtz
Chair


Jeffrey T. Dennis
Executive Director

Transportation Professional Certification Board, Inc.

certifies that

Jonathan Paul Duhe

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 PTOE issued in Washington, D.C., U.S.A.

Richard H. Stark
Chair


Jeffrey T. Dennis
Executive Director

This certificate acknowledges that

Jonathan Paul Duhe

has successfully completed the training course:

Cybersecurity Awareness WBT

on

02/26/2025

STATECIVILSERVICE

This document is intended to be used solely for the purpose of documenting the individual's completion of this SCS web-based training.



PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Jonathan Duhe

has attended

Louisiana Traffic Control Supervisor Refresher

Training Course

9/8/2023 to 9/8/2027
Training Valid ThroughBaton Rouge, LA
Location

John W. Tucker
Vice President of Education and Technical Services
President, CEO

ATSSA provides training and certification but neither constitutes endorsement by ATSSA.
American Traffic Safety Services Association ATSSA.com

Certificate of Completion

presented to

Jonathan Duhe

for completing the

Traffic Engineering Analysis Process & Report
Module 1Date: July 16, 2018
Location: Baton Rouge, LouisianaProfessional Development
Hours (PDHs) Awarded: 2

John W. Tucker
Authorized Instructor

John W. Tucker
Authorized Instructor

John W. Tucker
Authorized Instructor


Certificate of Completion

presented to

Jonathan Duhe

for completing the

Traffic Engineering Analysis Process & Report
Module 2Date: July 23, 2018
Location: Baton Rouge, LouisianaProfessional Development
Hours (PDHs) Awarded: 1

John W. Tucker
Authorized Instructor

John W. Tucker
Authorized Instructor

John W. Tucker
Authorized Instructor


Certificate of Completion

presented to

Jonathan Duhe

for completing the

Traffic Engineering Analysis Process & Report
Module 3Date: October 29, 2018
Location: Baton Rouge, LouisianaProfessional Development
Hours (PDHs) Awarded: 3

John W. Tucker
Authorized Instructor

John W. Tucker
Authorized Instructor

John W. Tucker
Authorized Instructor


Vijay Kunada, PE, PTOE, PTP



Transportation Professional Certification Board Inc.

*certifies that***Vijay Kumar Kunada***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 2878 issued in Washington, D.C. U.S.A.
April 14, 2010*

Chair


Executive Director
Certificate of Completion

presented to

Vijay Kunada

for completing the

**Traffic Engineering Analysis Process & Report
Module 1**Date: October 1, 2018
Location: Baton Rouge, LouisianaProfessional Development
Hours (PDHs) Awarded: 2.5

Authorized Instructor

Authorized Instructor

Authorized Instructor
**Certificate of Completion**

presented to

Vijay Kunada

for completing the

**Traffic Engineering Analysis Process & Report
Module 2**Date: October 10, 2018
Location: Baton Rouge, LouisianaProfessional Development
Hours (PDHs) Awarded: 3.5

Authorized Instructor

Authorized Instructor

Authorized Instructor
**Certificate of Completion**

presented to

Vijay Kunada

for completing the

**Traffic Engineering Analysis Process & Report
Module 3**Date: December 17, 2018
Location: Baton Rouge, LouisianaProfessional Development
Hours (PDHs) Awarded: 3

Authorized Instructor

Authorized Instructor

Authorized Instructor


Transportation Professional Certification Board Inc.

*certifies that***Vijay Kumar Kunada***has met all of the requirements established by the Certification Board
to use the title of***PROFESSIONAL TRANSPORTATION PLANNER***Unless withdrawn by the Certification Board this certificate number 096
issued in Washington, D.C. is subject to the provisions for renewal
November 7, 2007*

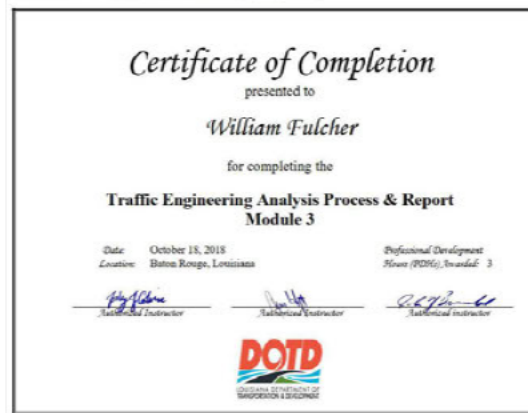
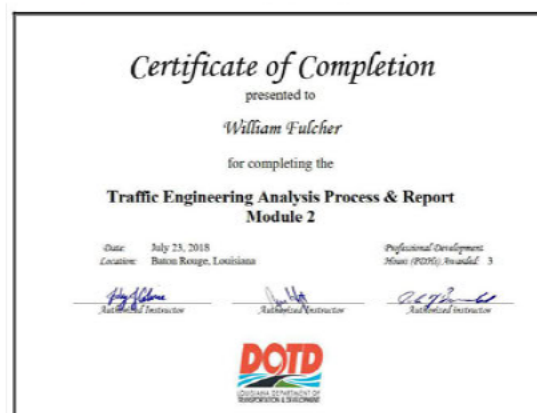
Chair


Executive Director

Project References for Mesoscopic Traffic Models (MPR No. 10)

Project Name & Description	Project Location	Owner	Point-of-Contact	Phone Number	Email
H.016168.1: Baton Rouge Northern Bypass Expressway	East Baton Rouge and West Baton Rouge Parishes, LA	LADOTD	Melissa LeBas	(225) 379-1039	Melissa.LeBas@la.gov
H.013284: MRB South GBR: LA 1 to LA 30 Connector	Ascension, East Baton Rouge, Iberville, and West Baton Rouge Parishes, LA	LADOTD	Christina Brignac	(225) 379-1394	Christina.Brignac@la.gov
H.013897: I-10 & I-12 College Drive Flyover Ramp Design-Build	Baton Rouge, LA	LADOTD	Catherine Mastin, PE	(225) 379-1652	catherine.mastin@la.gov
College Drive Enhancement Project	Baton Rouge, LA	City of Baton Rouge	Cyndi Pennington	(225) 389-3246	cpennington@brla.gov
Lafayette Parish Mesoscopic Model	Lafayette, LA	Acadiana Planning Commission	Sara Gary	(337) 806-9378	sgary@planacadiana.org

William Case Fulcher, PE, PTOE, PTP, RSP



Dishili Young Curry, PE, PTOE



Certificate of Completion
presented to
Dishili Young
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


LOUISIANA DEPARTMENT OF
TRANSPORTATION & DEVELOPMENT

Certificate of Completion
presented to
Dishili Young
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


LOUISIANA DEPARTMENT OF
TRANSPORTATION & DEVELOPMENT

Certificate of Completion
presented to
Dishili Young
for completing the
**Traffic Engineering Analysis Process & Report
Module 3**

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

Professional Development
Hours (PDHs) Awarded: 3

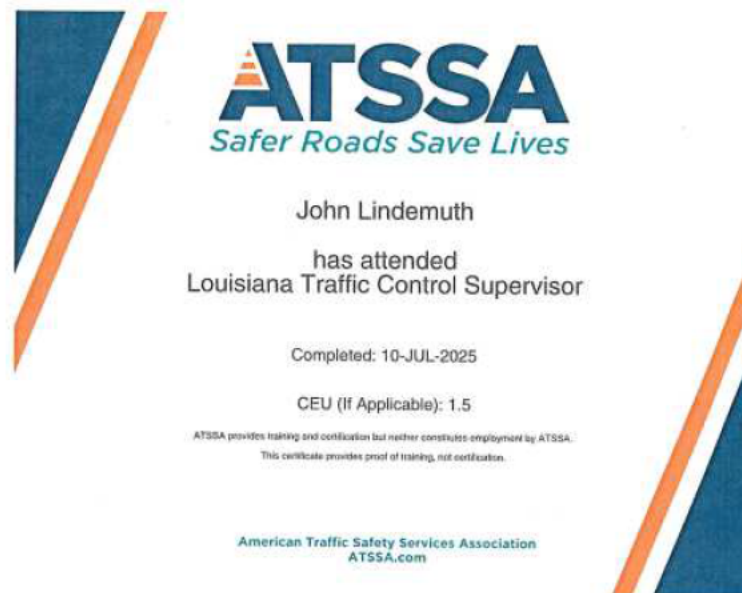

Authorized Instructor


Authorized Instructor

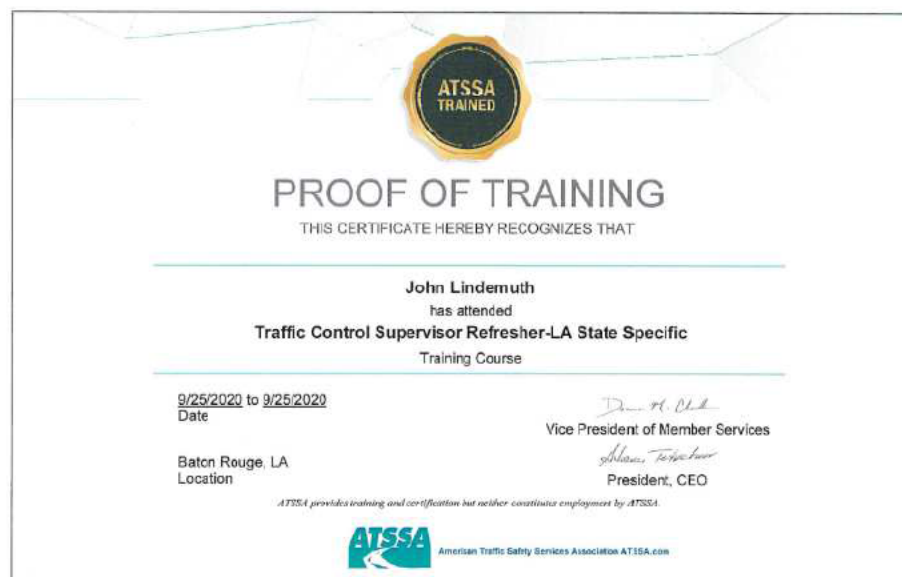
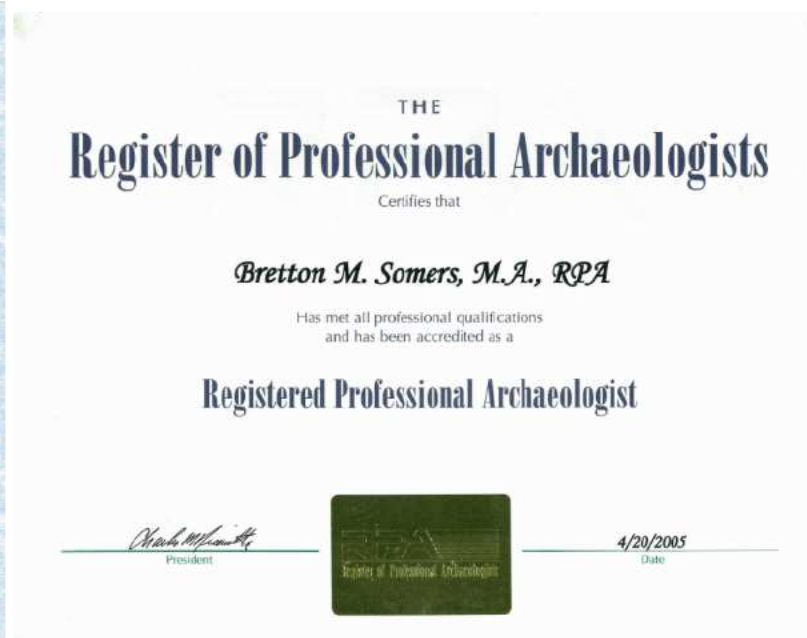
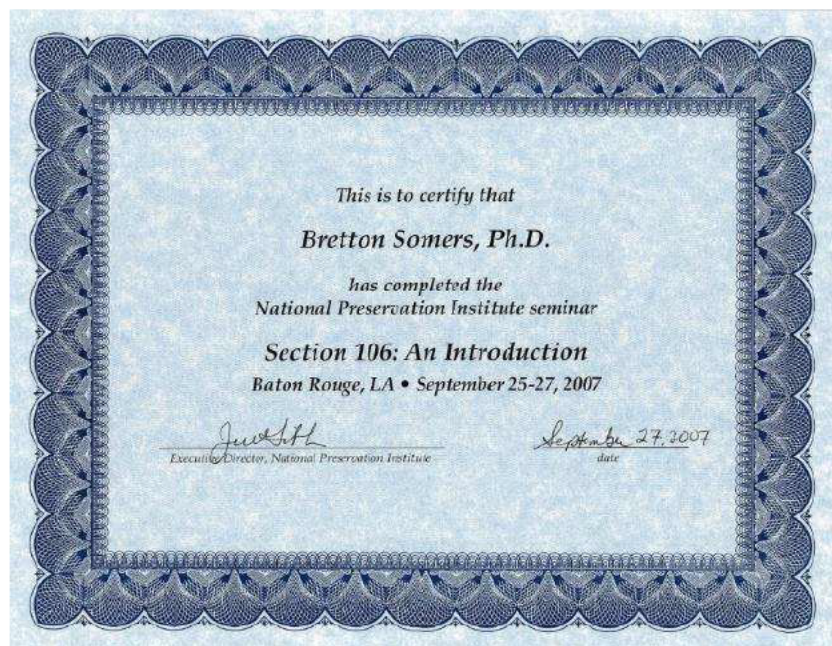

Authorized instructor


LOUISIANA DEPARTMENT OF
TRANSPORTATION & DEVELOPMENT

John Lindemuth



Bretton Somers, Ph.D





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 Unified Certification Program (LAUCP)

Gulf South Research Corporation

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

NC541620

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

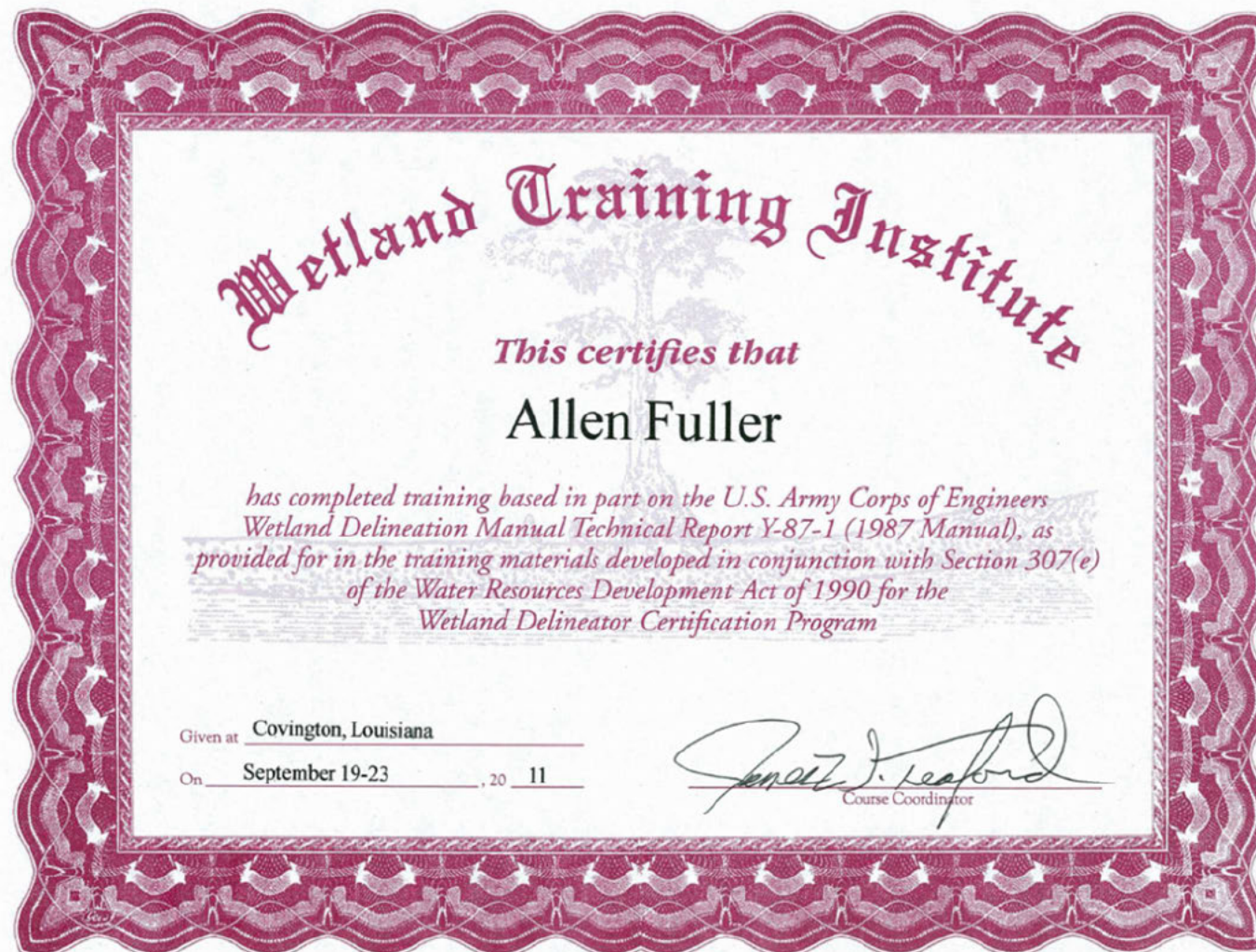
Certificate Eligibility: June 2025 to June 2026

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.

Paula Roddy, Compliance Programs Director

Louisiana Department of Transportation & Development

Allen Fuller



Ross Hackbarth





Richard Chinn Environmental Training, Inc.

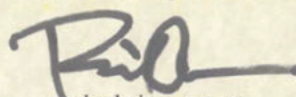
certifies that

Beau C. Rapier

has successfully completed a

38 Hour Army Corps of Engineers Wetland Delineation Training Program

September 21 - 24, 2020 in Baton Rouge, Louisiana. Issued Certificate No. 8857 and 3.8 CEUs. This course is pre-approved by the Society of Wetland Scientists Professional Certification Program to provide 2.5 Training Credits and/or Points.


Richard Chinn, SPWS

Richard Chinn Environmental Training, Inc.
804 Cottage Hill Way, Brandon, FL 33511-8098

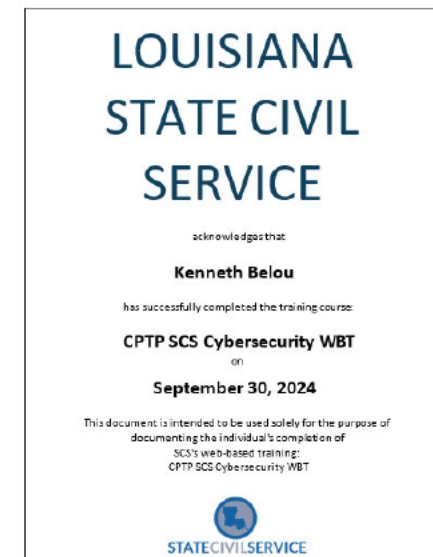
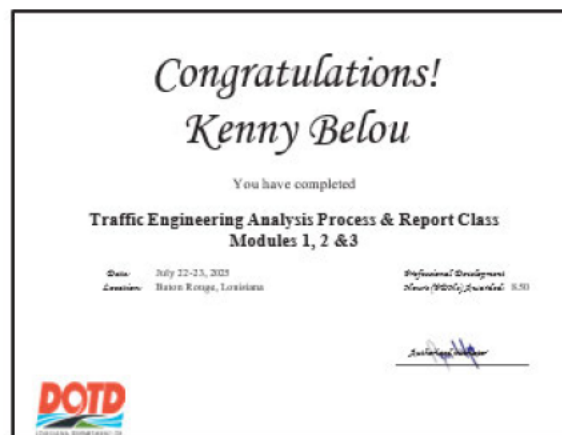
813.655.7549 • FAX: 813.354.4659 • info@richardchinn.com • <http://www.richardchinn.com>

This training has been based in part on the U. S. Army Corps of Engineers Wetlands Delineation Manual Technical Report Y-67-1 (1987 manual), as provided for in the training materials developed in conjunction with Section 307(c) of the Water Resources Development Act of 1990 for the Wetland Delineation Certification Program.





Kenneth Belou, PE



National Highway Institute

Certificate of Training

**KENNY BELOU***has participated in*

**FHWA-NHI-142005 NEPA and the Transportation
Decisionmaking Process**

*hosted by***LA DOTD/LTRC**

Date: January 9-11, 2024

Hours of Instruction: 18

Location: Baton Rouge, LA

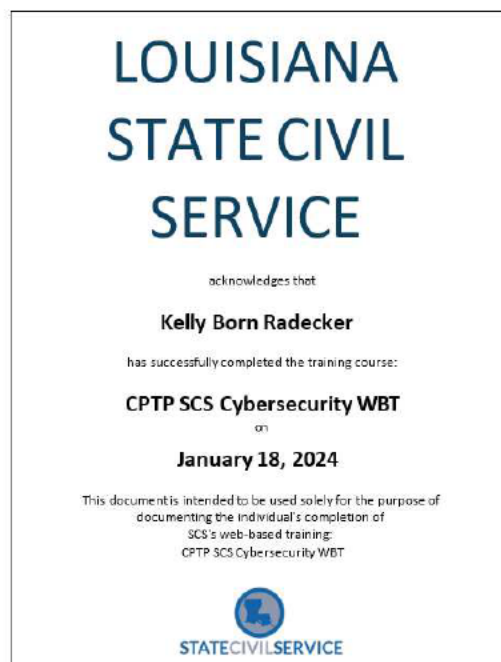
John H. Smith
Instructor

Allison H. Landry
Local Coordinator

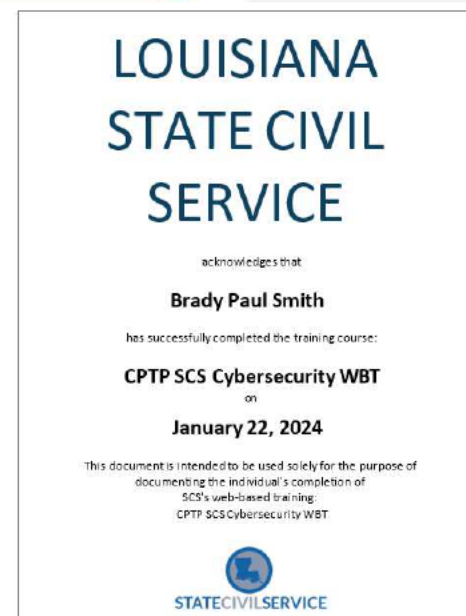
Stacy J. Caston
Instructor

Stacy J. Caston
Stacy J. Caston, Director
National Highway Institute

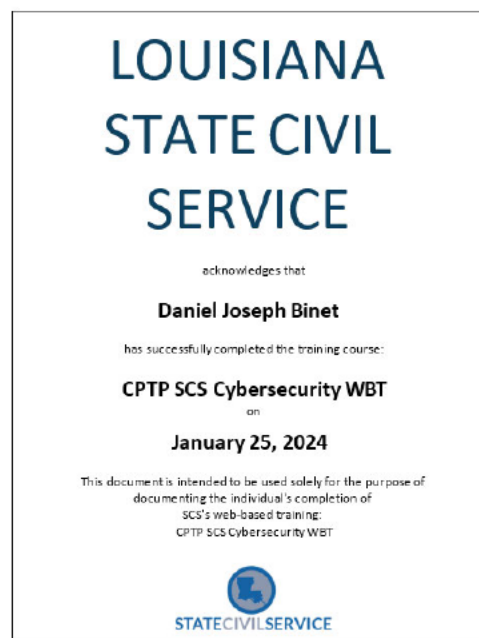
Kelly Radecker, PE



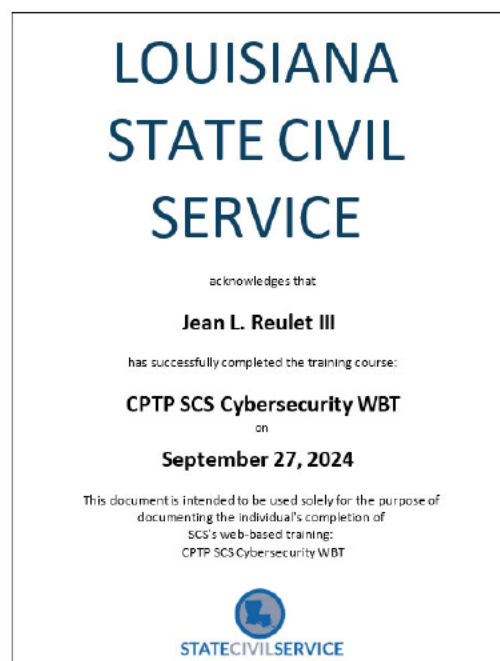
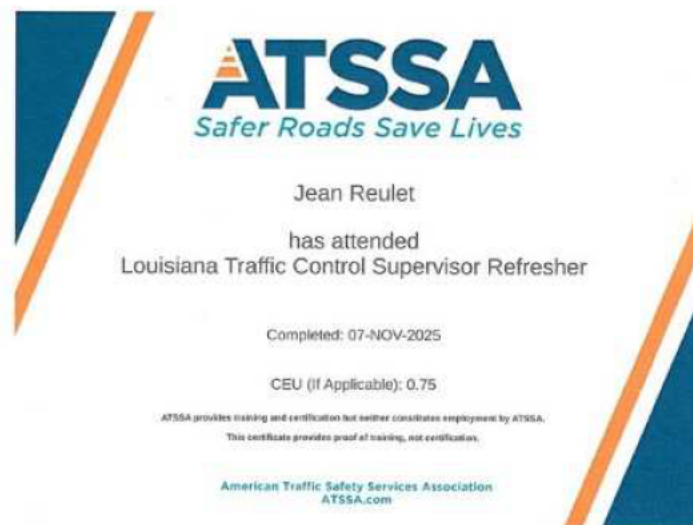
Brady Smith, PE, PMP

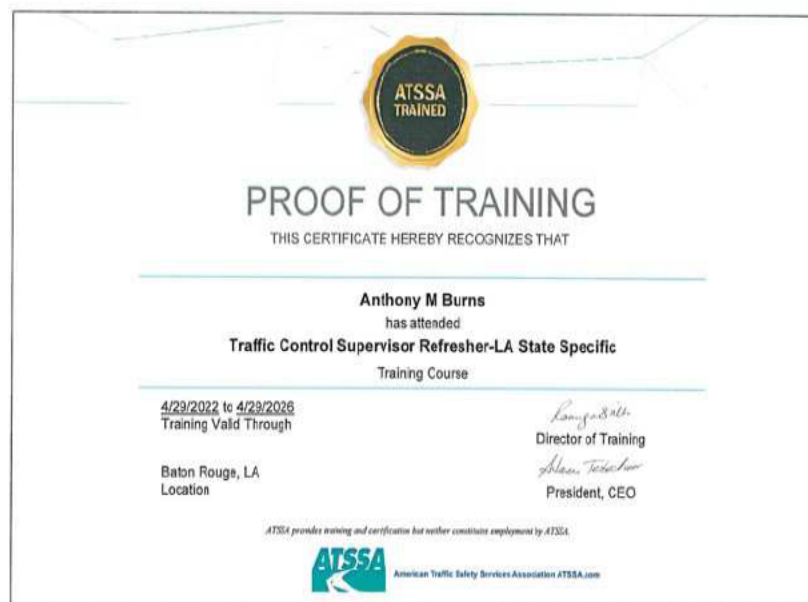


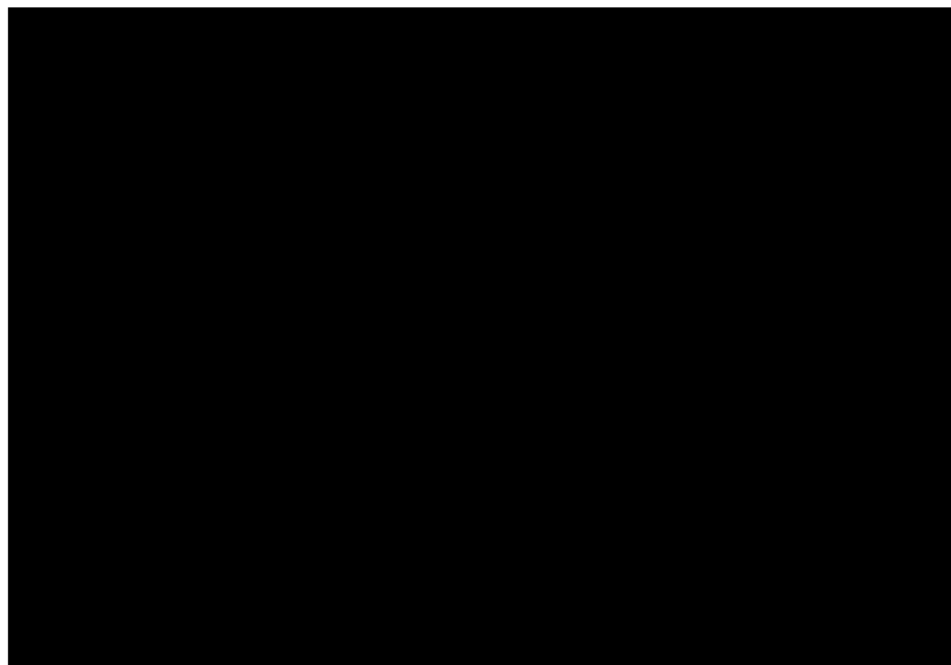
Daniel Binet, PE



Jean Reulet, III, PLS







21. QA/QC PLAN:

If the advertisement requires submission of a QA/QC plan, include it 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.**

See attachment at the end of this document.

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
Ardaman & Associates, Inc. 	316 Highlandia Drive, Baton Rouge, LA 70810	Robb E. Jewell, P.E. rjewell@ardaman.com	225-752-4790
Neel-Schaffer, Inc. 	10000 Perkins Rowe, Suite G360 Baton Rouge, LA 70810	Nick Ferlito, Jr., PE, PTOE	225-924-0235
Gulf South Research Corporation 	8081 Innovation Park Drive, Baton Rouge, LA 70820	Suna Adam suna@gsrcorp.com	225-757-8088
T. Baker Smith, LLC  T.BAKER SMITH	6660 Riverside Drive, Suite 101 Metairie, LA 70003	Kenny Belou, PE kenny.belou@tbsmith.com	504-608-2612
Vectura Consulting Services, LLC VECTURA	PO Box 14269 Baton Rouge, LA 70898	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.**



Engineering, Inc.

CONTRACT NOS. 4400034051

US 71: ICG RAILROAD OVERPASS REHAB (HBI)

US 71: MARKET ST BRIDGE OVER ICG RR (HBI)

QUALITY CONTROL PLAN

REV. 00

Submitted to:

Louisiana Department of Transportation and Development

Submitted by:

Zhiyong Liang, PhD, PE, PMP Project Manager
SDR Engineering Consultants, Inc.

Date: 3/17/2026

Approved by:

Mohsen Shahawy, PhD, PE, Quality Assurance Manager
SDR Engineering Consultants, Inc.

Date: 3/17/2026

March 2026

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1.0 INTRODUCTION

This Quality Control and Quality Assurance Plan (QC/QA) for the US 71: ICG Railroad Overpass Rehab (HBI) and US 71: Market St Bridge Over ICG RR (HBI) has been prepared in accordance with LADOTD Bridge Design and Evaluation Manual (BDEM); Part I – Policies and Procedures; Chapter 3 – Policy for Quality Control and Quality Assurance (formerly Bridge Design Technical Memorandum No. 37 (BDTM.37)). SDR Engineering Consultants, Inc. (SDR) is committed to delivering services of the highest quality that conforms to the most current quality control standards.

This QC/QC details the proposed methods of controlling and assuring quality on all work products. It also includes project team organization, methods for documentation of comments and responses and record keeping of the project. This QCP clearly defines the role and responsibility of each person involved with the project.

The QC/QA will be updated throughout the duration of the project as and when it becomes necessary due to change in staffs or scope of the work.

1.1 H.012008 – US71: ICG RAILROAD OVERPASS REHAB (HBI)

The general scope of services for this project and the tasks to be performed by the consultant are as follows:

1.1.1 Project Description

This project is located in Caddo Parish and crosses KCS Railroad. The existing structure is a 293 foot long concrete I-beam bridge which was built in 1937 and is considered a historic preservation priority. This project will rehabilitate the existing bridge to improve the overall condition of the bridge, extend its service life, and/or improve its bridge load rating as appropriate based on BDEM Guidelines for Existing Structure Evaluation.

1.1.2 Traffic Study

A traffic study shall be conducted to incorporate both State Project Nos. H.012008 and H.012009 in accordance with the following:

- A. Develop the Project Management Plan in accordance with DOTD and FHWA guidance.
- B. Prepare list of agencies and coordination plan. Update both as needed throughout the life of the project.
- C. Prepare the list of stakeholders and involvement plan. Update both as needed throughout the life of the project.
- D. Obtain existing mesoscopic model (provided by DOTD) and review for any additional data required to aid in identifying potential detour routes. Collect additional traffic counts, if any, and other pertinent data to perform traffic analysis of the study area using DOTD approved software. Grow the traffic volumes using DOTD approved methods and analyze the future conditions. Perform Safety Analysis. Utilize all

collected data to analyze and determine alternatives that accomplish the goals of the Purpose and Need.

E. Conceptual cost estimate for each alternative.

1.1.3 Topographic Survey Service

A topographic survey shall be required along a portion of the existing route. A complete topographic survey including all utilities with depths and all drainage is required, along with finish floor elevations of all buildings that fall in the survey limits. This project shall be completed in accordance with the Location and Survey Manual and all current accepted Location and Survey Automation procedures and also meet the designer's requirements.

1.1.4 Geotechnical Investigation and Design Services

The Consultant shall perform a geotechnical investigation consisting of soil borings, laboratory testing, optional cone penetrometer test (CPT) soundings, soil classification, site characterization, and soil boring logs. All services shall be provided in accordance with the latest version of the DOTD Geotechnical Design Manual (GDM). The following services shall be provided:

- Field Investigation – Bridge Borings
- Sampling
- Borehole Abandonment
- Sample Storage and Transport
- Field Logs
- Field Investigation – Shallow Subgrade Soil Survey
- Extrusion Logs
- Site Characterization & Boring Logs

1.1.5 Document Review and Site Inspection

Collect all data that may be pertinent to the projects. This may include, but is not limited to, review of as-built plans, existing load rating reports, inspection reports, existing R/W, traffic data, parish maps, scaled aerial photos of site, DOTD roadway classification, Stage 0 Structural Site Surveys, alignment studies, and any other relevant and available information that would aid in providing the required submittals.

Conduct a field visit to the bridge sites, assess the site conditions (including environmental impacts, railroad impacts, utility relocation, r/w impacts, permit issues, possible roadway detour alternatives and length of detour, existing approach roadway section and geometry, etc.), and have a reasonable understanding of the current health and serviceability of the existing structures.

1.1.6 Site Inspection Review, Analysis, And Alternative Development

Thoroughly review and analyze all data collected and use the information to develop a complete understanding of the existing structure and the deficiencies that must be addressed.

- Determine types, magnitudes, and extents of needed repairs from site visit
- Analyze the site visit data and correlation with existing data
- Develop a summary of deficiencies to be addressed

1.1.7 Develop And Evaluate Remediation Strategies

Develop various remediation strategies for all of the deficiencies that have been identified. The number of strategies developed for each deficiency shall vary as appropriate. Lane and bridge closures required for each strategy should also be considered.

- Develop remediation strategies and alternatives (where required)
- Evaluation lane / bridge closure / sequences for strategies and alternatives
- Develop preliminary costs for remediation strategies
- Develop a recommended remediation strategy for each deficiency

1.1.8 Preliminary Plan Development Services

The Consultant shall develop preliminary plans for the recommended remediation along with all associated forms and reports. The Consultant shall provide preliminary plans for the project including, but not limited to, the following:

- Title Sheet
- Typical Section and Details
- Summary of Estimated Quantities
- Miscellaneous Details & General Notes
- Temporary Construction Signs, Suggested Sequence of Construction/Detour Route
- Signing
- Cross-Sections (Earthwork)
- Geometric Details
- Plan/Profile Sheets
- Construction Cost Estimate
- Bridge Sheets as outlined in the DOTD Bridge Design and Evaluation Manual

1.2 H.012009 – US71: MARKET ST BRIDGE OVER ICF RR (HBI)

The general scope of services for this project and the tasks to be performed by the consultant are as follows:

1.2.1 Project Description

This project is a bridge replacement project located on US 71 in Caddo Parish and crosses KCS Railroad. The existing structures are 585 foot long concrete I-beam bridges which were built in 1940. The two structures are to be removed and replaced with a single structure at this location.

1.2.2 Bridge Design Services

Provide bridge engineering services for the replacement of two bridges. Bridge engineering services include, but are not limited to, structural, mechanical, electrical, and architectural feasibility, design, and plan development and the following:

- Bridge design and calculations
- Preliminary design plan development

1.2.3 Traffic Study

A traffic study shall be conducted to incorporate both State Project Nos. H.012008 and H.012009 in accordance with the following:

- F. Develop the Project Management Plan in accordance with DOTD and FHWA guidance.
- G. Prepare list of agencies and coordination plan. Update both as needed throughout the life of the project.
- H. Prepare the list of stakeholders and involvement plan. Update both as needed throughout the life of the project.
- I. Obtain existing mesoscopic model (provided by DOTD) and review for any additional data required to aid in identifying potential detour routes. Collect additional traffic counts, if any, and other pertinent data to perform traffic analysis of the study area using DOTD approved software. Grow the traffic volumes using DOTD approved methods and analyze the future conditions. Perform Safety Analysis. Utilize all collected data to analyze and determine alternatives that accomplish the goals of the Purpose and Need.
- J. Conceptual cost estimate for each alternative.
- K. Traffic engineering, traffic control design, and data collection. Transportation Management Plan (TMP) Level 2 development.

1.2.4 Environmental Services

Environmental investigation will result in a Categorical Exclusion (CE) or an Environmental Assessment (EA).

1.2.5 Topographic Survey Service

A topographic survey shall be required along a portion of the existing route. A complete topographic survey including all utilities with depths and all drainage is required, along with

finish floor elevations of all buildings that fall in the survey limits. This project shall be completed in accordance with the Location and Survey Manual and all current accepted Location and Survey Automation procedures and also meet the designer's requirements.

1.2.6 Geotechnical Investigation and Design Services

The Consultant shall perform a geotechnical investigation consisting of soil borings, laboratory testing, optional cone penetrometer test (CPT) soundings, soil classification, site characterization, and soil boring logs. In addition to the referenced ASTM designations, refer to FHWA Geotechnical Engineering Circular No. 5 (GEC 5) for best practices pertaining to geotechnical site characterization). The following services shall be provided:

- Field Investigation – Bridge Borings
- Sampling
- Borehole Abandonment
- Field Logs
- Field Investigation – Shallow Subgrade Soil Survey
- Laboratory Testing
- Bridge Borings
- Extrusion Logs
- Site Characterization & Boring Logs

1.2.7 Preliminary Plan Development Services

The Consultant shall develop preliminary plans and all associated forms and reports for the replacement of the bridges. The Consultant shall provide preliminary plans for the project including, but not limited to, the following:

- Title Sheet
- Typical Section and Details
- Summary of Estimated Quantities
- Miscellaneous Details & General Notes
- Temporary Construction Signs, Suggested Sequence of Construction/Detour Route
- Signing
- Cross-Sections (Earthwork)
- Geometric Details
- Plan/Profile Sheets
- Construction Cost Estimate
- Bridge Sheets as outlined in the DOTD Bridge Design and Evaluation Manual

1.3 PROJECT GOVERNING STANDARDS AND CRITERIA

The Scope of Services requires that this contract be in compliance with AASHTO LRFD Bridge Design Specifications, 10th Edition, Manual for Bridge Evaluation, 3rd Edition with 2020 Interim Revisions, and the Louisiana Department of Transportation and Development's guidelines, manuals and standards, as applicable to the required services.

1.4 PROJECT SCHEDULE

Services will commence upon receipt of the task work order authorization and as directed by the Department's Project Manager. The services will continue until notice is given by the Department's Project Manager to end the services or when the approved cost for the services is exhausted.

Project submittals, associated schedule, and format shall be established in each Task Order. All bridge plan submittals shall be submitted in pdf format and the 100% signed final plans shall be submitted in full size paper and in pdf format. Design and rating calculations shall be submitted in pdf format no later than 30 days after the 100% final plan submittal.

1.5 DEFINITION OF TERMS

The use of the terms *quality control (QC)* and *quality assurance (QA)* within the QCP have the following meanings:

- Quality Control refers to actions, procedures, and methods that are routinely employed at the production and administrative levels, and under the jurisdiction of the Project Manager (PM), to produce the desired result of quality professional services.
- Quality Assurance refers to actions, procedures, and methods employed at the management and senior technical levels to verify that prudent quality control procedures are in place, are being followed, and that the desired result of quality professional services is being achieved.

2.0 PROJECT ORGANIZATION

2.1 PROJECT TEAM

Figure 1 shows the organizational structure of the team. Each member of the team shares the responsibility of ensuring that quality professional services are being achieved.

According to LADOTD BDEM Part I Chapter 3, LADOTD Bridge Task Managers shall not perform QC/QA of consultants' work. SDR Engineering, as the prime consultant, is fully responsible for QC/QA of their work and the work of all sub-consultants.

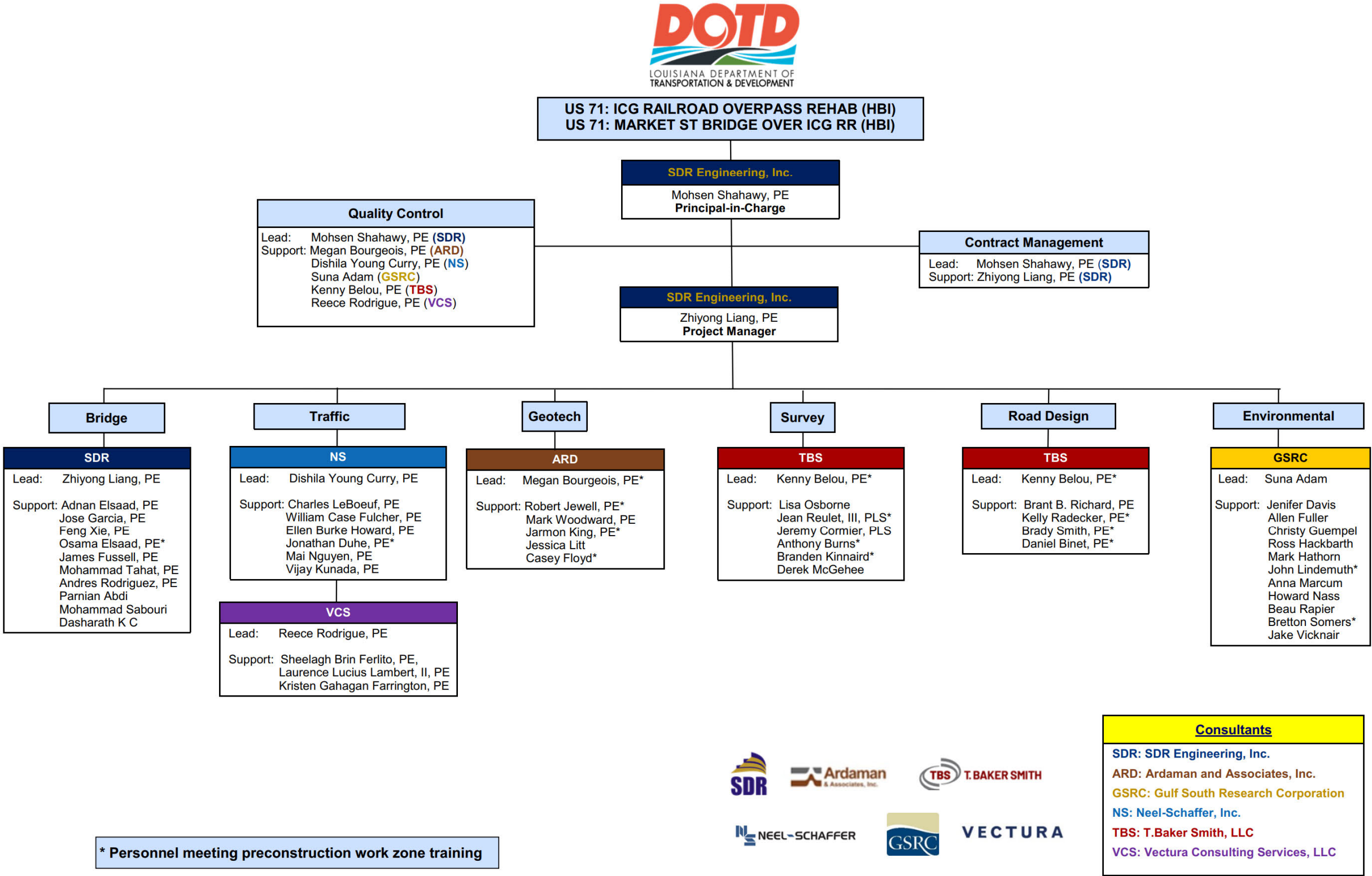


Figure 1: Organizational Chart

2.2 TEAM MEMBER QC/QA RESPONSIBILITIES

The main functions of key staff classifications in relation to quality control and quality assurance are described below.

- Engineering/Planning Technical Staff are responsible for planning and executing assignments so that the work is produced in accordance with the Scope of Services and in the format that LADOTD requests and expects. The most important place to assure quality is at the technical staff production level where the work is planned and executed. This is accomplished by selecting the most experienced and skilled professionals to perform each specific task.
- Project Engineers/Planners/Scientists are highly experienced professionals who are responsible for directing a team of technical staff in performing a specific task of the project. They also establish quality control procedures for their responsible areas and assign quality control functions for their staff. These procedures must conform to the QCP.
- Zhiyong Liang, PhD, PE, as Project Manager, is responsible for allocating resources to various elements of the work, preparing and implementing the QCP, scheduling the various activities and adjusting the plans as the work progresses to resolve identified potential problem areas in a timely manner. The PM, working together with the respective Project Engineer/Planner/Scientist, identifies the suitable persons/teams to perform QC reviews on each project element/deliverable. The PM is also responsible for maintaining records of all QC and QA reviews in the project files. The PM is also personally responsible for performing a final quality check of all work before it is submitted to LADOTD and ensuring that the procedures outlined in this document have been followed without exception. The PM will maintain frequent contact and communication with LADOTD to assure satisfaction with the project's progress and performance.
- Quality Control Reviewers are persons or teams responsible for performing independent technical reviews on specific project tasks, verifying the quality and technical adequacy of the project deliverables, and assuring their compliance with applicable standards and requirements. The QC Reviewers are not directly involved in the preparation of the documents/plans.
- Mohsen Shahawy, PhD, PE, as Principal-in-Charge (PIC), is responsible for allocating the required resources to perform the project and for monitoring the project to ensure adherence to the contractual terms and the QCP. The PIC provides periodic audits of technical performance of SDR staff. The PIC is also responsible for client interface and obtaining client feedback and input regarding the project and SDR's performance.
- Mohsen Shahawy, PhD, PE, as Quality Assurance Manager (QAM), is responsible for ensuring that all deliverables have entered the QC review process and that adequate time has been allowed to perform a complete QC review. The QAM has the authority

to delay the submittal of a deliverable should he/she deem that this deliverable has not received a satisfactory QC review prior to its submittal. The QAM will not participate in the production of any elements of the project.

3.0 QUALITY CONTROL AND QUALITY ASSURANCE REVIEWS

3.1 GENERAL

Prior to submittal, each deliverable will undergo QC and QA reviews consistent with this QCP and LADOTD's quality control requirements. Where applicable, LADOTD's quality control checklists will be used to verify that each deliverable conforms to the current requirements and expectations. Appendix I from the LADOTD BDEM Chapter 3 will be included in every submittal, and Appendix D from the same chapter will be included in the final submittal (see Appendix I in this document for the forms).

The QC reviews of studies, reports, drawings, specifications, calculations, cost estimates, and/or other project-related deliverables will require a minimum of two individuals:

- The deliverable *Author* (for documents) or *Originator* (for plans and calculations). During the QC process, this individual will also function as the *Corrector* and *Back-checker*.
- The *QC Reviewer/Checker* who will also function as the *Verifier*.

All QC Reviewers/Checkers/Verifiers will be qualified Engineers/Planners/Scientists who are experienced in the discipline being checked and not actively involved in the preparation of the deliverable. No Author or Originator will perform a formal QC check on his/her own work.

QA reviews will be performed by the QAM.

A checkprint is a copy of a document (report/memorandum), drawing, or calculation in its pre-submission form used for the purpose of checking and marking comments, additions, deletions, and corrections. The checkprint is identified as such by being accompanied by a QC form (for documents) or bearing the specific QC stamp (for drawings, calculations).

The checking procedures that will occur during the QC and QA reviews are discussed in the next section.

Table 1
Summary of Project Deliverables and Production Schedule

Deliverable	Responsible Engineer/Planner/Scientist Author/Originator	Responsible QC Reviewer	Anticipated QC Review Start Date	Anticipated QA Review Start Date	Anticipated Submittal Date
SDR Produced Deliverables					
			xx/xx/xx	xx/xx/xx	xx/xx/xx
Subconsultant Produced Deliverables					

3.2 DESIGN CHECKS AND REVIEWS

3.2.1 Design Review Requirements

Structure designs and drawings are subject to design and detailing reviews in accordance with the following table:

DESIGN REVIEW REQUIREMENTS								
STRUCTURE TYPE	REVIEW TYPE							
	SITUATION & LAYOUT CHECK		60% REVIEW	CADD STDS CHECK	FINAL DESIGN CHECK			FINAL QA REVIEW
	DESIGN	DRWG	DESIGN	DRWG	DESIGN	DRWG	SPECS & EST	ALL DOCS
Bridge	X	X	X	X	X	X	X	X
Drainage Structures	X	X		X	X	X	X	X
Retaining Wall	X	X		X	X	X	X	X
Overhead Signs			X	X	X	X	X	X
Bridge Widening	X	X	X	X	X	X	X	X
Structure Repair			X	X	X	X	X	X
Sound Wall *		X	X	X	X	X	X	X
Structural Barriers *			X	X	X	X	X	X

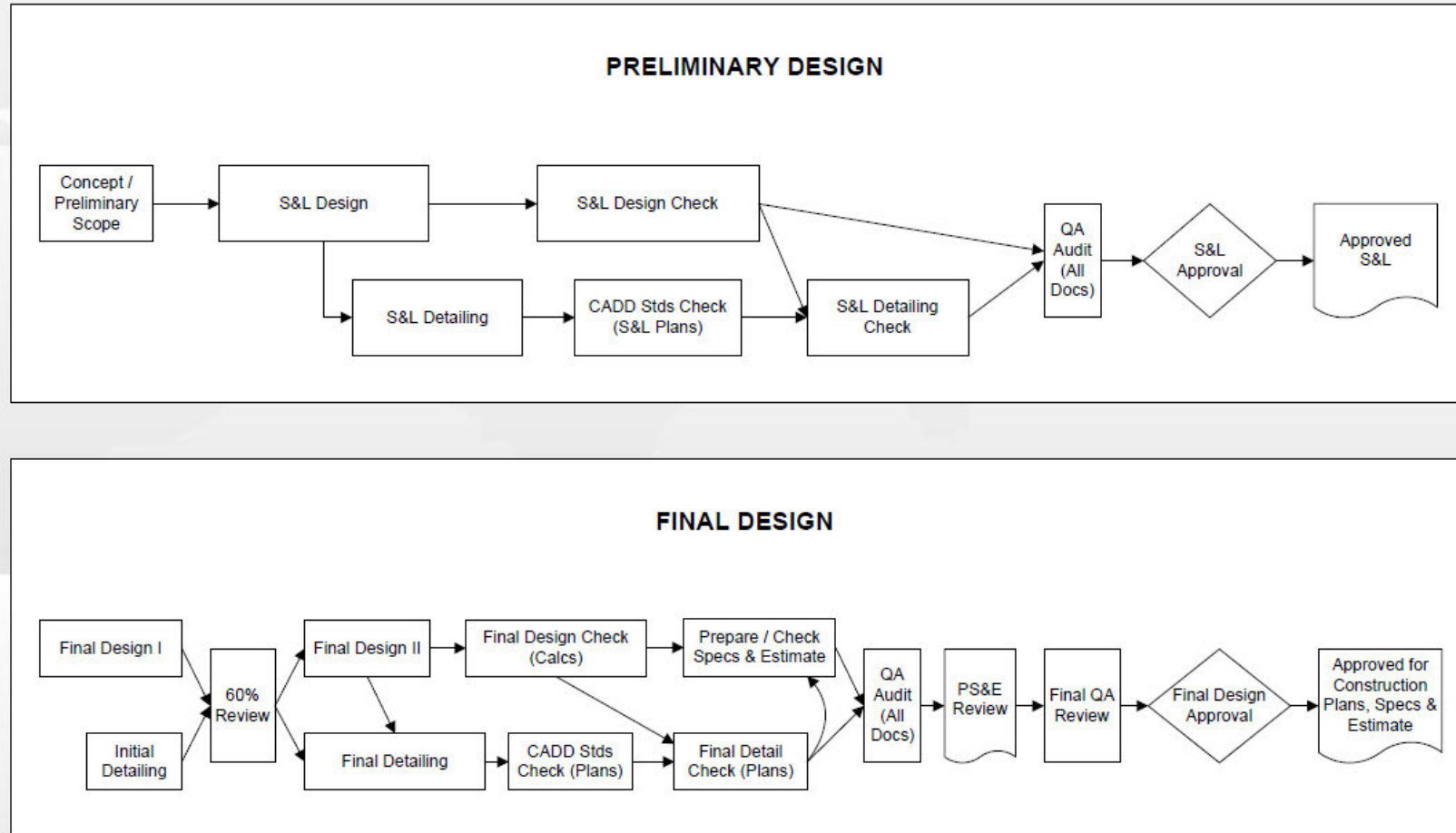
* Applies only to non-standard sound walls and structural barriers not covered by LADOTD standard drawings.

3.2.2 Structure Design Quality Process

The following chart illustrates the structure design quality process proposed for this project.

Figure 2: Preliminary and Final Design Quality Process

STRUCTURE DESIGN QUALITY PROCESS



QC COLOR CODE

REMEMBER TO USE SIGN-OFF STAMP!

ORIGINATOR (DESIGNER)

Typed Text, Blue/line Prints, Calculations, Black/White Copy

NOT IN: RED, YELLOW, OR GREEN

CHECKER (OTHER THAN DESIGNER)

Yellow for Correct

Red for "Corrections"

"Additions or Deletions" *changes*

Use blue for notes to Originator

BACKCHECKER (DESIGNER)

Green Check Mark for Agreement

"Corrections" ✓

Green Stet and Crossout when it is agreed "No Changes"

Ok
"Additions or Deletions" *changes*

UPDATER (ORIGINATOR/ DRAFTER)

Green Encirclement when Updated

"Corrections" ✓

RECHECKER (OTHER THAN DESIGNER)

Yellow over Red and Green to indicate updated correctly

Ok
"Additions or Deletions" *changes*

REVIEWERS (NOT INVOLVED IN ACTIVITIES LISTED ABOVE)

Insures QC process was followed.

Comments in Blue identified by initials and dates.

3.2.3 Situation & Layout (S&L) Check

The Situation & Layout Sheet(s) define(s) the general concept and geometry of the structure. The Situation & Layout Sheet(s) must be completed, checked, corrected and approved before the Designer begins the final design of the structure. The conceptual design of the structure is checked including the geometric layout, structure type, span length, support locations, girder type and spacing, horizontal and vertical clearances, expansion joints locations, aesthetic requirements, potential utility conflicts, context sensitivity, preliminary seismic strategy, and other items appropriate for the bridge under consideration.

The drawings are checked to verify compliance with the *Situation and Layout Detailing Checklist*. The checklist is completed by the Checker and becomes part of the QC documentation for the structure. The drawings are checked for agreement with the most current roadway drawings. Issues and discrepancies with the roadway information are identified and resolved prior to completing the S&L Check. The S&L drawings must detail any aesthetic and environmental requirements related to the structure as outlined in the appropriate documents.

After the Situation & Layout drawings are checked and issued, the roadway designer will immediately communicate any roadway changes to the bridge designer to prevent unnecessary re-design.

See Appendix A for "**STRUCTURES SITUATION & LAYOUT DESIGN APPROVAL**" Form.

3.2.4 60% Design Review

At or near 60% completion, structure plan sets are reviewed to verify concept and scope. This is not a detailed design or drawing check, but a review to validate the design direction and ensure that the design scope and intent on all project design criteria and requirements are being met. This review provides an opportunity to make changes in the design before it progresses to the point where design changes become prohibitive.

See Appendix B for a sample of the **60% DESIGN REVIEW CHECKLIST**.

3.2.5 CADD Standards Check

All drawings will be checked to verify compliance with correct drafting practices and CADD Standards. The CADD Standards Check occurs prior to the drawing QC check. If the drawing does not meet CADD Standards, it will be corrected before proceeding with the drawing QC check. The CADD Standards Check will be completed by a Senior Design Technician.

See Appendix C for a sample of the **CADD STANDARDS CHECKLIST**

3.2.6 Final Design Check

During the Final Design Review, all drawings are thoroughly checked as a complete package. Although previously checked, the latest S&L is once again checked during the Final Design Review to ensure compliance with the latest roadway plans and to verify that information and details not available at the S&L phase are included.

The entire set of design documents (plans, calculations, specifications, engineer's estimate, etc.) will be checked. All checking will be completed before the PS&E package is submitted. Changes to the design package after the QC process is complete will be checked by the same procedures.

See Appendix D for **FINAL DESIGN QA REVIEW CHECKLIST**.

3.2.7 LADOTD Oversight Reviews

LADOTD oversight reviews occur at the following design stages:

1. Preliminary Design Review
2. 60% Design Review
3. 95% Design Review
4. 98% Design Review
5. Review of Final Design (may occur in conjunction with the PS&E Review).

The LADOTD Structures Oversight Engineer assigned to the project may request additional oversight reviews if deemed necessary.

3.2.8 Design Approvals

Design approvals are required at specific design milestones.

<i>DESIGN APPROVAL REQUIREMENTS</i>		
<i>STRUCTURE TYPE</i>	<i>APPROVAL TYPE</i>	
	<i>SITUATION & LAYOUT</i>	<i>FINAL DESIGN</i>
Bridge	X	X
Drainage Structures	X	X
Retaining Wall	X	X
Overhead Sign Structure		X
Bridge Widening	X	X
Structure Repair		X
Sound Wall*		X
Structural Barrier*		X

*Applies only to non-standard sound walls and structural barriers not covered by LADOTD standard drawings.

3.2.9 Final Design QA Review

The Final Design QA Review is completed by SDR QCM or his/her designee. The Final QA Review takes place after the PS&E Review and just prior to the Final Design Approval. The submittal includes all design documents as indicated on the Final Design QA Review Checklist. The following components are the subject of the final QC/QA checks:

1. Completed structure plan set (signed and sealed)
2. Specifications (Special Provisions)
3. Engineer's estimate
4. Design Certification Forms (Complete for Final Design)
5. Design Criteria Summary
6. Approved Design Exceptions
7. Computer Design Software List
8. Bridge Load Rating Report
9. Previous review comments with responses and final dispositions
10. Design Calculations
11. Independent Review Checklist, Letter Report and Calculations (when required)
12. Any other final design documents and reports, as appropriate

See Appendix D for the **FINAL DESIGN QA REVIEW CHECKLIST**.

4.0 QC CHECKING PROCEDURES

4.1 CHECKING OF DOCUMENTS

Each document developed for the project will undergo two QC reviews. Figure 3 provides a flow diagram of the QC and QA review processes for documents. The first QC review will be a technical review to check the technical accuracy of the document's content and its compliance with applicable guidelines, procedures, regulations, and standards. All review revisions will be completed prior to proceeding with the second QC review. The second QC review will occur on a clean copy of the revised document after the technical QC review is completed and is intended to check for spelling, grammar, formatting, readability, and consistency.

Upon completion of the document, the responsible Project Engineer/Planner/Scientist (Author) will initiate the technical and editorial QC reviews by filling out the top two sections and the "name" column of the third section of the QC form shown in Figure 4.

For both reviews, comments/corrections will be marked by the QC Reviewers on the checkprints in red. The QC Reviewers will initial the bottom right corner of each page of the checkprint. Upon completion of the reviews, the QC Reviewers will sign and date the QC form and return it along with the marked-up checkprint to the Author. The Author will confirm the corrections/comments, consult with the appropriate person(s) to resolve conflicts, and revise the document accordingly. Acting as the Corrector and/or the Back-checker, the Author will revise the document in accordance with the comments. Comments that are addressed, as suggested by the QC Reviewer, will be highlighted by the Author on the checkprint in yellow. Comments that, after discussion with the QC Reviewer, are deemed no longer valid, will be crossed by the Author in green on the marked-up document along with a brief note explaining the reason.

The Author will initial and date the QC form and return it along with the checkprint and a revised document to the QC Reviewer who, acting as the Verifier, will confirm with green check marks on the checkprint that each comment is addressed satisfactorily. Should any comments be improperly addressed, the QC Reviewer will return both documents to the Author for additional changes. When the QC Reviewer is satisfied with all corrections, he/she will initial and date the QC form and return it to the Author with the documents. This action completes the document's QC review process. At the end of this process, all comments on the checkprint must be either highlighted in yellow or crossed in green; each comment must bear the QC Reviewer's green check mark.

At the closing of the QC review process, the Author will deliver to the PM a clean copy of the submittal document, the technical review and editorial review checkprints, and the QC form. The PM will inspect the checkprints and submittal document to verify that the process has been adequately followed, all comments were properly addressed, and the deliverable meets LADOTD's expectations. After completing this inspection, the PM will initial and date the QC form and prepare and sign the Certificate of Compliance (see Appendix H). The PM will

forward the checkprints, the submittal document, the completed QC form, and the signed Certificate of Compliance to the QAM.

As a final check, the QAM will verify that the QC process has been followed by reviewing the checkprints, the QC form, and the submittal document. If the QAM finds that the process was not adequately followed, he/she will return the documents to the PM with instructions for completing the missing elements. If the QAM is satisfied that the process has been followed, he/she will sign the Certificate of Compliance and return it along with the submittal document to the PM for delivery to LADOTD.

After completion of the QC and QA review process, the PM will archive the technical and editorial QC review checkprints, the QC form, a record copy of the submitted document, and a copy of the Certificate of Compliance in the project's QC files for record keeping. An electronic file of these items will also be created and saved in the QC folder of the project's directory.

Figure 3: Document Quality Control and Quality Assurance Process

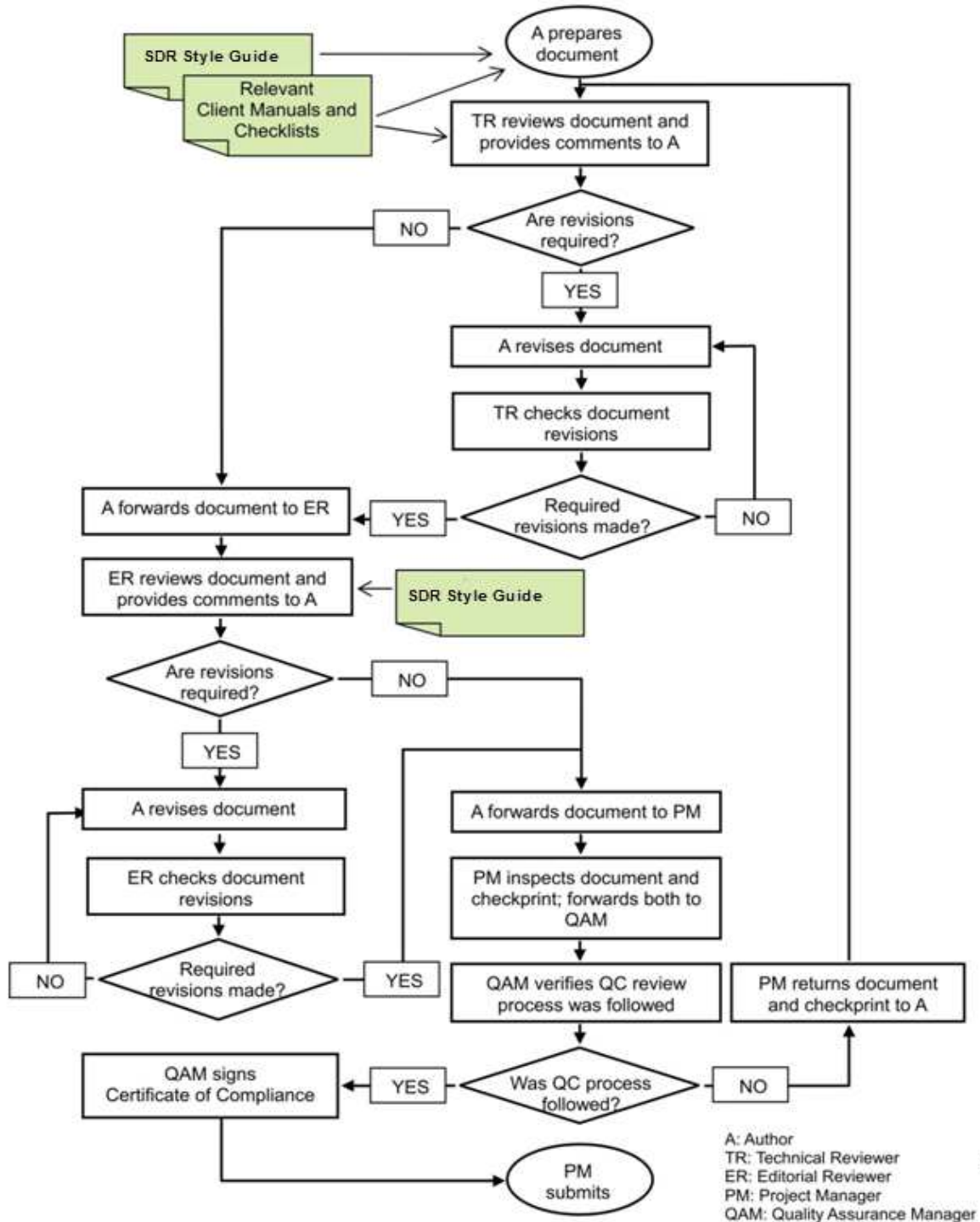


Figure 4: Quality Control Form for Documents
DOCUMENT QUALITY CONTROL FORM

Labor Charge Number	Project #		Task #	
Budget/Hours			Due Date	

PROJECT INFORMATION

Project Name	
Document Title	
Document Date	
Electronic File Name	
File Number	
Document Author(s)	
Project Manager	

TECHNICAL/EDITORIAL REVIEW

TECHNICAL REVIEW			NAME	INITIALS	DATE
	Primary Review (red=correction)	TR			
	Revised (yellow over red)	A			
	Revisions Reviewed (green check=OK green circle = additional correction)	TR			

EDITORIAL REVIEW	Primary Review (red=correction)	ER			
	Revised (yellow over red)	A			
	Revisions Reviewed (green check on revision=OK green circle = additional correction)	ER			
	PM Approval				
	QAM Approval				

SPECIAL INSTRUCTIONS FOR REVIEWER (IF ANY)

A = Author, Responsible for following document through process
TR = Technical Reviewer
ER = Editorial Reviewer
PM = Project Manager
QAM= Quality Assurance Manager

4.2 CHECKING OF DRAWINGS

Drawings are prepared by teams of staff, under the direction of Project Engineers/Planners/Scientists assigned by the PM. The drawings are developed progressively by an iterative process using provided sources of information, such as reports, record data, preliminary sketches, samples, and workups, in conformance with the requirements, design criteria, and standards and guidelines provided by LADOTD. Before a drawing is considered as a completed deliverable, it will be independently checked by a qualified QC Reviewer for:

- Conformance with the design criteria and project requirements.
- Completeness and clarity.
- Coordination with other aspects of the project, i.e., structural, civil, traffic, right-of-way, etc., and with other associated project documents.
- Compatibility of notes and references.
- CADD standards, graphic standards, and proper plans preparation practice.
- Coordination with adjacent projects.

The checking process used for drawings is described below and shown in Figure 5. The first formal issue of a drawing is the checkprint and is routed by its Originator (the responsible Project Engineer/Planner/Scientist) to the assigned QC Reviewer(s)/Checker(s). Multiple copies of checkprints may be routed to several QC Reviewers/Checkers of different departments with interfacing project responsibilities. The Originator will place the QC stamp, shown in Figure 6, on the first page/sheet of the checkprint and fill in the first line. The QC Reviewers/Checkers will inspect the project drawings to determine if they meet the objectives of the task and are complete, accurate, and suitable for their intended use.

Figure 5: Drawing and Calculations Quality Control and Quality Assurance Process

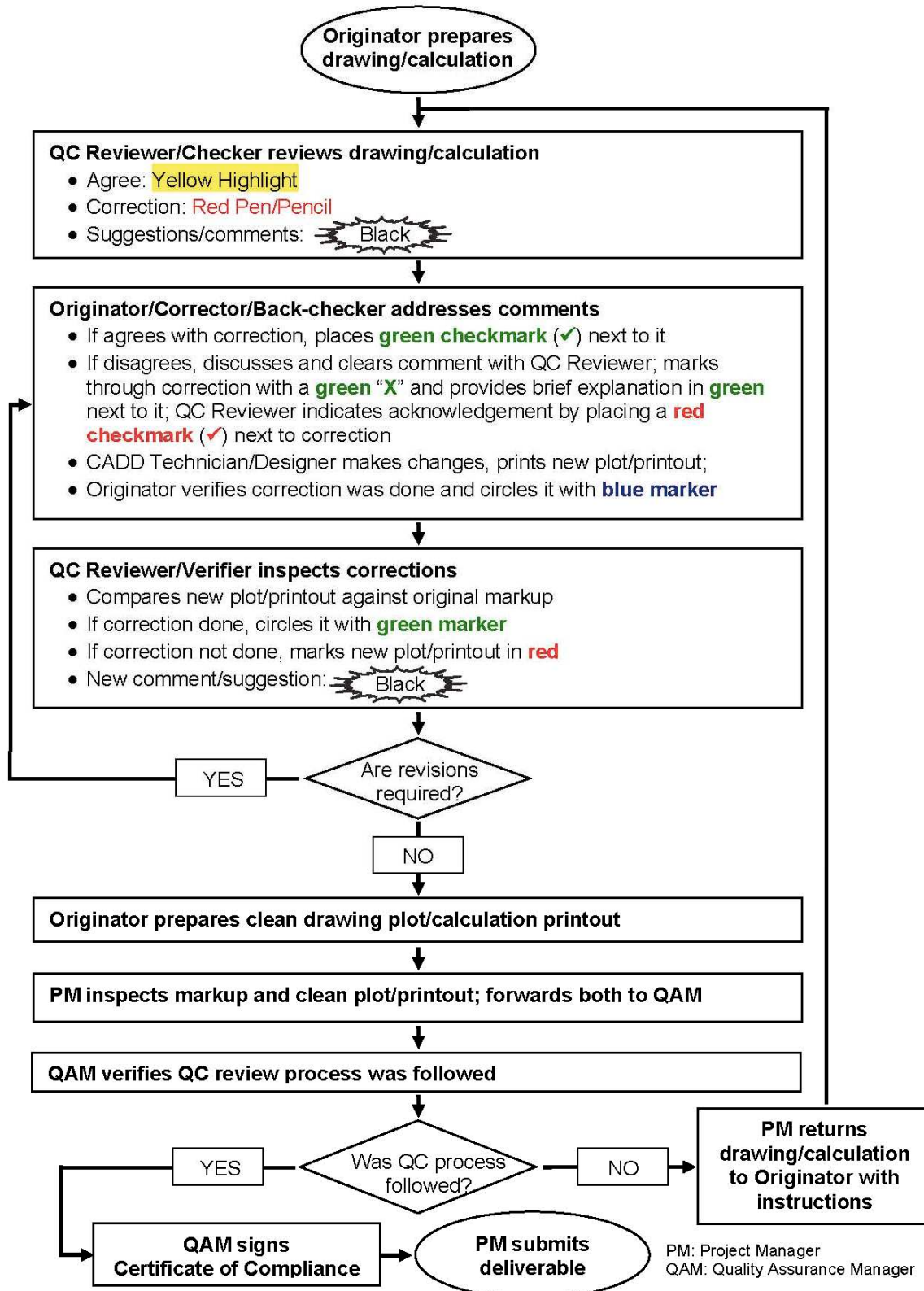


Figure 6: Drawing and Calculations QC Stamp

(Ready for Checking)	Signature	Date
Originator		
No. _____ Date _____ CHECKPRINT Dwg. Checked against calcs. and calc. check confirmed. By _____ Date _____ Checked _____ Date _____ Backchecked _____ Date _____ Corrected _____ Date _____ Verified _____ Date _____		
QC Process Approved By: _____		
Date _____		

All items on the drawing(s) must be marked by the QC Reviewer/Checker to indicate either agreement or disagreement. The following colors will be used:

- **Yellow highlight:** QC Reviewer/Checker agrees with the drawing or element.
- **Red marking:** area requiring correction.
- **Blue/Black marking:** relative comments noted by the QC Reviewer/Checker.

As the QC Reviewers/Checkers inspect and mark each drawing, they will initial in the bottom right corner of every page/sheet of the checkprint and will fill in the second line of the QC stamp. Following their review, the QC Reviewers/Checkers will return the checkprints to the Originator.

The Originator, acting as the Back-checker, will inspect and confirm the suggested corrections/comments, consolidate and coordinate comments from different QC

Reviewers/Checkers, and (if needed) consult with the Checkers and other appropriate person(s) to resolve any conflicts. A green check mark will be placed on the checkprint next to the comments that need to be addressed. Comments that are no longer valid, based on discussions between the Originator and the QC Reviewer(s)/Checker(s), will be crossed out with a green "X." A brief explanation will be written in green next to the comment. The QC Reviewer/Checker who made the comment will indicate his/her concurrence by placing a red check mark next to the comment. As the Originator/Back-checker reviews and addresses the comments on each drawing, he/she will also fill-in the third line of the QC stamp.

The Originator, acting as the Corrector, will decide on the proper follow-up actions for each comment and direct the CADD staff to perform the required changes on the CADD files. Once the CADD staff makes the corrections to the original CADD file(s), they will plot a clean set of the revised drawing(s). The Originator/Corrector will verify the corrections and, if satisfied, will mark with a blue circle the QC Reviewer's comment on the checkprint. After this task is completed, the Originator/Corrector will fill in the fourth line of the QC stamp and return both the checkprint and the clean drawing(s) to the QC Reviewer.

The QC Reviewer, acting as the Verifier, will back-check the revised drawing(s) against the checkprint. If the comment has been properly addressed, the QC Reviewer/Verifier will circle the comment in green. If a comment is not satisfactorily addressed and/or has new comments, the QC Reviewer/Verifier will mark the clean drawing and return both sets (revised drawings and original checkprints) to the Originator and the process will be repeated. The newly marked checkprints will be attached to the original checkprint set for record keeping. At the end of this process, all comments on the checkprints will be either circled in blue and green or crossed out in green. After all corrections are acceptably verified by the QC Reviewer/Verifier, he/she will fill in the fifth line of the QC stamp.

At the closing of the QC review process, the Originator will deliver to the PM the checkprint(s) and clean copies of the submittal drawing(s). The PM will inspect the checkprint(s) and submittal drawing(s) to verify that the process has been adequately followed, all comments were properly addressed, and the drawing(s) meet LADOTD's expectations. After completing this inspection, the PM will fill in the sixth line of the QC stamp and prepare and sign the Certificate of Compliance. The PM will forward the checkprint(s), the submittal drawing(s), and the signed Certificate of Compliance to the QAM.

As a final check, the QAM will verify that the QC review process has been followed by inspecting the checkprint, the QC stamp, and the submittal drawing(s). If he/she is satisfied that the process has been followed, the QAM will also sign the Certificate of Compliance, which will be submitted by the PM to LADOTD with the submittal drawing(s). If the QAM finds that the process was not adequately followed, he/she will return the drawing(s) to the PM with instructions for completing the missing elements.

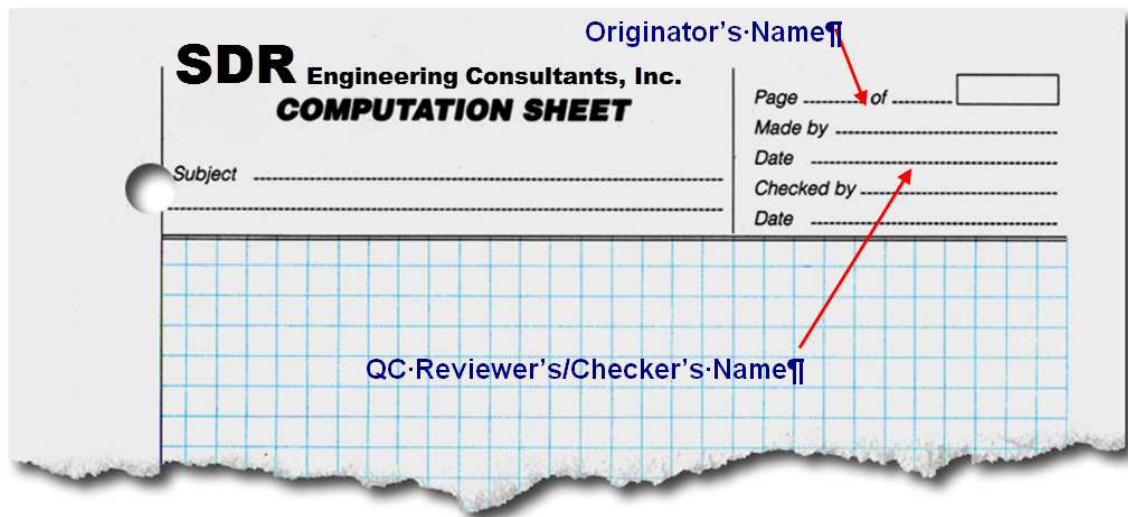
After completion of the QC and QA processes, the PM will archive the checkprint(s), a record copy of the submitted drawings, and a copy of the Certificate of Compliance in the project's

QC files for record keeping. An electronic file of these items will also be created and saved in the QC folder of the project's directory.

4.3 CHECKING OF CALCULATIONS

Calculations can be either manual or computer generated printouts. Manual calculations will be prepared in pencil on the standard SDR computation sheets, shown in Figure 7. A calculation may also include supporting information – such as forms, charts, graphs, data sheets, and others, which must be attached to the computation sheets. Assumptions upon which calculations are based will be stated in the calculations. Assumptions with limited application should immediately precede the calculations to which they apply.

Figure 7: SDR Manual Computation Sheet



SDR Engineering Consultants, Inc.
COMPUTATION SHEET

Originator's Name _____

Page _____ of _____

Made by _____

Date _____

Checked by _____

Date _____

Subject _____

QC-Reviewer's/Checker's Name _____

The Designer is responsible for creating and maintaining the design calculations for the assigned structure in a neat and logical manner which is conducive to checking and in accordance with this policy.

1. Title page with Structure Drawing Number, Structure Name, Design Calculations title, and Designers names.
2. Table of Contents.
3. Design Criteria Summary (include a list of applicable AASHTO and LADOTD design specifications used in the design).
4. Design Criteria Exceptions (a list of any deviations from the project design criteria, along with the approval documentation).
5. List of computer programs and spreadsheets used in the design.
6. Completed Design & Detailing Progress Form.
7. Use standard letter-sized paper for computer generated calculations.

8. Number all pages with a numbering scheme that covers the entire set of calculations.
9. Identify the appropriate code references in the right hand column of the calculations.
10. Reference computer programs and indicate appropriate code section. Computer documentation includes: name of program, vendor, version, and release date.
11. Include Bridge Type Selection Report and Seismic Strategy Report.
12. Bridge Load Rating Report and Calculations.

After completion of his/her task, the Originator (the designer/analyst responsible for the calculations) will create a checkprint consisting of copies of all computation sheets, computer printouts and any other related support attachments. He/she will place the QC stamp, shown in Figure 6, on the first page of the checkprint, or, if necessary, on the back of the first page to avoid clutter, and will fill in the first line of the QC stamp.

The Originator will review the data and the Scope of Services with the assigned QC Reviewer/Checker. The Originator will provide the QC Reviewer/Checker with design criteria, copies of pertinent information, and related documents and calculations.

The QC review will include verification of the introductory material on the calculation sheet, the assumptions, and the calculations. The QC Reviewer/Checker will verify that all information is appropriate, correct, complete, consistent, legible, and reproducible. The QC Reviewer/Checker will mark all items on the calculation sheets and all printouts to indicate his/her agreement or disagreement and initial the bottom right corner of each inspected page/sheet. The following is the color code to be used for marking calculations:

- **Yellow highlight:** QC Reviewer/Checker agrees with the calculation, assumption, etc.
- **Red marking:** calculation, assumption, etc., requiring correction.
- **Black marking:** relative comments noted by the QC Reviewer/Checker.

Following his/her review, the QC Reviewer/Checker will fill in the second line of the QC stamp and return the checkprint to the calculations Originator. The Originator, acting as the Back-checker, will inspect and confirm the suggested corrections/comments, consolidate and coordinate comments from different QC Reviewers/Checkers, and (if needed) consult with the QC Reviewers/Checkers and other appropriate person(s) to resolve any conflicts. Green check marks will be placed on the checkprint next to the comments that need to be addressed. Comments that are no longer valid, based on discussions between the Originator and the QC Reviewer(s)/Checker(s), will be crossed out with a green "X" and a brief explanation will be written in green next to the comment. After completion of this task, the Originator/Back-checker will fill in the third line of the QC stamp.

The Originator, acting as the Corrector, will make the necessary revisions to the calculation sheets and/or printouts to address the comments. As each comment is addressed, the Originator/Corrector circles the comment in blue on the checkprint. After completion of this task, the Originator/Corrector will fill in the fourth line of the QC stamp and print a revised,

clean calculations set. Both the checkprint and the clean calculations set will be then returned to the QC Reviewer(s).

The QC Reviewer(s), acting as the Verifier(s), will compare the revised calculations set against the original checkprint. If he/she finds that the comment has been properly addressed, the QC Reviewer/Verifier will circle the comment in green on the original checkprint. If he/she finds that a comment is not satisfactorily addressed and/or has new comments, the QC Reviewer/Verifier will mark the revised calculations set, return both sets to the Originator, and the process will be repeated. The newly marked checkprints will be attached to the original checkprint set for record keeping. At the end of this process, all comments on the checkprints will be either circled in green and blue or crossed out in green. After all corrections are acceptably verified by the QC Reviewer/Verifier, he/she will fill in the fifth line of the QC stamp.

At the closing of the QC review process, the Originator will deliver to the PM the checkprint(s) and a clean copy of the submittal calculations. The PM will inspect the checkprint(s) and submittal calculations to verify that the QC process has been adequately followed, all comments were properly addressed, and the calculations meet LADOTD's expectations. After completing this inspection, the PM will fill in the sixth line of the QC stamp and prepare and sign the Certificate of Compliance. The PM will forward the checkprint(s), the submittal calculations, and the signed Certificate of Compliance to the QAM.

As a final check, the QAM will verify that the QC review process has been followed by inspecting the checkprint, the QC stamp, and the submittal calculations set. If he/she is satisfied that the process has been followed, the QAM will also sign the Certificate of Compliance, which will be submitted by the PM to LADOTD with the submittal calculations. If the QAM finds that the process was not adequately followed, he/she will return the checkprint and final calculations set to the PM with instructions for completing the missing elements.

After completion of the QC and QA processes, the PM will archive the checkprint(s), a record copy of the submitted calculations, and a copy of the Certificate of Compliance in the project's QC files for record keeping. An electronic file of these items will also be created and saved in the QC folder of the project's directory.

See Appendix E for the **DESIGN CALCULATIONS CHECKLIST** and also Appendix F for **STRUCTURE DESIGN CERTIFICATION FOR DESIGN CALCULATIONS**.

4.4 60% DESIGN REVIEW

When the structure drawings have progressed to the point where the design of major structure elements are adequately illustrated (at or near 60% completion), the Senior Design Engineer will conduct a 60% Design Review. The purpose of this review is to identify any design flaws that will significantly affect the design before significant work effort is performed to the point where it becomes prohibitive to modify the design. The 60% Design Review is not a detailed check of the design or the drawings, but a check of the general concept and functionality of the structure. This review occurs prior to the final drawing check. Scheduling the 60% Design Review as early in the design process as possible will improve the opportunity to incorporate

quality, efficiency, and economics into the design without significant redesign. This review may also identify structural elements that require special design procedures. For unusual or complicated structures, the Senior Design Engineer may organize a review team to participate in this review. The review team may include representatives from the LADOTD bridge group, inspection group, construction, maintenance, and other design disciplines.

The Reviewer will check the design for constructability, maintainability, inspectability, and that the standard details are correctly applied. The Reviewer will verify that the design matches the project criteria and scope, and that all aesthetic and environmental requirements are being incorporated into the structure. The final seismic strategy report will also be reviewed.

The 60% Design Review submittal will typically include the following unchecked drawings:

60% REVIEW PLAN SUBMITTAL CONTENT		
BRIDGE	OVERHEAD SIGN STRUCTURE	OTHER STRUCTURE TYPES
Situation & Layout Soil Data Sheets Pile Details Foundation Plan Abutment Details Bent Details Framing Plan Girder Details Camber Diagrams Diaphragms / Cross-frames Bearings Post-Tensioning and/or Prestressing Details Deck Details Screed Elevations Parapet Details Other Major Element Details	Sign Location Sign Panel Geometry Sign Support Geometry Roadway Typical Sections Foundations	All Details (unchecked)

The 60% Design Review includes the following elements:

1. **Standard Details.** Verify that standard details are used appropriately. Ensure that any nonstandard details are appropriate.
2. **Constructability.** Check the plans for problems that would impact construction. Identify details that would require the Contractor to do the impossible or near impossible. Identify details or construction sequencing that can be modified to improve constructability without impacting the quality or design life of the completed structure.
3. **Inspectability.** Verify that all major components of the completed structure are accessible for inspection.

4. **Maintainability.** Check the major elements of the bridge for built-in problems that would impact bridge maintenance. For instance, verify that the deck drains will not soak the girders or substructure. Identify potential problems that can be avoided.
5. **Compatibility** with the surrounding environment and adjacent project elements, compliance with project aesthetics and environmental requirements, etc.
6. **Significant Design Flaws.** Identify any design flaws that will significantly affect the design and construction.

Each Reviewer fills out and signs the 60% Design Review Checklist and gives it to the Designer who places a copy with the QC documentation and a copy in the design calculations.

See Appendix B for **60% DESIGN REVIEW CHECKLIST**.

4.5 CADD STANDARDS DRAWING CHECK

The Originator of the work has the primary responsibility for compliance with LADOTD Structures CADD Standards. The Originator should not rely upon the checking process to find and correct his/her mistakes.

All completed drawings will be checked to verify compliance with correct drafting practices and LADOTD CADD Standards. This will provide consistency of structures plan drawings and ensure that proper CADD procedures are followed. The CADD Standards Check occurs prior to the drawing QC check. If the drawing does not meet CADD Standards, it will be corrected before proceeding with the drawing QC check.

The CADD Standards Drawing Check is completed by a Senior Design Technician, as assigned by the Senior Design Engineer, to check MicroStation data for compliance to Standards and Procedures. This check is performed on all files that will be released for construction.

The CADD Standards Check will check for the following:

1. All CADD contract drawings are produced in the current MicroStation format according to LADOTD CADD Standards.
2. Proper file naming conventions are followed. File names reflect the nature of their contents.
3. Correct line styles are used and are on the correct levels. Correct text size and type are used.
4. All details are drawn to scale.
5. Reference files (stored as read only) are used, as opposed to the copying of existing data (as appropriate).
6. Correct seed files or libraries of standard features/details (stored as read only) are used. No changes to an existing approved standard may be made without the approval of the Senior Design Engineer.

7. All CADD-produced prints will automatically produce the date, time and filename printed outside the left border.
8. When the CADD Standards Check is complete, fill out and sign the CADD Standards Drawing Review Checklist. The checklist will be kept with the QC documentation for the structure. Also, place a copy in the Design Calculations.

See Appendix C for **CADD STANDARDS CHECKLIST**.

4.6 CHECKING STRUCTURE DRAWINGS

The checking of structure drawings requires a minimum of two individuals: a checker/ verifier, and an originator/back checker. In most cases, the Originators of the drawing are the Designer and the Detailer. The Checker/Verifier is a designer not involved in the original design. Do not begin the final drawing check until the design calculations are complete and checked and the CADD Standards Check is complete.

4.6.1 Completing the Drawing

A drawing is considered complete and ready for checking when the Originator certifies that the content is complete and accurate and that the detailing and CADD work follow all applicable standards. The Originator is responsible for the completeness and accuracy of the drawing, and should not rely on the checking process to correct errors in content and format.

As each drawing is completed in final format and deemed ready for checking, the Originator initials the title block of the drawing, makes a Check Print copy, affixes numbers, and dates the Check Print stamp on the print of each drawing. When all drawings for the structure are complete and stamped, the Designer gives them as a complete package to the Checker.

4.6.2 Checking

The Checker checks the Check Prints of the drawings for completeness, consistency throughout the plan set, technical adequacy and conformance to any applicable standards and format, and performs specific accuracy checks required for that type of drawing. In cases where individual drawings are checked (not as a complete plan set), the Checker must check the completed plan set for completeness and consistency between drawings before the checking is considered to be complete.

The Checker checks each drawing to ensure that it accurately represents the design as described in the corresponding design calculations, and verifies that those calculations have been properly checked. This includes the checking of quantities. The Checker should not proceed with the drawing check unless the calculations have been checked. The Checker documents the checking process by highlighting in **yellow** on the Check Print each part checked that is found to be correct, and marking in **red** on the Check Print any required corrections, additions, or deletions.

***NOTE:** Red or yellow should not be used to note comments or instructions. These colors are reserved for the checking process. Write comments or instructions in blue.*

The Checker will check all details on the drawing for adequacy, completeness, correctness, clarity, appropriate proportions, and proper dimensioning. All text and notes will be checked for correctness and applicability. The quantity subtotals and totals will be checked. The completed check print will show that all drawing elements (details, text, notes, etc.), without exception, have been checked by being marked either in yellow or red. The Checker will also compare the details and information on each sheet with the same or similar information on other sheets to ensure that there are no conflicts and that all elements fit together properly.

When the checking is complete, the Checker signs and dates the Check Print stamp and returns it to the Originator.

NOTE: *In the case where no corrections, additions or deletions are found, there is no need for back checking or further signatures on the Check Print stamp. The Check Print and original drawing, signed in the appropriate checked block, is returned to the Originator for placement in the project file.*

4.6.3 Back Checking

The Originator (acting as Back Checker) reviews the Checker's marks on the Check Print and personally makes or supervises the update of the Drawing Original. To document the back checking process, the Originator:

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

NOTE: The Back Checker and Checker should resolve differences encountered during the checking process so they are not repeated over and over again. If resolution cannot be achieved by the two individuals, the Senior Design Engineer should be requested to resolve the differences.

- c. Signs and dates the Check Print stamp.

4.6.4 Correcting the Drawing Original

The Drawing Original is corrected by the Detailer under the supervision of the Designer (Originator). As Check Print corrections are made to the Drawing Original, the person making the changes circles in **green** each correction as incorporated. When all corrections are complete, the person correcting the drawing signs and dates the Check Print stamp.

4.6.5 Verifying the Corrected Check Print

The Verifier (usually the Checker) verifies the corrected drawing against the Check Print to assure that the agreed-upon corrections have been incorporated without error.

If the corrections are not made or are made incorrectly, the Check Print with penciled instructions is returned to the corrector. The Verifier marks in **yellow** each green-circled item after reviewing its incorporation on the Original Drawing. At the conclusion of the checking process, everything on the drawing should be marked in yellow.

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

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

At the completion of the QC Review, all check boxes in the drawing title block should be initialed. The Design and Detailing Progress form will also be completely filled out (hand initialed) at this time.

To complete the checking process, the Designer of Record fills out the project information on the Design Certification for Design Plans form and seals and signs the Design Certification section. The Checker seals and signs the Design QC Certification section.

4.6.6 Disposition of the Checked Drawing

The completed original (or CADD file) is placed under the control of the Senior Design Engineer to prevent further changes to the drawing that could invalidate the checking which has been done.

4.6.7 Additional Changes or Corrections

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

4.6.8 Preparing Technical Special Provision

Specifications define work items that are not and/or cannot be defined completely in the plans. For the purpose of this document, the term *specification* refers to a *Special Provision*.

A qualified engineer/designer composes and drafts the specification under the direction of the Senior Design Engineer. The Originator verifies that the new special provision will not duplicate or inadvertently supersede other specifications.

Complete all specifications and special provisions prior to the PS&E review to allow other design and construction disciplines to review the changes or additions prior to release for construction.

4.6.9 Engineer's Estimate

Ensure that the Engineer's Estimate is complete and accurate by doing the following:

1. List each bid item and quantity exactly as shown in the plans.

2. Match the bid item numbers and names with the applicable specifications and plan quantities.
3. When a specification defines a new bid item, add it to the project estimate and to the Measurement and Payment specification.
4. Provide the quantity and unit price for each item.
5. Verify that the unit costs are reasonable for the bridge type and location.

4.6.10 Measurement and Payment Specification

Check the Measurement and Payment document for correctness and completeness of structure items. Add additional items and information as necessary.

4.7 QC FOR ELECTRONIC DELIVERY

For the required electronic delivery process to be implemented, SDR will produce electronic deliverables in conformance with the LADOTD Software and Deliverable Standards for Electronic Plans document. The SDR team will follow LADOTD procedures and requirements in the Professionals Electronic Delivery System for complete electronic delivery (ED) of the project. SDR will upload (or check in) electronic deliverables directly into the LADOTD ProjectWise repository at each plan delivery milestone.

4.8 RESOLUTION OF TECHNICAL DIFFERENCES

During the QC review process; there may be differences in opinions between the QC Reviewer and the Originator on whether a comment is valid or how it should be addressed. If the QC Reviewer does not agree with the way his/her comment was addressed, he/she will first discuss the matter with the Originator. If the difference in opinion cannot be resolved through the discussion, the QC Reviewer will inform the PM on the issue, who will then seek the assistance of a senior technical expert to resolve the difference. If necessary, the issue will be taken to the Department Manager and/or Principal-in-Charge for resolution.

See Appendix G for **STRUCTURES COMMENTS AND RESOLUTION SHEET**.

5.0 DOCUMENTATION OF COMMENTS/RESPONSES AND QUALITY

5.1 DOCUMENTATION OF COMMENTS AND RESPONSES

All comments made by external reviewers will be recorded either by memos, letters or marked plans received from the reviewers. In the event that comments are received through meetings with reviewers, minutes summarizing the comments received will be prepared. Comments received by a project team member other than the PM will be forwarded to the PM. Where it is necessary to discuss and clarify the comments with the reviewer(s) prior to responding, the PM will arrange for the meeting.

The Project Engineers/Planners/Scientists, who are responsible for the deliverable on which comments were received, will prepare responses to the comments. The responses will be written in a memorandum format and, at minimum, will include the deliverable's review date, the reviewer's name, the responder's name, the reviewer's comments and the responses to the comments. The PM will review all comments and responses before submitting them to the LADOTD. The comments/responses memorandum is considered a project deliverable and will undergo the document QC and QA review processes. The PM will be responsible for the submittal of the comments/responses memorandum to the appropriate reviewing entity of the LADOTD.

Electronic Review Comments (ERC) will be responded to via the internet using the format integrated into the ERC system and responded to in a manner similar to that described above. The ERC review comments and responses will be posted on the LADOTD internet address and will be checked monthly following each phase submittal.

After submittal of the comments/responses memorandum to the LADOTD and verification by the PM that the responses are acceptable, the Project Engineers/Planners/Scientists responsible for the deliverable will make necessary revisions in accordance with the responses. Each comment/response on the memorandum will be initialed by the appropriate Project Engineer/Planner/Scientist, indicating that they have verified that the comment response has been implemented.

5.2 QUALITY ASSURANCE RECORDS

The PM will be responsible for maintaining copies of the submitted comments/responses memorandums, the QC review checkprints and forms of the memorandums, and the initialed memorandums in the project files.

6.0 CONTROL OF SUBCONSULTANT QC PROCESS

Coordination will be maintained with all subconsultants throughout the project. Attention will be placed on critical path activities involving subconsultants. The subconsultants will be provided with the information they need in a timely manner to help them accomplish their tasks. Regular meetings will take place to facilitate this coordination and give them direction on the expected deliverables.

As part of their QC plans, the subconsultants will conduct quality reviews of their submittals to SDR. The subconsultants will provide evidence of their QC reviews to SDR, which the PM will archive within the project's QC files. Prior to the use of each subconsultant's deliverable or its incorporation into other project work, and/or its submission to LADOTD, the PM will check this work for technical adequacy, consistency with the Scope of Services, and for meeting the project's quality requirements. This review, however, will not substitute for the QC and QA review process that each subconsultant must implement in accordance with their QC plans.

7.0 QUALITY RECORDS AND AUDITS

7.1 QUALITY RECORDS

The PM is responsible for maintaining QC and QA records for all project deliverables. At a minimum, the following items will be archived in the project's files for each submitted deliverable:

- The QC review checkprint(s); the checkprints can be in various formats:
 - Paper format with hand written markups.
 - Electronic .pdf files produced from scanning paper copies and saved in the project's directory (drawings or documents).
 - Electronic Microsoft Word file using the track changes feature and saved in the project's directory (documents).
- A record hard copy of the submitted deliverable; record copies will be stamped as such.
- The QC form (for documents only).
- The Certificate of Compliance.

7.2 INTERNAL QUALITY AUDITS

In accordance with our QC/QA policy, SDR conducts annual quality audits for a sampling of projects at each office location. The project quality audits are conducted by certified internal auditors who are independent of the projects.

Appendix A

STRUCTURES SITUATION & LAYOUT DESIGN APPROVAL

SDR Engineering Consultants, Inc.**STRUCTURES SITUATION & LAYOUT DESIGN APPROVAL**

Project Number: _____ Project Name: _____

PIN: _____ Structure No.: _____ Structure Type: _____

Structure Description: _____

ATTACHED ITEMS:*The following items are completed and attached:*

- ☐ Situation & Layout sheet (s)
- ☐ Design Plan Design Quality Certification (completed for S& L plan sheets)
- ☐ Bridge Type Selection Report
- ☐ Preliminary Seismic Strategy Report
- ☐ List of Computer Software to be used in Final Design
- ☐ Design Criteria
- ☐ Design Exceptions Approval Form (if applicable)

LEAD STRUCTURAL DESIGNER*I certify that the attached Situation & Layout plans for the specified structure are complete, meet all applicable design requirements, and are ready for approval.*

Signature: _____ Date: _____

Design Firm: _____

APPROVAL*I approve the submitted Situation & Layout plans for the specified bridge.*

Signature: _____ Date: _____

Note: Approval of Situation & Layout plans is required prior to beginning the final design. Approval requires the submittal of all items listed in the Attached Items box.

Appendix B

60% DESIGN REVIEW CHECKLIST

SDR Engineering Consultants, Inc.
60% DESIGN REVIEW CHECKLIST

Project Number:

Project Name:

Structure No.:

Structure Type:

Structure Description:

<u>Inc.</u>	<u>N/A</u>	<u>TASK</u>	<u>PHASE</u>
☐	☐	Design Criteria Summary	
☐	☐	Consultant Submittal QC/QA Certification	
☐	☐	Design Calculations	
☐	☐	Flexural Design	
☐	☐	Shear Design	
☐	☐	Bearing Design	
☐	☐	Development of Special Details	
☐	☐	General Notes	
☐	☐	Girder Properties and Strand Pattern Template	
☐	☐	Girder Details	
☐	☐	Girder End Details	
☐	☐	Build-Up and Deflection Diagrams	
☐	☐	Miscellaneous Details	
☐	☐	Bearing Details	
☐	☐	Transportation and Handling Guidelines	
☐	☐	Girder Span Details	
☐	☐	Typical Span Details	
☐	☐	Data Tables	
☐	☐	Girder Data Table	
☐	☐	Build-Up and Deflection Data Sheet	

Reviewer's Signature: _____ Date: _____

Appendix C

CADD STANDARDS CHECKLIST

SDR Engineering Consultants, Inc.
CADD STANDARDS CHECKLIST

Project Number: _____ Project Name: _____
PIN: _____ Structure No.: _____ Structure Type: _____
Structure Description: _____
Plan Sheet Number: _____ Plan Sheet Name: _____
Filename: _____ Directory: _____

AT A MINIMUM, CHECK THE FOLLOWING:

Drawing Organization:

- ☐ All CADD contract drawing are produced in MicroStation format according to LADOTD CADD Standards
- ☐ File directory structure matches CADD Standards requirements
- ☐ File names comply with CADD Standards requirements. File names reflect the nature of their contents
- ☐ Reference files (stored as read only) are used instead of copying existing data into file
- ☐ Drawings/Details are referenced properly
- ☐ Correct seed files or libraries of standard details (stored as read only) are used
- ☐ Any changes to seed files are approved by the Senior Design Engineer
- ☐ All unnecessary (temporary) files are deleted from all directories

Drawing Content:

- ☐ Drawing is flattened (Drawn 2D)
- ☐ All details are drawn to scale
- ☐ Correct line styles are used and are on the correct levels
- ☐ Text is correct size and type
- ☐ All CADD-produced prints automatically produce the date, time, and filename printed
- ☐ Drawing compiles with LADOTD Structures Division Drafting Standards
- ☐ All dimensions are auto-dimensioned & auto-annotation is used as appropriate
- ☐ Use of tags and file referencing is used appropriately

REVIEWER

Signature: _____ Date: _____

Note: Record any comments on the Structures Review Comment Form.

Appendix D

FINAL DESIGN QA REVIEW CHECKLIST

SDR ENGINEERING
FINAL DESIGN QA REVIEW CHECKLIST

Project Number: _____

Project Name: _____

PIN: _____

Structure No.: _____

Structure Type: _____

Structure Description: _____

ATTACHED ITEMS:*The following items are completed and attached:*

- | | |
|---|--|
| ☐ 100% Structure Plan Set | ☐ Design Criteria Summary |
| ☐ Special Provisions | ☐ Approved Design Exceptions |
| ☐ Engineer's Estimate | ☐ Computer Design Software List |
| ☐ Electronic Design Files (MicroStation) | ☐ Final Seismic Strategy Report |
| ☐ Completed Design Certifications Forms | ☐ Bridge Load Rating Report |
| ☐ Final Bridge Design Calculations | ☐ Geotechnical Report |
| ☐ Independent Review Documentation (when required) | ☐ Previous Review Comments With Response & Dispositions |
| ☐ 60% Design Review Checklist | |

AT A MINIMUM, CHECK THE FOLLOWING:Completeness:

- ☐ Plans are complete, sealed and signed by Louisiana PE
- ☐ Special Provisions included for all work/bid items
- ☐ Engineer's Estimate complete
- ☐ Bid costs are reasonable
- ☐ Calculations are complete and organized
- ☐ Previous comments addressed
- ☐ Design Approvals
- ☐ Load Rating complete and summarized properly
- ☐ Design Checklists complete & included with calculations

General:

- ☐ Design Meets Design Intent
- ☐ Seismic Strategy implemented appropriately
- ☐ Design software acceptable
- ☐ Detailing matches standards
- ☐ Standard Details are used appropriately
- ☐ Plan Quantities match Engineer's Estimate
- ☐ Compiles with Aesthetic requirements
- ☐ Significant design issues noted (Use comment form)

Constructability:

- ☐ Design accommodates constructability
- ☐ Horizontal and Vertical clearances accommodates constructability
- ☐ Constructible details are used
- ☐ Construction sequencing is adequately addressed
- ☐ Shoring/Temporary Supports are adequately addressed
- ☐ Assess need for Contractor to submit Erection Plan

Maintainability:

- ☐ Appropriate materials used
- ☐ Maintenance-friendly details used
- ☐ Maintenance access provided as necessary

Inspectability:

- ☐ Inspection access is provided to all necessary components (bearings, expansion joints, closed sections, abutment backwalls, etc.)
- ☐ Inspection access meets safety requirements

Security:

- ☐ Public access to sensitive areas is prevented

REVIEWER*The specified bridge design documents are complete and recommended for approval.*

Signature: _____

Date: _____

Note: Record any comments on the Structures Review Comment Form.

Appendix E

DESIGN CALCULATIONS CHECKLIST

SDR Engineering Consultants, Inc.
DESIGN CALCULATIONS CHECKLIST

Project Number: _____ Project Name: _____

PIN: _____ Structure No.: _____ Structure Type: _____

Structure Description: _____

INCLUDE THE FOLLOWING:Organization:

- ☐ Title page with Structure Drawing Number, Structure Name, Design Calculations title, Designer's name
- ☐ Table of Contents
- ☐ Uses standard Structures Division letter-sized calculation sheets for handwritten calculations and sketches
- ☐ Uses standard letter-sized paper with standard Structures heading for computer generated calculations
- ☐ All pages numbered with numbering scheme that covers entire set of calculations
- ☐ Identifies appropriate code references in right hand column
- ☐ Computer documentation includes: name of program, vendor, version number, and release date
- ☐ Calculations cross-reference computer output as appropriate
- ☐ Stored in three-ring binder
- ☐ Check calculations stored in separate three-ring binder

Content:

- ☐ Complete Final Calculations
- ☐ All Design Certifications (place at beginning of calculations)
- ☐ All Design Approvals
- ☐ Design Criteria Summary
- ☐ Design Criteria Exceptions
- ☐ List of Computer Programs and Spreadsheets
- ☐ Bridge Type Selection Report
- ☐ Seismic Strategy Report (includes calculations)
- ☐ Load Rating Report
- ☐ Alternate Design Quality Plan Approval
- ☐ Completed Design Checklists
- ☐ Review Comments with Responses and Dispositions

REVIEWER

Signature: _____ Date: _____

Note: Record any comments on the Structures Review Comment Form.

Appendix F

STRUCTURE DESIGN CERTIFICATION FOR DESIGN CALCULATIONS

6/30/11

FORM SQ-1

SDR STRUCTURE DESIGN CERTIFICATION FOR DESIGN CALCULATIONS	
Project Number: _____ Project Name: _____ PIN: _____ Structure Number: _____ Structure Type: _____ Structure Description: _____ Type: ☐ Design Calculations ☐ Design / Field Change Certification For: ☐ Complete Design ☐ Partial Design Specify: _____ Structures Quality Plan: ☐ SDR Structures QP ☐ Modified SDR Structures QP ☐ Approved Alternate	
DESIGN CERTIFICATION (Designer of Record) <i>By stamping and signing this section, I certify that the design documents specified comply with the requirements of the Project Design Criteria, including applicable AASHTO design specifications, and the Structures Design Quality Plan specified.</i> Print Name: _____ Date: _____ Design Firm: _____	PE Stamp (signed & dated)
DESIGN QC CERTIFICATION <i>By stamping and signing this section, I certify that the design calculations have been checked in accordance with the requirements of the Structures Design Quality Plan specified.</i> Print Name: _____ Date: _____ Design Firm: _____	PE Stamp (signed & dated)
DESIGN QA CERTIFICATION <i>By stamping and signing this section, I certify that I have verified that the QC for the design calculations specified above has been completed in accordance with the requirements of the Structures Design Quality Plan specified.</i> Print Name: _____ Date: _____ Design Firm: _____	PE Stamp (signed & dated)
Notes: 1. Design Certification is required for permanent structures of all types, including Bridge, Box Culvert, Multi-Plate Arch, Retaining Walls, Overhead Sign Structures, and Traffic, Signal, and Camera poles. 2. Attach signed approval forms for any approved modifications to the Structures Design Quality Plan. 3. Maintain all QC/QA records for a minimum of 3 years after project completion.	

Appendix G

STRUCTURES COMMENTS AND RESOLUTION SHEET

Appendix H

SAMPLE CERTIFICATIONS

STRUCTURES DESIGN CERTIFICATION FOR DESIGN PLANS

6/30/11

FORM SQ-2

SDR STRUCTURE DESIGN CERTIFICATION FOR DESIGN PLANS

Project Number: _____ Project Name: _____

PIN: _____ Structure Number: _____ Structure Type: _____

Structure Description: _____

Submittal Type: ☐ S&L ☐ Final Design ☐ Design / Field Change ☐ As-Built

Certification For: ☐ Complete Design ☐ Partial Design. Specify: _____

Structures Quality Plan: ☐ SDR Structures QP ☐ Modified SDR Structures QP
☐ Approved Alternate

DESIGN CERTIFICATION (Designer of Record)

By stamping and signing this section, I certify that the design plans specified above comply with the requirements of the LADOTD Structures Design & Detailing Criteria.

Print Name: _____ Date: _____

Design Firm: _____

PE Stamp (signed & dated)

DESIGN QC CERTIFICATION

By stamping and signing this section, I certify that the design documents specified have been checked in accordance with the requirements of the Structures Design Quality Plan specified.

Print Name: _____ Date: _____

Design Firm: _____

PE Stamp (signed & dated)

DESIGN QA CERTIFICATION

By stamping and signing this section, I certify that I have verified that the QC for the design documents specified above has been completed in accordance with the requirements of the Structures Design Quality Plan specified.

Print Name: _____ Date: _____

Design Firm: _____

PE Stamp (signed & dated)

CADD STANDARDS CERTIFICATION

By signing this section, I certify that the structure plans specified above comply with the UDOT Structures CADD Standards.

Signature: _____ Design Firm: _____ Date: _____

Notes: (1) Design Certification is required for permanent structures of all types, including Bridge, Box Culvert, Multi-Plate Arch, Retaining Walls, Overhead Sign Structures, and Traffic, Signal, and Camera poles. (2) Attach signed approval forms for any approved modifications to the Structures Design Quality Plan. (3) Maintain all QC/QA records for a minimum of 3 years after project completion.

STRUCTURES FINAL DESIGN APPROVAL

6/30/10

Form SA-3

SDR STRUCTURES FINAL DESIGN APPROVAL	
Project Number: _____	Project Name: _____
PIN: _____	Structure Number: _____
Structure Type: _____	
Structure Description: _____	
ATTACHED ITEMS <i>The following items are completed and attached:</i> ☐ Completed Structure Plans (Signed & Sealed) ☐ Specifications (Special Provisions) ☐ Engineer's Estimate ☐ Final QA Review Checklist ☐ All Design Certification Forms (for Final Design) ☐ Design Criteria Summary ☐ Approved Design Exceptions ☐ Computer Design Software List ☐ Final Seismic Strategy Report ☐ Geotechnical Report ☐ Bridge Load Rating Report ☐ Structure Design Calculations* ☐ Independent Review Checklist, Letter Report and Calculations (when required) ☐ Previous Review Comments With Responses & Final Dispositions ☐ Any other final design documents and reports, as appropriate	
LEAD STRUCTURAL DESIGNER <i>I certify that the attached Final Design Plans, Specifications and Estimate for the specified structure are complete, meet all applicable design requirements, and are ready for approval.</i>	
Signature: _____	Date: _____
Design Firm: _____	
APPROVAL <i>The submitted Final Design Plans, Specifications and Estimate for the specified structure are Approved for Construction.</i>	
Signature: _____	Date: _____
<i>Note: Approval of Final Design plans is required prior to advertising the project. Approval requires the submittal of all items listed in the Attached Items box. *Design calculations are required for all structure designs.</i>	

CERTIFICATE OF COMPLIANCE

CERTIFICATE OF COMPLIANCE

**TO: LADOTD Project Manager
Project Manager
LADOTD**

DATE: Month XX, Year XXXX

RE: QUALITY ASSURANCE REVIEW

PROJECT IDENTIFIER #: XXXXXXXXXXXXXXXXXXXX
PROJECT NAME: XXXXXXXXXXXXXXXXXXXX
COUNTY: XXXXXXXXXXXXXXXXXXXX
SUBMITTED DOCUMENT(S): XXXXXXXXXXXXXXXXXXXX
CONSULTANT: SDR Engineering Consultants, Inc.
SUBCONSULTANTS : XXXXXXXXXXXXXXXXXXXX

This is to certify that I have monitored the Quality Control (QC) process and I have completed and documented the required Quality Assurance (QA) review during production of the above noted submittal. Draft writings, associated production and review check prints, and quality control documents for the referenced elements (including those of the sub-consultants) have been evaluated, initialed, and are available in our project files for review upon request.

This certificate is issued to document our reviews and to confirm that "due or ordinary care" processes were followed in producing the submittal documents. In our professional opinions, these documents meet the standards and requirements and are ready for your review. These requirements include those stipulated in the project Scope of Services performance criteria and the LADOTD policies, standards and preferences.

SIGNED: _____ **Date:** _____
Name, P.E.
SDR Project Manager

SIGNED: _____ **Date:** _____
Name, P.E.
Quality Assurance Manager

APPENDIX I

QC/QA FORMS FROM LADOTD BDEM

(To be included in submittals)

(LADOTD BDEM Chapter 3 - Appendix A)**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 Railing**
 - The design criteria, types, and test levels for bridge barrier railings shall be listed in this section. Standard Plans should be listed if they are utilized.
 - **Guardrail**
 - The design criteria, types, and test levels for guardrails shall be listed in this section. **Standard Plans** should be listed if they are utilized.
 - **Approach Slab**
 - Design criteria for approach slab shall be included in this section. **Standard Plans** should be listed if they are utilized.
 - **Deck and Deck Drainage**
 - All design criteria for deck and deck drainage design shall be included in this section. **Standard Plans** should be listed if they are utilized.
 - **Bearing**
 - All bearing types and design criteria for each bearing type shall be included in this section. **Standard Plans** should be listed if they are utilized.
 - **Joint**
 - All joint types and design criteria for each type shall be included in this section. **Standard Plans** should be listed if they are utilized.
 - **Superstructure**
 - All superstructure types and design criteria for each type shall be included in this section. **Standard Plans** should be listed if they are utilized.
 - **Substructure**
 - All substructure types and design criteria for each type shall be included in this section. **Standard Plans** should be listed if they are utilized.
 - **Piles and Drilled Shafts**
 - All pile types, sizes, and structural design criteria shall be included in this section. **Standard Plans** should be listed if they are utilized.
 - **Geotechnical Design**
 - All geotechnical design criteria shall be included in this section and the information shall be provided by the Geotechnical Engineer. **Standard Plans** should be listed if they are utilized.
 - **Mechanical Design**
 - All mechanical design criteria shall be included in this section if applicable. **Standard Plans** should be listed if they are utilized.
 - **Electrical/Lighting Design**
 - All electrical design criteria shall be included in this section if applicable. **Standard Plans** should be listed if they are utilized.
 - **As-Designed Bridge Rating Criteria**
 - All as-designed bridge rating criteria shall be included in this section.
 - **Software**
 - All software used for design and check shall be included in this section.

(LADOTD BDEM Chapter 3 - Appendix B)**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 (Including the As-Designed Rating Report)**
- **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.

(LADOTD BDEM Chapter 3 - Appendix D)
QC/QA Certification

Project No.:

Project Name:

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

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

(LADOTD BDEM Chapter 3 Appendix I)**Consultant Submittal QC/QA Certification**

Project No.:

Project Name:

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

Submittal Description

Supervisor or Team Leader Name

Signature

Date