DOTD FORM: 24-102

(Revised March 1, 2022)

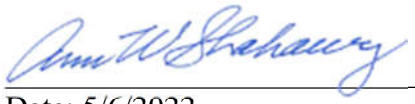
PROPOSAL TO PROVIDE CONSULTANT SERVICES

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

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

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

1. Contract title as shown in the advertisement	IDIQ CONTRACTS FOR BRIDGE PRESERVATION
2. Contract number(s) as shown in the advertisement	4400023921, 4400023922, 4400023923, 4400024185, 4400024186, 4400024187, 4400024188, AND 4400024189
3. State Project Number(s), if shown in the advertisement	N/A
4. Prime consultant name (as registered with the Louisiana Secretary of State where such registration is required by law)	**SDR Engineering Consultants, 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 (shall be the same person as #9):  Date: 5/6/2022
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.	DBE GOAL 3% **Vectura Consulting Services, LLC 2%** **Gulf South Research Corporation 2%**

12. Past Performance Evaluation Discipline Table:

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

Evaluation Disciplines	% of Overall Contract	SDR (Prime)	TRS	F&T	M&N	KTA	SCI	VEC (DBE)	ARD	GSR (DBE)
Bridge	75%	72%	10%	6%	10%	2%	N/A	N/A	N/A	N/A
Road	15%	N/A	N/A	N/A	N/A	N/A	100%	N/A	N/A	N/A
Traffic	2%	N/A	N/A	N/A	N/A	N/A	N/A	100%	N/A	N/A
Survey	3%	N/A	N/A	100%	N/A	N/A	N/A	N/A	N/A	N/A
Geotech	3%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100%	N/A
Environmental	2%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	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%**	**54.0%**	**7.5%**	**7.5%**	**7.5%**	**1.5%**	**15.0%**	**2.0%**	**3.0%**	**2.0%**

Consultants

ARD: Ardaman & Associates, Inc.

F&T: Fort & Tablada, Inc.

GSR: Gulf South Research Corporation

KTA: KTA-Tator, Inc.

M&N: Moffatt & Nichol, Inc.

SCI: Stanley Consultants, Inc.

SDR: SDR Engineering Consultants, Inc.

TRS: TranSystems Corporation

VEC: VECTURA Consulting Services, LLC

13. Firm Size:

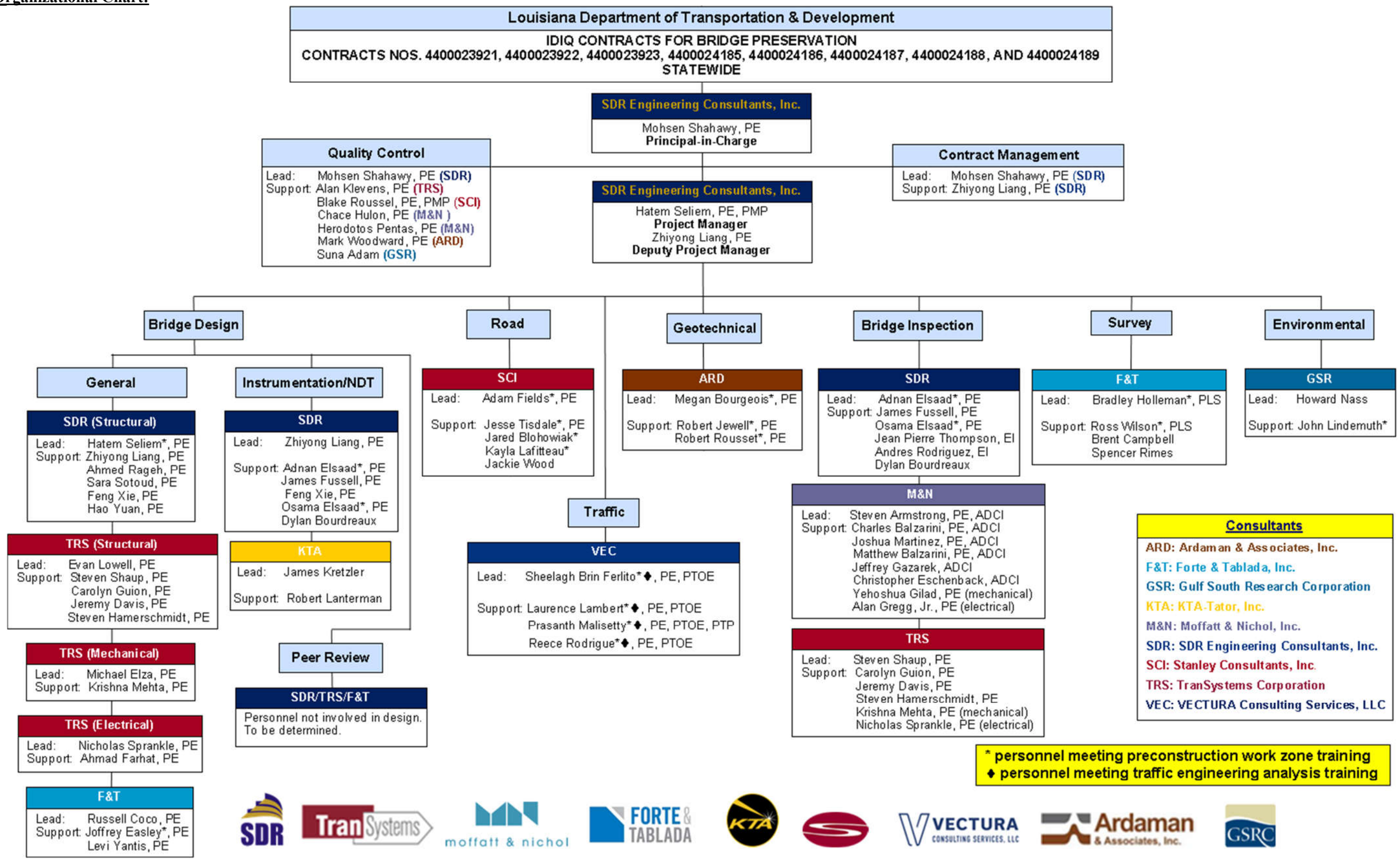
For all firms that are part of this team, indicate the approximate number of personnel to be committed to this contract, by DOTD Job Classification and the total number of personnel within the firm that could provide support, if needed. If a specialized job classification is required and not included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

Firm name	DOTD Job Classification	Number of personnel committed to this contract	Total number of personnel available in this DOTD Job Classification (if needed)
SDR Engineering Consultants, Inc.	Principal	1	2
	Supervisor Engineer	2	3
	Engineer	4	4
	Engineer Intern	6	10
	Inspector-Bridge	6	8
	CADD Drafter	1	2
	Computer Analyst	1	2
	Administrative	1	2
TranSystems Corporation	Supervisor- Other	1	50
	Supervisor- Engineer	4	15
	Engineer	3	11
	Engineer Intern	3	58
	Inspector-Bridge	7	64
	CADD Technician	1	7
	CADD Drafter	1	7
	Administrative	2	9
M&N: Moffatt & Nichol, Inc.	Accountant	1	10
	CADD Technician	1	75
	Engineer (LA PE)	4	25
	Inspector – Bridge	12	50
	Supervisor – Engineer	2	8
	Technician	5	12

Fort & Tablada, Inc.	Administrative		3
	CADD Technician	4	8
	Clerical		4
	Engineer	2	4
	Inspector		3
	Instrument Man	1	1
	Party Chief	2	6
	Engineer Intern		9
	Principal	1	3
	Rodman	1	11
	Senior Technician	2	3
	Supervisor Engineer	1	4
	Supervisor Other		2
	Surveyor	1	5
KTA: KTA-Tator, Inc.	Supervisor-Other	2	12
Stanley Consultants, Inc.	Principal	1	1
	Engineer Supervisor	2	4
	Engineer	1	1
	Engineer Intern	2	2
	Senior Technician	1	1
VECTURA Consulting Services, LLC.	Supervisor – Eng.	2	2
	Engineer	3	5

Ardaman & Associates, Inc.	Administrative	1	3
	Clerical	1	1
	Engineer	1	2
	Engineer Intern	2	3
	Principal	2	2
	Senior Technician	3	6
	Supervisor Engineer	3	3
	Supervisor-Other	2	2
	Technician	6	13
Gulf South Research Corporation	Supervisor-Other	4	8
	Supervisor-Arch	2	3
	Biologist/Wetlands	4	8
	Archaeologist	4	8
	Archaeologist-Tech	4	4
	GIS Analyst	2	2
	Clerical	2	2

14. Organizational Chart:



15. Minimum Personnel Requirements:

Use the table below to identify both prime consultant and sub-consultant staff designated to work on this contract meeting the Minimum Personnel Requirements (MPRs) specified in the advertisement. Ensure the résumé reflects the required experience stated in the MPR.

MPR No.	Personnel being used to meet the MPR	Firm employed by		Type of license / certification & number	State of license	License / certification expiration date
1	Mohsen Shahawy, PhD, PE	**SDR Engineering Consultants, Inc.**	SDR	PE.31465	LA	03/31/2023
2						
3	Zhiyong Liang, PhD, PE			PE.34873	LA	03/21/2022
	Hatem Seliem, PhD, PE, PMP			PE.39759	LA	09/30/2023
4	Sara Sotoud, PhD, PE			PE.46133	LA	03/31/2022
	James Fussell, ME, PE			PE.43706	LA	03/31/2022
	Feng Xie, MS, PE			PE.43987	LA	03/31/2022
5	Michael Elza, PE	**TranSystems Corporation**	TranSystems	PE.39135	LA	03/31/2023
	Krishna Mehta, PE			PE.45352	LA	09/30/2023
6	Nicholas Sprankle, PE			PE.45388	LA	09/30/2023
7	Evan Lowell, PE			PE.35346	LA	09/30/2022
	Steven Shaup, PE			PE.45298	LA	09/30/2023
8	Adam Fields, PE	**Stanley Consultants, Inc.**		PE.35614	LA	09/30/2022
9	Megan Bourgeois, PE	**Ardaman & Associates, Inc.**	Ardaman & Associates, Inc.	PE.36725	LA	03/31/2024

16. Staff Experience:

Firm employed by: SDR Engineering Consultants, Inc.					
Name	**Mohsen Shahawy, PhD, PE**		Years of relevant experience with this employer	25	
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 / 03-31-2023		
Year registered	2004	Discipline	Civil Engineer		
Contract role(s) / brief description of responsibilities			Principal in charge, design, management, QC/QA		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, *i.e.*, "Bridge Inspection", "condition assessment", "steel and concrete rehabilitation, "Non-destructive Testing", "Project Management".
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 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.	
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 maintain traffic on the interstate

	while removing the old structure and constructing the new bridge. 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.

Firm employed by: SDR Engineering Consultants, Inc.					
Name	**Zhiyong Liang, PhD, PE**		Years of relevant experience with this employer	13	
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 / 3-31-2022 FHWA-NHI Bridge Inspection Training		
Year registered	2009	Discipline	Civil Engineering-Structures		
Contract role(s) / brief description of responsibilities			Project Manager, bridge inspection, bridge design, 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 time specified in the applicable MPR(s).
	Dr. Liang's experience focuses on bridge inspection, design, load rating, and conditions evaluation of steel and concrete bridges. He has been a Project Manager and Engineer of Records on many successfully competed bridge inspection, load rating, design, testing, and rehabilitation projects. With a diverse background in both Civil Engineering and Computer Science, he is an expert at operating different bridge inspection/testing equipment, performing data analysis, and developing software to assist in bridge analysis and data archiving. He has a very strong background in finite element modeling and data analysis, as well as hands-on experience at bridge sites. He served as the Lead Engineer in the development of the DOTD Bridge Design and Evaluation Manual (BDEM). He has also completed the FHWA-NHI Bridge Inspection Training and qualified as a bridge inspection manager/leader.
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.
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.
06/86–10/00	**Complex Bridge Design/Rating, Statewide, FL** Design and construction of complex bridges. Sample complex bridge 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

Firm employed by: SDR Engineering Consultants, Inc.					
Name	**Hatem Seliem, PhD, PE, PMP**		Years of relevant experience with this employer	8	
Title	Senior Structural Engineer		Years of relevant experience with other employer(s)	10	
Degree(s) / Years / Specialization			PhD / 2007 / Civil Engineering (Structural) MS / 2002 / Civil Engineering (Structural) BS / 2000/ Civil Engineering		
Active registration number / state / expiration date			PE.39759 / Louisiana / 09-30-2023		
Year registered	2014	Discipline	Civil Engineering-Structures		
Contract role(s) / brief description of responsibilities			Deputy Project Manager, structural design, rehabilitation		

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 time specified in the applicable MPR(s).
Dr. Seliem is a certified Project Management Professional (PMP)® and served as project manager on large-scale projects to manage and coordinate subconsultants as well as in-house design teams, including roadway/bridge coordination, as well as other disciplines. Further, he is a senior structural engineer with over 15 years of experience of design and analysis of concrete structures and bridges.	
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. SDR provides all necessary engineering design services required to construct the two separate ramp structures and the relocation of Frontage Road. Dr. Seliem' s responsibilities are as follows: • Project Manager coordinating between SDR, subconsultants, and DOTD Project Manager. • Bridge Engineer of Record overseeing the structural design of the superstructure and substructure, deck drainage design, and construction cost estimate.
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. Dr. Seliem' s responsibilities were as follows: • 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.
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) 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 diagnostic load testing coupled with detailed 3-D Finite Element Analysis with the aim of removing current load posting. Dr. Seliem's responsibilities were as follows: • Review of 3-D FE model and analysis results. • Review of load testing results and its correlation to FE model as well as review of load rating models. • Develop final report and convey results to DOTD.
11/15–04/18	**H.011484: US 80 Texas Street Bridge Rehabilitation, Shreveport, LA** The bridge, built in 1934, is a historic bridge which carries US 80 over the Red River at Shreveport, LA. The bridge consists of 45 spans with a total length of 2,895'. The approach spans consist of reinforced concrete T-beam girders, steel girders, and steel deck trusses. The main span consists of a three-span steel truss with a total length of 884'. Scope of work included in-depth inspection of the entire bridge structure; evaluation of the structural strength; load rating analysis of the deficient structure; and design of rehabilitation and construction plans production. Dr. Seliem' s roles were as follows: • Structural analysis of the main span trusses using refined analysis. • Inspection team member conducting hands-on element inspection and ultrasonic testing of the steel pins. • QC/QA review activities: load rating analysis; evaluation report; design of truss members rehabilitation. • Construction support: site visits, review of shop drawings, and responding to RFIs.
08/13-08/15	**H.010016:US-11 Lake Pontchartrain Bridge Rehabilitation, New Orleans, LA** This project focused on a historic bridge (built in 1928) carrying US-11 over Lake Pontchartrain. The bridge consists of 700 reinforced concrete spans and two (2) steel movable spans for a total length of 24,922'. The scope of work was to provide inspection, evaluation, and design services required for rehabilitation of all structural components of the concrete superstructure and substructure. Dr. Seliem's roles were as follows: • Participating in in-depth NBIS inspection of both the superstructure and substructure. • Performing finite element analysis and reviewing rehabilitation drawings.
01/13-04/15	**DOTD H.002281: LA 66 - Big Bayou Sara Bridge, West Feliciana Parish, LA** The historic bridge (built in 1949) carrying LA-66 over Big Bayou Sara consists of five 100' steel pony truss spans and five 40' steel I-beam approach spans. Services provided included inspection and evaluation of the existing structure and design of rehabilitation system for the superstructure and substructure. The rehabilitation was composed of design of the concrete deck, girders, stringers, modifications to existing floor beams, and bearings. Responsibilities in this project included: • Inspection of the superstructure and substructure elements. • Reviewing the final plans and developing the write-up for the Specifications of Non-Standard items.

Firm employed by: SDR Engineering Consultants, 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 / 9-30-2021		
Year registered	2009	Discipline	Civil Engineering-Structures		
Contract role(s) / brief description of responsibilities			Senior Bridge Engineer and Bridge Inspection Leader		

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 time specified in the applicable MPR(s).
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.	
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. Mr. Elsaad's responsibilities are as follows:

	• 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 Mr. Elsaad's responsibilities 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 snooper 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. Mr. Elsaad responsibilities include 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
07/2017-03/20	**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 Consultants, Inc.					
Name	**James Fussell, ME, PE**		Years of relevant experience with this employer	7	
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 / 03-31-2022		
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.e.*, "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 Mr. Fussell's responsibilities are as follows: • 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.
05/16-04/18	**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. Mr. Fussell's responsibilities were as follows: • 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. Mr. Fussell's project tasks involved the following: • 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 Consultants, Inc.					
Name	**Sara Sotoud, PhD, PE**		Years of relevant experience with this employer	5	
Title	Bridge Engineer		Years of relevant experience with other employer(s)	5	
Degree(s) / Years / Specialization			PhD / 2016 / Civil Engineering MS / 2008 / Structural Engineering BS /2004 / Civil Engineering		
Active registration number / state / expiration date			PE.46133 / Louisiana / 3-31-2022		
Year registered	2021	Discipline	Civil Engineering-Structures		
Contract role(s) / brief description of responsibilities			Bridge design, rehabilitation, evaluation, load rating		

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 time specified in the applicable MPR(s).
Dr. Sotoud is a bridge engineer in structural engineering. Her current work is primarily in bridge design, load rating, detailing, and quantity/cost estimate preparation. She has encompassed concrete, prestressed concrete, steel, and timber bridges, etc. in her professional career. She served as an engineer in the development of the DOTD Bridge Design and Evaluation Manual.	
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 Dr. Sotoud's responsibilities are as follows: • Task manager for the substructure design. • Analysis and design of pier caps, pier columns, walls, and drilled shafts. • Coordinating with the substructure team to assure the design is reflected on plans correctly. • Developing the comb book.
07/19-06/21	**H.012485.5: Load Rating Of 617 Off-System Bridges, Statewide, LA** This project consisted of the analysis and load rating of 617 different types of off-system bridges statewide. Bridge structures include all types of timber spans, steel spans, and concrete spans. Dr. Sotoud's responsibilities and tasks were: • Reviewed documents and plans of the bridges. • Prepared load rating reports for the bridges. • Quality control of the load rating work done by other engineers.

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. Dr. Sotoud's responsibilities included: • Load rating of approach spans with reinforced concrete tee beams, deck truss, and main truss spans with floor-beams and stringer systems and gusset plates. • Preparing the inspection report and rehabilitation recommendations. • Rehabilitation design of the approach deck truss spans, and main truss spans. • Developing construction plans.
02/19-08/19	**H.009859.5: Load Rating of 27 Complex Bridges, Statewide, LA** This project consisted of the analysis and load rating of 27 complex bridges including continuous steel spans, prestressed concrete spans, moveable spans, etc. located in Louisiana. Dr. Sotoud's responsibilities and tasks were: • Reviewed documents and plans of the bridges. • Prepared load rating reports for the bridges. • Quality control of the load rating work done by other engineers.
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. Dr. Sotoud's responsibilities were as follows: • Load rating using AASHTOWARE Bridge Rating for the approach spans, deck truss spans, main truss spans, truss members, and gusset plates. • Considering inspection and load rating findings, investigation of repair procedures such as heat straightening and paint containment systems for truss configurations. • Developed extensive drawings using MicroStation for repair procedures of the superstructure and substructure, along with re-producing shop drawings of members to be repaired.

Firm employed by: SDR Engineering Consultants, Inc.					
Name	**Ahmed Rageh, PhD, PE**		Years of relevant experience with this employer	2	
Title	Bridge Engineer and Bridge Inspector		Years of relevant experience with other employer(s)	9	
Degree(s) / Years / Specialization			PhD / 2020 / Civil Engineering – Structures MS / 2018 / Civil Engineering – Structures MS / 2012 / Civil Engineering – Structures BS /2006 / Civil Engineering – Structures FHWA-NHI-13055 Safety Inspection of In-Service Bridges		
Active registration number / state / expiration date			PE.93229 / Florida / 2-28-2023		
Year registered	2022	Discipline	Civil Engineering – Structures		
Contract role(s) / brief description of responsibilities			Bridge design, load rating, & Inspection Team Leader		

Dr. Rageh is a bridge engineer with 11 years of experience in bridge design and evaluation. He has extensive experience and specialization in bridge design with detailed knowledge of complex steel and concrete bridge, as well as bridge load rating, inspection, and full-scale testing.

03/21 – Present	**H.011309: MacArthur Interchange Completion, Phase II, Jefferson Parish, LA** Scope of work is to provide 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. All necessary engineering design services (Stage 3) are included to construct the two separate ramp structures and the relocation of Frontage Road. Dr. Rageh's responsibilities include: • Analysis, design and detailing of overhead sign cantilever trusses. • Perform QC/QA on the reinforced concrete deck design calculations and detailed plans.
03/21 – Present	**H.009859.5: Load Rating of 176 On-System bridges, Statewide LA** This project consists of the load rating of 176 bridges located in Louisiana. Most of them are culverts. The culverts were rated using the improved rating method developed by SDR. Dr. Rageh's responsibilities include: • In-depth field inspection in accordance with NIBS standards. • Performing load rating of reinforced concrete box culverts. • Performing QC/QA on box culverts rated by other engineers.
08/21 – 01/22	**Bridge No. 879092: Pedestrian Truss Bridge Over Florida Turnpike Access Road, Hard Rock Stadium, Miami Gardens, Florida** The bridge is a single span steel prefabricated truss-type bridge with a total as-built length of 206'-7". SDR's responsibility was to perform independent peer review of the bridge components and mounted sign structures. Dr. Rageh's responsibilities included:

	• Performing 3D finite element and buckling analyses of the truss bridge. • Perform design verification of the truss bridge superstructure elements and connections.
07/14 – 07/15	**Egyptian Railway System Riveted Steel Bridges Assessment and Testing, Egypt, Countrywide** The project involved full-scale testing and fatigue assessment of the major riveted steel truss bridges crossing the River Nile in Egypt. Bridges have total lengths between 296' and 1,610' with spans up to 295' and height up to 30. Dr. Rageh's responsibilities included: • Performing in-depth field inspection of bridge elements and connections. • Managing the full-scale live load non-destructive field testing. • Performing 3D finite element analyses for the tested bridges. • Performing fatigue assessment for critical bridge elements and connections.
02/08 – 11/08	**El Maryoutya Roadway Steel Bridges, Giza, Egypt** The bridge consists of cast-in-place concrete box and composite steel twin box girders with span length of 175'. Dr. Rageh's responsibilities included: • Performing 3D finite element analyses for the steel twin box girders. • Designing the steel elements and connections of box girders. • Developing detailed plans for the bridge superstructure including connections. • In-depth inspection of fabricated girders prior to transportation and construction support.
05/08 – 04/09	**Skyway TB1 Pedestrian Station Bridge, Cairo International Airport, Cairo, Egypt** The bridge is a single span steel prefabricated truss-type bridge with a span length of 145', designed to carry pedestrian on the moving walkway within the new airport expansion. Dr. Rageh's responsibilities included: • Performing 3D finite element analysis of the truss bridge. • Designing the steel elements and connections of truss bridge. • Developing detailed plans for the bridge superstructure including connections.
07/08 – 12/08	**El Gamalya Roadway Bridge, Dakahlia, Egypt** The bridge consists of multi-steel plate girder of 130' span with a composite cast-in-place concrete deck. Dr. Rageh's responsibilities included: • Performing analysis of the steel girders. • Designing the steel elements and connections of steel girders. • Developing detailed plans for the bridge superstructure including connections. • Reviewing the shop drawings submitted by the contractor. • In-depth inspection of fabricated girders prior to transportation and construction support.

Firm employed by: SDR Engineering Consultants, Inc.					
Name	**Osama Elsaad, ME, PE**		Years of relevant experience with this employer	5	
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 FHWA-NHI-13055 Safety Inspection of In-Service Bridges		
Active registration number / state / expiration date			PE.45668 / Louisiana / 09-30-2021		
Year registered	2021	Discipline	Civil Engineering-Structures		
Contract role(s) / brief description of responsibilities			Inspection, load rating, instrumentation, 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 time specified in the applicable MPR(s).
Osama Elsaad focuses on load rating, bridge load testing, and evaluation of concrete bridges. He is involved in load rating analysis of concrete and steel bridges and assists in developing and reviewing reports. He has led and managed field bridge load testing and assisted in field inspection teams as well as instrumenting bridges.	
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 consists 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 Osama Elsaad's responsibilities are as follows: • Design concrete footings, drilled shafts, continuous flight auger piles, and curtain walls. • Plan development. • QC/QA review of bridge plans. • Construction cost estimate.
07/21 – Present	**H.014288: LA 82: Mermentau MB Rehab, Cameron Parish, LA** The scope of work is to perform an in-depth inspection to evaluate the bridge and develop rehabilitation plans for all deficient steel members of the truss swing span, spalling of concrete approach slabs, and substructure. • Osama Elsaad's role was to perform an in-depth inspection of the entire superstructure and substructure to determine member locations to be repaired.
08/21 – Present	**H.009859: LA0001 Over Plaquemine Bridge, Iberville Parish, LA**

	The scope of work was to perform an in-depth inspection to evaluate the bridge and propose rehabilitation solutions for all deficient steel members of the truss span, approach spans, and substructures. • Osama Elsaad's role was to perform an in-depth inspection of the entire superstructure and substructure to determine member locations to be repaired.
10/19 – 10/20	**H.012028: I-20 Over Lakeshore Drive and KCS RR, Caddo Parish, LA** This project was to provide Stage 0 Design (Feasibility Study) for four (4) bridge structures of I-20 crossing over Lakeshore Drive and KCS Railroad in Shreveport, LA. Design of rehabilitation to improve the bridges' conditions, service life, and load rating was carried out by SDR. Different rehabilitation options were designed and detailed. Cost estimate and rehabilitation plans were provided to assist DOTD in selecting the best cost-benefit option. • Osama Elsaad assisted in the in-depth inspection of the bridge superstructure and substructure in conformance to AASHTO Manual for Bridge Evaluation, DOTD bridge inspection manual and the NBIS.
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, posted for a load lesser than the Legal Loads and/or Special Hauling Vehicles. The evaluation was carried out utilizing load rating analysis and non-destructive load testing coupled with detailed 3-D Finite Element Analysis with the aim of removing current load posting. Osama Elsaad's responsibilities were as follows: • Develop finite element bridge models. • Develop instrumentation and load configuration plans. • Instrument and field test deficient members. • Update finite element model and AASHTOware BrR models with adjustment factors. • Develop final report with field test results and update load rating report based on load test.
03/19-08/19	**H.009859.5: Load Rating of 27 Complex Bridges, Statewide, LA** The scope of work was to analyze and load rate 27 existing off-system bridge structures. The load rating was performed using AASHTOWare Bridge Rating Software following AASHTO Manual for Bridge Evaluation. The structure types consisted of swing bridges, pontoon bridges, and bascule bridges. Osama Elsaad's responsibilities were as follows: • Load rating analysis of complex bridges. • Develop and review load rating reports.

Firm employed by: SDR Engineering Consultants, Inc.					
Name	**Feng Xie, MS, PE**		Years of relevant experience with this employer	7	
Title	Bridge Engineer		Years of relevant experience with other employer(s)	1	
Degree(s) / Years / Specialization			MS / 2014 / Civil Engineering-Structures BS / 2012 / Civil Engineering-Structures FHWA-NHI-130056 Safety Inspection of In-Service Bridges for Professional Engineers		
Active registration number / state / expiration date			PE.43987 / Louisiana / 3-31-2022		
Year registered	2019	Discipline	Civil Engineering-Structures		
Contract role(s) / brief description of responsibilities			Analysis, load rating Lead, instrumentation, 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 time specified in the applicable MPR(s).
Mr. Xie is a seasoned bridge engineer. His current work is primarily in bridge inspection, bridge design, rehabilitation and detailing, non-destructive testing, load testing, load rating, and quantity/cost estimate preparation. He has encompassed concrete, prestressed concrete, steel, and timber bridges, etc. in his professional career.	
05/21 – Present	**H.014288.5-2: LA 82 Mermentau River MB (G Chenier) Bridge Rehabilitation, Cameron Parish, LA** This 1,049' movable bridge was built in 1959 and has been identified as a Preservation Priority Bridge. The main span of this bridge is a 204' swing steel low truss span. Its approaches are comprised of 26 concrete slab spans of 20' span length and 8 steel I-beam spans of 40' span length. Feng Xie's responsibilities include: • In-depth field inspection and evaluation of structural members. • Structural analysis and design of structural member strengthening details. • Task manager for the development of rehabilitation plan.
04/21 - 08/21	**H.009859.5: Rehabilitation of LA 3094 Bridge, Shreveport, LA** The LA 3094 (Hearne Ave) Bridge over Kansas City Southern RR is located in Bossier City and was built in 1977. The bridge is in bad condition and needs to be repaired. Feng Xie's responsibilities and tasks were: • Development of instrumentation plan and load testing schedule. • Performed in-depth inspection of the structural members and identified structural deficiencies. • Load testing with dump trucks, processing test data, preparation of the inspection report.
09/20 - 02/21	**H.009730.5: Bridge Deck Evaluation Using Ground Penetrating Radar, Statewide, LA** The goal of this project was to use non-destructive test methods to evaluate the overall deck condition of five selected bridges: a 23,440' continuous steel plate girder bridge; a 1,470' continuous concrete deck girder bridge;

	a 465' welded I-Beam with composite concrete deck bridge; a 3,012' steel rolled I-beam suspended bridge; a 12,079' concrete prestressed AASHTO type girder bridge. Feng Xie's responsibilities and tasks were: • Task manager for the work schedule and progress of the project. • Field inspection, GPR field measurement, GPR data processing, and GPR data interpretation. • Preparation of comprehensive deck evaluation reports.
09/19 - 01/20	**H.009859.5: Load Testing and Evaluation of Five Posted Bridges, Vermilion, Cameron parish LA** The five bridges were 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. Feng Xie's responsibilities and tasks were: • Development of instrumentation plan, load testing with dump trucks, and processing test data. • Review of documents and finite element analysis for the controlling spans.
02/19 - 08/19	**H.011487: LA 182 Berwick Bay Bridge Rehabilitation, Lafayette Parish, LA** This project consisted of the inspection and development of a rehabilitation plan of deficient structural components for the Long-Allen Bridge. Feng Xie's responsibilities and tasks were: • In-depth field investigations identifying deficient structural components. • Load rating of substructures, load testing, processing test data, and development of the rehabilitation plan.
06/16-07/17	**H.012302.6: Repair Of Us-61 Ramp "K" Bridge Over I-10, 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 development of a rehabilitation plan. Feng Xie's responsibilities and tasks carried out include: • In-depth field inspection. • Structural analysis and damage assessment. • Development of the repair plan. • Instrumentation, and monitoring 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 St. In-Depth Bridge Inspection and Rating, Shreveport, LA** This project consisted of the in-depth inspection, load rating, and rehabilitation of the US 80 Texas Street truss bridge located in Shreveport, Louisiana. Feng Xie's responsibilities and tasks were: • Performing in-depth field investigations following national bridge inspection standards (NBIS). • Reviewing the truss spans as well as approach spans' models while considering deterioration. • Preparation of inspection report and development of bridge rehabilitation plan.

Firm employed by: SDR Engineering Consultants, Inc.					
Name	**Hao Yuan, PhD, PE**		Years of relevant experience with this employer	3	
Title	Bridge Engineer		Years of relevant experience with other employer(s)	3	
Degree(s) / Years / Specialization			PhD / 2018 / Civil Engineering-Structures MS / 2012 / Civil Engineering-Structures BS / 2011 / Civil Engineering-Structures		
Active registration number / state / expiration date			PE.91749 / Florida / 2-28-2023		
Year registered	2021	Discipline	Civil Engineering-Structures		
Contract role(s) / brief description of responsibilities			Bridge design, analysis, load rating		

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 time specified in the applicable MPR(s).
Dr. Yuan current work is primarily in bridge analysis, design, load rating, load testing, and non-destructive testing. He has encompassed concrete, prestressed concrete, steel, and timber bridges in his professional career.	
04/22 – Present	**Load Testing and Evaluation of LA 3021 over Southern Railroad, New Orleans, LA** This concrete deck girder bridge with arched spans is found to have low shear capacity in an earlier load rating project. This project consists of load tests for this bridge. Load tests combined with detailed three-dimensional finite element analysis are to reveal if the bridge can carry higher loads. Hao Yuan's responsibilities include: • Analysis and load rating of bridges using beam-based model and solid finite element model. • Develop the load testing and evaluation report.
02/22 – Present	**H.009859 TO14: Load Rating of 36 Bridges, statewide, LA** The load ratings are performed for different types of bridges, in accordance with AASHTO and LADOTD codes. Hao Yuan's responsibilities include: • Modeling, analysis, and load rating of bridges using multiple software. • QCQA of other engineers' work and guidance for new engineers.
03/20 – Present	**H.011309.5: MacArthur Interchange Completion Phase II Final Plans, Jefferson Parish, LA** This project is to finish the detailed design and final plans of MacArthur Interchange Ramps 4M and 5M. Hao Yuan's responsibilities include: • Finite element modeling and analysis of span-pier-span assemblies with soil-structure interactions. • Stress ratio check for the pier columns and drilled shafts. • QCQA of the approximate analysis for the substructure. • Develop sections of the computation book.
01/22 – 02/22	**H.000665.5 TO2: Update LG Design Charts, statewide, LA**

	This project was to update the LG design charts in the LADOTD BDEM regarding the lower initial concrete strengths. Hao Yuan's responsibilities included: • Update Smart Bridge Suite models for LG-63 and LG-54 to explore the max allowable span lengths and corresponding strand patterns and overhangs.
01/21 – 10/21	**H.009859 TO14: Load Rating of 176 Bridges, statewide, LA** The load ratings were performed for different types of bridges, in accordance with AASHTO and LADOTD codes. Hao Yuan's responsibilities include: • Modeling, analysis, and load rating of bridges using multiple software. • QCQA of other engineers' work.
07/21 – 08/21	**Hard Rock Stadium Pedestrian Bridge – Design Review, Miami Gardens, FL** This project was design review for the Hard Rock Stadium Pedestrian Bridge by CONTECH. Hao Yuan's responsibilities included: • Finite element modeling and analysis of pile bent with soil-structure interactions. • Stress ratio check for the PPC piles. • QCQA of the 3D truss model and wind load calculation and implementation.
06/20 – 05/21	**H.009730.5 TO3: Evaluation & Load Testing of Selected Posted Bridges, statewide, LA** The project was to test several selected posted bridges to verify the current posting and check possibility of improvement. Hao Yuan's responsibilities included: • Inspection, measurement, instrumentation, and load testing data acquisition of the bridge 025050. • Processing test data, conducting finite element analysis, and preparing the load testing report for bridges.
11/20 - 12/20	**H.009730.5 TO5: Bridge Deck Evaluation Using Ground Penetrating Radar, statewide, LA** This project was to use non-destructive test methods to evaluate the overall deck condition of five selected bridges: a 23,440' continuous steel plate girder bridge; a 1,470' continuous concrete deck girder bridge; a 465' welded I-Beam with composite concrete deck bridge; a 3,012' steel rolled I-beam suspended bridge; a 12,079' concrete prestressed AASHTO type girder bridge. Hao Yuan's responsibilities and tasks were: • GPR data interpretation. • Review and revision of comprehensive deck evaluation reports.
12/19 – 05/21	**H.012485.5: Load Rating of 311 Off-system Bridges, statewide, LA** The load ratings were performed for different types of bridges, in accordance with AASHTO and LADOTD codes. Hao Yuan's responsibilities included: • Modeling, analysis, and load rating of bridges using multiple software. • QCQA of other engineers' work.

Firm employed by: SDR Engineering Consultants, Inc.					
Name	**Andres (Andy) Rodriguez, ME, EI**		Years of relevant experience with this employer	3	
Title	Engineer Intern II		Years of relevant experience with other employer(s)	-	
Degree(s) / Years / Specialization			ME / 2020 / Structural Engineering BS / 2018 / Civil Engineering FHWA-NHI-13055 Safety Inspection of In-Service Bridges		
Active registration number / state / expiration date			EI.0034329 / Louisiana / 3-31-2022		
Year registered	2019	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Pre-professional Staff Engineer, inspection, load rating		

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 time specified in the applicable MPR(s).
Mr. Rodriguez is a pre-professional engineer with 3 years of experience in bridge engineering and in-depth bridge inspection. His current work consists of load rating, bridge detailing and design of ancillary structures, quantity/cost estimate preparation, conducting Non-Destructive Testing, and evaluation of load testing data. He has successfully completed and obtained certification from the FHWA/NHI Safety Inspection of In-Service Bridges course.	
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 Mr. Rodriguez's responsibilities are as follows: • Plan production/detailing of the Inverted-T Pier Caps and Columns. • Comprehensive bridge quantities review. • Assist in the design of Cantilever Overhead Sign Trusses and supporting Corbel Brackets.
05/21 – Present	**H.009859.5: Load Rating & Rehabilitation of LA 3094 Bridge Over KCS RR, Caddo Parish, LA** The scope of work is to perform an in-depth inspection and evaluation of the steel superstructure deemed to be in critical condition and posted for a weight of 15-25 tons. The findings from the inspection were applied in the evaluation of the continuous superstructure consisting of utilizing load rating analysis and load testing coupled with detailed 3-D Finite Element Analysis. Based on the analysis of the load testing, SDR was tasked with providing detailed rehabilitation plans to maintain the structural integrity of the bridge for the remainder of its service life. Mr. Rodriguez's responsibilities were as follows:

	• Process and interpret load testing results. • Develop AASHTOWare model, incorporating section loss and conducted load rating analysis. • Develop Rehabilitation Plans and perform cost estimate/determine quantities. • Prepare final reports
09/19 – 06/21	**H.009859.5: Load Rating of 311 Bridges, Statewide, LA** The scope of work was to analyze and load rate 311 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, RC girder spans, pile bents, and hammer head piers. Mr. 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). • Develop and review load rating reports.
10/19 – 10/20	**H.012028: I-20 over Lakeshore Drive and KCS RR, Caddo Parish, LA** This project was to provide Stage 0 Design (Feasibility Study) for four (4) complex bridge structures of I-20 crossing over Lakeshore Drive and KCS Railroad in Shreveport, LA. Design of rehabilitation to improve the bridges conditions, service life, and load rating was carried out by SDR. Different rehabilitation options were designed and detailed. Cost estimate and rehabilitation plans were provided to assist DOTD in selecting the best cost-benefit option. Mr. Rodriguez's tasks were as follows: • Consolidate all pertinent inspection data in an organized fashion. • Determine quantities of the defects and perform a cost-estimate of the expected repairs. • Complete Stage-Zero Checklist documents. • Prepare final report of the Stage Zero Study.
11/19–10/20	**H.009859.5: Evaluation & Load Testing of Substructure of Nine Bridges, Statewide, LA** The scope of work was to evaluate nine (9) substructures to determine the actual settlement of the substructures through proof load testing. The evaluation was carried out utilizing load rating analysis and load testing coupled with detailed 3-D Finite Element Analysis. The settlement of every pile of the critical bent was measured using LVDT displacement devices. Mr. Rodriguez's responsibilities were as follows: • Develop substructure models using RC-Pier. • Coordinate and procure services relevant to the load test (Traffic Control, etc.). • Process and interpret load testing results. • Prepare final reports summarizing the findings from the load test(s) and determine the adequacy of the bridge's performance based on the field measurements.

Firm employed by: SDR Engineering Consultants, Inc.					
Name	**Jean Pierre G Thompson, EI**		Years of relevant experience with this employer	2	
Title	Bridge Engineer Intern / Inspector		Years of relevant experience with other employer(s)	3	
Degree(s) / Years / Specialization			BS / 2020 / Civil Engineering AAS / 2015 / Drafting and Design		
Active registration number / state / expiration date					
Year registered	2022	Discipline	FHWA-NHI-130055 Safety Inspection of In-Service Bridge		
Contract role(s) / brief description of responsibilities			Bridge inspection and load rating		

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 time specified in the applicable MPR(s).
Mr. Thompson is a bridge engineer Intern with experience primarily in bridge inspection, load test, design, load rating, detailing, and plan preparation. He has worked on various bridge types including concrete, prestressed concrete, timber, and steel.	
08/19 – Present	**H.011309: MacArthur Interchange Completion, Phase II, Jefferson Parish, LA** This project consisted of designing and producing construction plans for the superstructure and selected inverted T pier caps and columns for one on-ramp and one off-ramp of the U.S 90 Westbound elevated expressway. Mr. Thompson's responsibilities are as follows: • Analyzed various girder options based on existing conditions as well as proposed design • Designed trapezoidal and I-beam girders for both ramps and analyzed under LADV-11 design vehicular loading in order to obtain the appropriate prestressing strand patterns as well as shear reinforcement configuration. Design of these girders were performed based on the specified standards of the AASHTO LRFD code specifications • Developed detailed design drawings of plans, elevations, and appropriate sections for proposed girders, slabs, pier caps, and columns
05/20–Present	**H.014288.5-2: LA 82 Mermentau MB Rehab (G Chenier) (HBI), Cameron Parish, LA** The bridge is located along Louisiana State Highway 82 and crosses Mermentau River at Grand Chenier in Cameron Parish. The bridge was built in 1959. The bridge main span is a swing steel low truss (Pony Truss) with a span length of 204 ft. The approaches comprise 26 concrete slab spans of 20 ft. span length, and eight (8) steel I-beam spans of 40 ft. span length. The total bridge length is 1049 ft. and has a roadway width of 24 ft. The current weight limit posted to the bridge is 10-15 tons. The major tasks were to inspect, and load test the bridge, and develop the rehabilitation plans to strengthen the bridge so that the posting can be removed. Mr. Thompson's responsibilities are as follows:

	• In-depth inspection of the bridge superstructure • Prepare rehabilitation plans • Structural analysis to strengthen the deficient members including floorbeams and stringers
01/20 – 06/21	**H.009859.5: Load Rating of 311 Bridges, Statewide, LA** The scope of work was to analyze and load rate 311 existing off-system bridge structures. Bridge types consisted of Precast Prestressed Concrete, Reinforced Concrete Deck Girders, Reinforced Concrete Slab Spans, Precast Reinforced Concrete Slab Panel, Rolled Steel I Beam Spans, and Continuous and Simple Steel Plate Girder spans. The load rating was performed using AASHTOWare Bridge Rating Software for superstructure and using RC-Pier for substructures. Mr. Thompson's responsibilities were as follows: • Collecting required plans and inspection reports from LADOTD archives • Inputting and running analysis of the various spans using AASHTOWare • Load rating of substructures using RC Pier and Mathcad • Development of repair recommendations as necessary • Prepare the rating reports for final submittals.
09/20 - 02/21	**H.009730.5: Bridge Deck Evaluation Using Ground Penetrating Radar, Statewide, LA** The goal of this project was to use ground penetrating radar (GPR) system to evaluate the overall deck condition of five selected bridges with bridge lengths up to 4.4 miles. The ground-coupled GPR was used to identify detailed deteriorations on or within concrete decks. The GPR was mounted on a vehicle driving at highway speed therefore the bridge deck could be evaluated without closing the traffic. Mr. Thompson's responsibilities and tasks were: • Field inspection of bridge deck • Scan bridge deck with GPR • GPR data processing, and GPR data interpretation • Preparation of final deck evaluation reports
02/20–12/20	**H.009859.5: RC Box Culverts Testing and Rating, Statewide, LA** The scope of work was to inspect and load test twelve (12) culverts to avoid posting on those culverts. The evaluation was carried out utilizing in-depth inspection, load rating analysis, and load testing coupled with detailed 3-D Finite Element Analysis. The culverts were all concrete type but with different sizes, fill heights, and soil types. Mr. Thompson's responsibilities were as follows: • Field inspection and evaluation of the culverts • Load test using strain sensors and calibration truck • Data analysis and final reports

Firm employed by: SDR Engineering Consultants, Inc.					
Name	**Dylan Boudreaux**		Years of relevant experience with this employer	2	
Title	CAD/Engineering Technician		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization			AAS / 2019/ Drafting & Design Technology FHWA-NHI-130055: Safety Inspection of In-Service Bridges		
Active registration number / state / expiration date			N/A		
Year registered	N/A	Discipline	N/A		
Contract role(s) / brief description of responsibilities			Engineering Technician, inspection, instrumentation, & 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 time specified in the applicable MPR(s).
Dylan is a highly talented engineering technician with engineering knowledge and expertise in inspection and fieldwork.	
08/20 – 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 consists of providing all necessary engineering design services (Stage 3) required to construct the two separate ramp structures and the relocation of Frontage Road. SDR is the prime consultant and Mr. Boudreaux's responsibilities are as follows: • Produce technical drawings for transition piers, cap reinforcement, drainage design and deck design per engineer instruction. • Calculate quantities for drawings.
03/21 – present	**H.009859.5: Load Rating and Rehabilitation of LA 3094 Bridge Over Kansas City Southern RR, Shreveport, LA** The scope of the work is to provide evaluation, design, and rehabilitation plans to repair and/or strengthen the deficient members. SDR performed load test for the controlling span(s) using trucks with calibrated weight. The test spans shall be instrumented prior to placing the calibrated truck on the bridge. Test results combined with Finite Element results will be utilized to determine the rehabilitation and/or strengthening methods. Mr. Boudreaux's roles were as follows: • In-Depth inspection of main spans and approach spans. • Preparation of materials and equipment for non-destructive field testing. • Review plans for strain gauge locations with lead Field Engineer. • Installing and organizing gauges in field on structure for testing. • Verifying axle spacing on trucks used for test and obtaining a copy of truck weight certificate.

	• Positioning trucks during testing in proper positions to ensure accurate data collection.
04/21 – 06/21	**H.009730.5: LA1 over Plaquemine Bridge Testing, Iberville Parish, LA** The bridge main span is a Steel High Truss with a span length of 150'. The approach comprises of ten (10) steel I-beam spans of 30' span length. The scope of work was to perform load tests coupled with Finite Element Analysis for the deficient members with the aim of removing load posting and/or determining the required strengthening. Mr. Boudreaux's responsibilities were as follows: • In-depth inspection of the main span and approach spans. • Preparation of materials and equipment for non-destructive field testing. • Review plans for strain gauge locations with engineers. • Installing and organizing gauges in the field on structure for testing. • Verify axle spacing on trucks used for testing and obtaining a copy of the truck weight certificate. • Positioning trucks during testing in proper positions to ensure accurate data collection.
08/20 – 12/20	**H.009730: Deck Evaluation Using Ground Penetrating Radar (GPR)** The main purpose of this project was to use air launched GPR to evaluate the overall deck condition of selected bridges. The ground coupled GPR may be used in limited areas to verify its efficiency to identify detailed deteriorations on or within concrete decks. Mr. Boudreaux's responsibilities were as follows: • Set up GPR for testing; assembling and testing to ensure proper function. • Field evaluation on bridge decks using GPR.
07/20 – 09/20	**H.009859.5: Evaluation and Load Testing of Substructure of Nine Bridges, Statewide, LA** The scope of this project was to carry out load testing and develop Finite Element Analysis (FEA) for the controlling bent with the aim of evaluating the settlement of piles under legal loads. Mr. Boudreaux's responsibilities were as follows: • Preparation of materials & equipment for non-destructive field testing. • Review plans for LVDT and strain gauge locations with lead Field Engineer. • Installing and organizing gauges in field on structure for testing. • Verify axle spacing on trucks used for test and obtaining a copy of truck weight certificate. • Positioning trucks during testing to ensure accurate data collection.

Firm employed by: TranSystems Corporation					
Name	**Alan Klevens, PE**		Years of relevant experience with this employer	35	
Title	Supervisor-Other		Years of relevant experience with other employer(s)	3	
Degree(s) / Years / Specialization			MS / 1989 / Civil Engineering BS / 1984 / Civil Engineering		
Active registration number / state / expiration date			PE.47187 / Florida / 02-28-2023		
Year registered	1993	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities	Alan is an expert bridge and structures engineer with more than three decades of experience with all facets of bridge inspection and design. A veteran engineer, Alan has been a quality assurance manager on numerous bridge inspection, rating, rehabilitation, and on-call engineering projects, many of which involved a large number and variety of structures, including complex and difficult access structures. He is a principal of the firm and is responsible for the overall management of over 30 engineers, technicians and administrative staff on his projects. In addition to bridge design and inspection work, Alan's repertoire includes the development of computer programs for bridge analysis, rating, design and optimization; and the presentation of technical papers on this and movable bridge design and rehabilitation at professional conferences.				

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 time specified in the applicable MPR(s).
01/17 – 05/20	**Districtwide Local Government On/Off System Routine Bridge Inspection, FDOT District 4, FL** QA Engineer for the 2017-2018 and 2019-2020 inspection cycles providing comprehensive structural, mechanical, and electrical inspection services for the routine and fracture critical inspections of over 760 Fixed Bridges, two swing and 13 bascule bridges for the local government bridge inspection program. Reports contained recommended repairs and were submitted to the maintaining agencies to address the documented deficiencies.
05/14 – 03/15	**Master Plan for Citywide Bridges, City of Fort Lauderdale, FL** Project Principal/QA Engineer for the inspections and preparation of bridge inspection reports for 46 of the City's bridges, including 45 fixed span bridges and one swing bridge. Field inspection included a review of all visible bridge structural elements, above and below water level, and was led by Florida Certified Bridge Inspectors, following FDOT guidance regarding documentation of deficiencies.
12/07 – 12/09	**Local Government On/Off System In-Depth Bridge Inspection, FDOT District 6, FL** QA Engineer on the project. As a subconsultant to Marlin Engineering, Inc., TranSystems provided comprehensive structural, mechanical, and electrical inspection services to District 6 for the routine and fracture critical inspections of 11 swing and bascule bridges located throughout Miami-Dade and Monroe counties as part of the

	2007-2009 cycle of the local government bridge inspection program. The local government bridge inspection program is administered by the state and facilitates the inspection of bridges owned by counties, cities, and other local agencies. As part of the inspection program, reports are prepared using the state's Pontis software. Reports include cataloging of deficiencies, as well as recommendations for repairs.
09/01 – 12/09	**Bridge of Lions Rehabilitation, FDOT District 2, St. Augustine, FL** Project Manager for the rehabilitation/new design for the movable spans of the Bridge of Lions. This historic bridge carries SR A1A over the Matanzas River. The movable span consists of a double leaf, steel rolling lift bascule span providing 76 feet of horizontal clearance. ***The bridge is listed on the National Register of Historic Places.*** TranSystems' responsibilities included inspection, testing, and rehabilitation of the existing bascule piers as well as the structural, mechanical, and electrical design of new bascule leafs. TranSystems designed an innovative method to support the existing bascule piers and strengthen them for ship impact and to meet current scour design criteria. TranSystems completed the historic evaluation and recordation of the existing bridge and worked closely with the Department and the SHPO to manage the determination of "no adverse effect" on this important property.
05/08 – 10/13	**Historic Ortega River Bridge Rehabilitation, FDOT District 2, Jacksonville, FL** Senior Structural Engineer. This rehabilitation of the Ortega River Bascule Bridge consisted of the replacement of numerous components of the mechanical and electrical systems, including replacement of the control console, system and rail to provide more space in the existing control house; replacement of the existing drives; a new relay-based control system; upgrading the span drive and lock machinery; replacement of span support machinery components as needed to meet all AASHTO requirements and eliminate failure of pintles; replacement of the existing CCTV system; and replacement of the existing traffic warning gates and signals.

Firm employed by: TranSystems Corporation					
Name	**Steven Shaup, PE**		Years of relevant experience with this employer	29	
Title	Supervisor Structural Engineer		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization			MS / 1993 / Civil Engineering BS / 1992 / Civil Engineering		
Active registration number / state / expiration date			PE.45298 / Louisiana / 09-30-2023		
Year registered	2021	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities	Steve is experienced in the new design, rehabilitation, analysis and inspection of all types of movable bridges. He has served as a project manager, project engineer, structural engineer or senior inspector for numerous inspection, load rating, rehabilitation, new design, and miscellaneous services projects, many including complex and movable bridges. Steve is a co-author of the AASHTO "Guidelines for Historic Bridge Rehabilitation and Replacement" and has been involved in many statewide historic bridge surveys and management plans. He is an experienced technical specifications writer and is well-versed in various modes of project delivery.				

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "Bridge Inspection", "condition assessment", "steel and concrete rehabilitation, "Non-destructive Testing", "Project Management".
07/19 – Present	**Onslow Beach Bridge Replacement, NAVFAC Southeast, Camp Lejeune, NC** Movable Bridge Engineer for the replacement of the existing 66-year-old two-lane swing bridge over the Intracoastal Waterway between main base Camp Lejeune and Onslow beach. This bridge serves as the single permanent transportation link connecting offshore amphibious assault training to main base Camp Lejeune training areas. This bridge had reached the end of its useful life, and was damaged during Hurricane Florence. A design-build RFP was prepared for full bridge replacement without impacting operation of the existing bridge as part of the Navy's Task Force Florence recovery and resiliency efforts.
05/14 – 03/15	**Master Plan for Citywide Bridges, City of Fort Lauderdale, FL** Project Manager and Engineer of Record for the inspections and preparation of bridge inspection reports for 46 of the City's bridges, including 45 fixed span bridges and one swing bridge. Field inspection included a review of all visible bridge structural elements, above and below water level, and was led by Florida Certified Bridge Inspectors, following FDOT guidance regarding documentation of deficiencies. A report was prepared for each bridge inspected.
12/07 – 12/09	**Districtwide Local Government Bridge Inspection, FDOT District 6, FL** Project Manager for comprehensive structural, mechanical and electrical inspection services for the routine and fracture critical inspections of 11 swing and bascule bridges located throughout Miami-Dade and Monroe

	counties as part of the 2007-2009 cycle of the local government bridge inspection program. The program is administered by the state and facilitates the inspection of bridges owned by counties, cities and other local agencies. As part of the inspection program, reports are prepared using the state's Pontis software. Steve was responsible for all TranSystems activities, including signing and sealing the final inspection reports.
09/01 – 12/09	**Bridge of Lions Rehabilitation, FDOT District 2, St. Augustine, FL** Senior Structural Engineer for the design of the new movable span superstructure and existing piers rehabilitation/strengthening. Work also included design of a temporary movable span and piers to be used during construction at the permanent bridge. The TranSystems team was also responsible for the historic evaluation of the existing bridge, listed on the National Register of Historic Places, and worked closely with the department and SHPO to manage the effect on this property. Steve's responsibilities included design and back-checking of structural calculations for numerous bridge components, including the bascule span superstructure and impressed current cathodic protection system for the bascule piers, plans preparation and detailing, and preparation of HAER-level historic documentation.
05/08 – 10/13	**Historic Ortega River Bridge Rehabilitation, FDOT District 2, Jacksonville, FL** Project Manager for the rehabilitation of the Ortega River Bridge, including the replacement of numerous components of the mechanical and electrical systems, replacement of the control console and control system with a control rail to provide more space in the existing control house, replacement of the existing drives, a new relay-based control system, upgrading the span drive and span lock machinery and replacement of span support machinery components as needed to meet all AASHTO requirements and eliminate failure of pintles, replacement of the existing CCTV system, and replacement of the existing traffic warning gates and signals. The project also included load rating of 14 bridges of various sizes, types and complexities using the VIRTIS/BrR rating software. Steve was the engineer of record for all contract documents and load ratings.
01/09 – 12/09	**Guidelines for Historic Bridge Rehabilitation and Replacement Project 25-25 Task 19, NCHRP** Project Engineer. The report includes a literature search, findings of a survey on the current state of historic bridge rehabilitation or replacement decision making, and nationally applicable decision-making guidelines for historic bridges. The guidelines are intended to be used as the protocol for defining when rehabilitation is prudent and feasible based on engineering and environmental data and judgments.

Firm employed by: TranSystems Corporation					
Name	**Evan Lowell, PE**		Years of relevant experience with this employer	34	
Title	Supervisor Structural Engineer		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization			BS / 1985 / Civil Engineering		
Active registration number / state / expiration date			PE.35346 / Louisiana / 09-30-2022		
Year registered	2010	Discipline	Civil Engineering		

Contract role(s) / brief description of responsibilities	Evan has been the project manager for new bridge and highway corridor improvement design as well bridge, highway and rail system infrastructure projects throughout the eastern United States. He has managed the development of highway bridge design contract documents using traditional and accelerated bridge construction techniques for a variety of complex and/or urban bridges for both design-build and design-bid-build project delivery. He has performed these services for FDOT, MassDOT, MBTA, Massport, MaineDOT, RIDOT, ALDOT, and others.

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 time specified in the applicable MPR(s).
06/10 – 06/18	**City of Boston, Historic Northern Avenue Bridge Rehabilitation, Boston, MA** Project Manager for the in-depth inspection, load rating, and development of rehabilitation design alternates for the historic Northern Avenue Bridge for the City of Boston. This 102 year old, historic, pin connected, through truss features a 238' swing span with two 150' side spans, with four truss lines carrying 3 travel lanes over Fort Point Channel. This project included in-depth inspection, UT testing of truss pins, load rating and rehabilitation design so that this bridge can function as a multi-modal transportation link between the South Boston Seaport District and the Rose Kennedy Greenway.
01/91 – 12/96	**MassDOT, Historic Route 6 Swing Bridge Rehabilitation, New Bedford/Fairhaven, MA** Senior Structural Engineer for the in-depth inspection, evaluation and rehabilitation design of this historic 676' long swing bridge over Acushnet River, containing a 288' swing truss and five approach spans. Originally constructed in 1898, this rehabilitation project included final plans, specifications, and cost estimates.
02/92 – 01/95	**MassDOT, On-Call Movable Bridges, Statewide, MA** Project engineer for the in-depth inspection of structural, mechanical and electrical elements, as well as evaluation, repair design, development of construction procedures, construction cost estimating, onsite construction assistance and onsite emergency evaluation of operational problems of movable bridges. These services were provided on an on-call basis for bridges located throughout the state.
01/91 – 05/92	**MassDOT, Blynman Bridge Rehabilitation, Gloucester, MA**

	Project engineer for the in-depth inspection, rating and rehabilitation design of this Scherzer Rolling Lift, double leaf bascule bridge carrying MA Route 127 over the Blynman Canal. Rehabilitation of this 46 ft. span bridge included structural steel repairs, tread plate replacement, substructure repairs and fendering replacement. Additionally, Mr. Lowell served as resident engineer during the emergency replacement of the steel tread plates. This work, which required the bridge to be placed out of service for 8-hour time periods, was performed at night to minimize disruption to navigational and vehicular traffic.
01/94 – 01/98	**Transportation Research Board NCHRP Project 1043-Movable Bridge Inspection, Evaluation and Maintenance Manual Nationwide** Team member for the development of a Manual for the Inspection, Evaluation and Maintenance of Movable Bridges. The team reviewed current technology and recently completed, or ongoing, research to produce a state-of-the-art guide for the assessment and condition reporting of the structural, mechanical, hydraulic, and electrical systems, operation, and safety of in-service movable bridges.
08/12 – 03/13	**MassDOT, Oak Bluffs Bridge Replacement, Oak Bluffs, MA** Project manager for development of the independent construction cost estimate for the $38M replacement of the Oak Bluffs Bridge. The bridge carries Lagoon Pond Road over the tidal inlet to Lagoon Pond on the island of Martha's Vineyard, located approximately five miles off the coast of Cape Cod. The new bridge features a 50 foot long, single-span, single leaf bascule with multiple steel beam approach spans for a total bridge length of 350 feet. The bridge provides two travel lanes, shoulders and sidewalks for an overall width of 50 feet. Removal of an existing temporary bridge was also included in the project.
10/10 – 06/11	**MaineDOT, Sarah Mildred Long Bridge, Route 1 Bypass over the Piscataqua River, Kittery, ME** Project Manager for the development of final design cost estimates for both the rehabilitation ($100M) and replacement ($200M) alternates. The two-level bridge carries vehicles on the upper deck and rail traffic on the lower deck. The 2,489 feet long existing bridge consists of five through truss spans and 22 girder approach spans, featuring a 200 feet long vertical lift main span.

Firm employed by: TranSystems Corporation					
Name	Carolyn Guion, PE		Years of relevant experience with this employer	16	
Title	Structural Engineer		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization			MS / 2007 / Civil Engineering BS / 2006 / Civil Engineering SPRAT Level 2 Rope Access Technician		
Active registration number / state / expiration date			75189 / Ohio / 12-31-2023		
Year registered	2010	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Carolyn has experience in the design and rehabilitation of bridges. She also is experienced in the preparation of plans, specifications, ratings, and cost estimates for bridges. She has been a member of inspection teams performing inspections on steel pier caps, pre-stressed concrete beam bridges, cable stayed bridges, steel trusses, and fracture critical bridges.		

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 time specified in the applicable MPR(s).
07/08 – 02/10	**Hale Boggs Bridge, LADOTD, Luling, LA** Structural Engineer for the inspection of the cable stayed bridge over the Mississippi River. TranSystems provided bridge engineering services to rehabilitate and perform a fatigue life evaluation of problematic cracking of the cable-stayed spans. The work included design of retrofit repairs to the bridge and development of a fatigue evaluation report. This assignment was as a direct result of our bridge inspection work on the main cable-stayed bridge structure and tower supports, evaluation, and report for LADOTD. Our work included the main span superstructure bridge deck that consists of twin trapezoidal box girders supported by cables.
2011 – 2012	**CUY-6-1456 Detroit-Superior Bridge, Ohio DOT District 12 Cleveland, OH** Structural Engineer for the 2011 and 2012 inspection, utilizing rope access techniques. Carolyn was also a team member for the 2012 load rating. The Detroit-Superior Bridge, also known as the Veteran's Memorial Bridge, carries four lanes of US Route 6 approximately 2,880 feet over numerous local streets including the Center Street Swing Bridge, surface parking lots, RTA railroad tracks, and the Cuyahoga River. The double-deck bridge consists of several structure types: approach cellular units and tunnel sections, reinforced concrete arch approach spans, and a truss, three-hinged steel through-arch main span. The team completed load rating of the steel and reinforced concrete superstructure components, including as-built and as-inspected analysis of the gusset plates for the primary truss members based on FHWA draft guidelines using Load and Resistance Factor Rating (LRFR)

	methods. Following the completion of this load rating, rehabilitation plans are being developed in order to address deficiencies noted on the bridge during previous inspections of the structure.
05/15 – Present	**Metro-North Railroad Bridge Inspections, Connecticut DOT, Newington, CT** Structural Engineer on a project for which TranSystems performed the inspection of rail carrying bridges and high transmission towers on Metro-North Railroad's New Haven Line, including all branches. Approximately 200 bridges are being inspected each year of this 4-year assignment, along with 18 transmission towers, 10 movable bridges and 17 underwater inspections. Carolyn also served as structural engineer for the emergency damage inspection for the Devon Railroad Bridge, as part of this contract.
11/14 – 11/17	**Two Truss Bridges Rehabilitation – at E. 92nd St. and Buckeye Rd., GCRTA, Cleveland, OH** Structural Engineer for the inspection of the existing bridge decks of two truss bridges on the Blue/Green Line. TranSystems prepared a description of the actual repairs to be made, supported by justification, plans, specifications, and cost estimates. In addition to the trackwork at the bridges, TranSystems also provided trackwork design services and bid documents for the replacement of the track structure at the Buckeye Woodhill Station. A pedestrian at-grade crossing was replaced and the existing wood tie track structure was upgraded to concrete ties in advance of reconstruction of the station.
05/10 – 6/11	**KCT Bridge Management Program, Kansas City Terminal Railway Company, Kansas City, MO** Structural Engineer for the development of a system-wide Bridge Management Program for the KCT Railway, including conducting bridge inspections for all the bridge structures on KCT property. The purpose of the program was to identify any necessary repairs or renovations that were needed for inclusion in the KCT 2011 Capital budget for repairs.
01/11 – 01/16	**Fracture Critical Inspections & Rehabilitation, Ohio DOT District 8, Southwestern OH** Structural Engineer for the confined space inspection and inspection reports of fracture critical steel pier caps. NBIS FCM in-depth inspection, structural evaluation and rehabilitation of 17 major structures in Hamilton County. Services included the inspection and evaluation of steel box pier caps, analysis of fracture critical members and fatigue sensitive details and field testing for crack identification (dye penetrant, magnetic particle).

Firm employed by: TranSystems Corporation					
Name	Jeremy Davis, PE		Years of relevant experience with this employer	15	
Title	Structural Engineer		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization			BS / 2009 / Civil Engineering SPRAT Level 1 Rope Access Technician		
Active registration number / state / expiration date			80494 / Florida / 02-28-2023		
Year registered	2016	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Jeremy has structural engineering experience with a variety of structure types, ranging from fixed and movable bridges, to overhead sign structures and traffic signal mast arms. He has served as an assistant team leader, team leader, and structural engineer for the firm's Florida inspection and rehabilitation contracts. Jeremy is SPRAT Level 1 rope access certified and has participated in many of the firm's large bridge inspection projects nationwide.		

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 time specified in the applicable MPR(s).
11/10 – 01/12	**Electrical System Inspection, Essex County, NJ** Engineering Intern for the Type II electrical inspection of three swing span bridges over the Passaic River in Essex County, New Jersey. The work was to assess the integral functionality of the electrical and safety mechanisms, such as traffic safety equipment, interlocking of the system, equipment grounding, resistance reading of electrical components, etc.
12/07 – 12/09	**Districtwide Local Government Bridge Inspection, FDOT District 6, FL** Structural Engineer and Inspector for multiple comprehensive structural, mechanical and electrical inspection services for the routine and fracture critical inspections of 11 swing and bascule bridges located throughout Miami-Dade and Monroe counties as part of the 2007-2009 cycle of the local government bridge inspection program. The local government bridge inspection program is administered by the state and facilitates the inspection of bridges owned by counties, cities and other local agencies. As part of the inspection program, reports were prepared using the state's Pontis software.

05/08 – 10/13	**Historic Ortega River Bridge Rehabilitation, FDOT District 2, Jacksonville, FL** Structural Engineer for the rehabilitation of the Ortega River Bridge, including the replacement of numerous components of the mechanical and electrical systems, including replacement of the control console and control system with a control rail to provide more space in the existing control house, replacement of the existing drives, a new relay-based control system, upgrading the span drive and span lock machinery and replacement of span support machinery components as needed to meet all AASHTO requirements and eliminate failure of pintles, replacement of the existing CCTV system, and replacement of the existing traffic warning gates and signals. To address the problem of potentially frozen bearings at approach spans, laminated neoprene elastomeric bearing pads were installed at the approach spans. Steve was responsible for preparation of all plans and specifications for the work.
01/19 – Present	**Statewide Load Ratings, South Carolina DOT, SC** Structural Engineer. TranSystems is one of six prime firms performing load ratings on bridges located throughout the state of South Carolina. Our team is determining the load capacity ratings for nearly 1,025 state, county and other municipality owned structures within the state. The bridge types include: simple and continuous span steel stringers/girders, girder-floorbeam systems and trusses; cable-stayed bridges; curved girder bridges; reinforced concrete slabs, tee beams, box culverts and prestressed concrete voided slabs, box beams and girders. Jeremy is responsible for modeling complex bridges on the project, including the cable stayed Ravenel crossing.
03/11 – 08/14	**Fixed and Movable Bridge Inspections, Kennedy Space Center, FL** Structural Engineer. TranSystems was selected to provide engineering services for the biennial inspection (including subaqueous), and evaluation of five bascule bridges and three fixed bridges at the Kennedy Space Center. The twin bridges over the Indian River carry NASA Parkway (SR 405) EB & WB, and are each almost 3,000 feet long, having concrete approach spans and twin double-leaf bascule spans of 130 feet. The Banana River Bridge has a total length of about 800 feet with a double leaf bascule span of 120 feet over the navigable channel. The Haulover Canal Bridge carries Kennedy Parkway over the ICWW and is a three span, double leaf bascule spanning 130 feet. The twin bridges carrying NASA Parkway over Kennedy Parkway consist of four fixed, simple spans totaling 161'-11" each.
09/01 – 12/09	**Bridge of Lions Rehabilitation, FDOT District 2, St. Augustine, FL** Engineering Intern during construction of the new movable span superstructure and existing piers rehabilitation/strengthening for the Bridge of Lions, a historic structure listed on the National Register of Historic Places. Jeremy performed load rating analysis of the main girders, and reviews of shop drawings as part of post-design services.

Firm employed by: TranSystems Corporation					
Name	Steven Hammerschmidt, PE		Years of relevant experience with this employer	11	
Title	Structural Engineer		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization			MS / 2011 / Civil Engineering (Structures) BS / 2008 / Civil Engineering SPRAT Level 3 Rope Access Technician		
Active registration number / state / expiration date			24431 / Kansas / 04-30-2024		
Year registered	2015	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Structural Engineer. Steven has experience in the design, rehabilitation, inspection, and load rating of bridges. He has worked on in-depth inspections of varying sizes and structure types, including high level steel girder, fracture critical structures, tub girders and truss bridges requiring rope access techniques. In addition, he has performed bridge structure repair and rehabilitation, as well as complex three-dimensional finite element modeling.		

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 time specified in the applicable MPR(s).
10/19 – 04/20	**Detroit-Superior Bridge, Ohio DOT District 12, Cleveland, OH** Structural Engineer for the load rating and rehabilitation for this structure. The Detroit-Superior Bridge, also known as the Veteran's Memorial Bridge, carries four lanes of US 6 approximately 2,880' over numerous local streets including the Center Street Swing Bridge, surface parking lots, RTA railroad tracks, and the Cuyahoga River. The double-deck bridge consists of several structure types: approach cellular units and tunnel sections, reinforced concrete arch approach spans, and a three-hinged steel through-arch main span. The load rating consisted of a complex three-dimensional model of the main span steel through-arch. Following the completion of the load rating rehabilitation plans were developed in order to address deficiencies noted on the bridge during the previous inspections of the structure.
05/15 – Present	**Metro North Railroad Bridge Inspections, CTDOT, Statewide, CT** Bridge Inspection Team leader for the inspection of railroad bridges carrying Metro-North commuter railroad tracks over various crossings. The bridges are located on the main line from Greenwich to New Haven, and on the Danbury, Waterbury, and New Canaan branch lines. The bridges vary in construction from concrete pipes to stone arches to thru-girders and deck girders, to large thru-truss movable bridges.
12/12 – 06/14	**Main Avenue Bridge Load Rating, Ohio DOT District 12, Cleveland, OH**

	Inspection Team Member and team leader for several inspections and load ratings of the structure. The Main Ave. Bridge is comprised of several structural types including: multiple rolled beams, riveted built-up girders, reinforced concrete slab and concrete beams, fracture critical continuous steel frames, and fracture critical cantilever steel deck trusses. The project also included the complete load rating of the steel and reinforced concrete superstructure components. Additionally, three-dimensional models of the structure were developed using STAAD to determine the maximum load effects in each member. Steven helped to develop emergency plans to strength deficient members.
06/14 – 09/20	**Fracture Critical Member Bridge Inspections, Texas DOT, Statewide, TX** Bridge inspection team leader for a statewide fracture critical member inspection contract for the Texas DOT. This project includes the inspection of fracture critical components on various structure types throughout the state of Texas with an emphasis on fatigue prone details. Some inspections under this contract have been performed using rope access techniques performed by SPRAT-certified bridge engineers.
03/19 – Present	**VAR D-12 Bridge Analysis, Ratings and Inspections, Ohio DOT District 12, OH** Structural Engineer using shop drawings to perform as-built analysis of the gusset plates for the primary truss members, based on FHWA draft guidelines and the Load Factor Rating (LFR) method. Conducted as-inspected analysis of the gusset plates using pocket UT data coving section losses along the gusset plates. The project is part of TranSystems' two-year bridge inspection task order contract.

Firm employed by: TranSystems Corporation					
Name	**Michael Elza, PE**		Years of relevant experience with this employer	2	
Title	Supervisor Mechanical Engineer		Years of relevant experience with other employer(s)	24	
Degree(s) / Years / Specialization			BS / 1995 / Mechanical Engineering		
Active registration number / state / expiration date			PE.39135 / Louisiana / 03-31-2023		
Year registered	2014	Discipline	Mechanical Engineering		
Contract role(s) / brief description of responsibilities			Mike has provided machine design services for the pulp and paper, agricultural, logging, and movable bridge industries. His areas of expertise include mechanical power transmission equipment and hydraulic machinery. His heavy movable structures experience includes design and inspection services for all types of movable bridges including floating draw spans and ferry ramps.		

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 time specified in the applicable MPR(s).
01/19 – 05/20	**Districtwide Local Government On/Off System Routine Bridge Inspection, FDOT District 4, FL** Senior Mechanical Engineer for the 2019-2020 inspection cycle providing comprehensive structural, mechanical, and electrical inspection services for the routine and fracture critical inspections of over 760 Fixed Bridges, two swing and 13 bascule bridges for the local government bridge inspection program. Reports contained recommended repairs and were submitted to the maintaining agencies to address the documented deficiencies.
08/04 – 08/15	**Historic West Columbus Drive Swing Bridge Design, Hillsborough County, Tampa, FL** Mechanical Engineer of record responsible for the conceptual, preliminary, and detailed designs for the mechanical rehabilitation of this historic 1926 bob-tailed swing bridge. Developed design plans, calculations, technical specifications, and construction cost estimate.
06/17 – 11/17	**Grosse Ile, Wayne County, Detroit, MI** Mechanical Engineer of Record for the detailed mechanical inspection of this swing bridge. Performed hands-on inspection and data analysis. Wrote report with recommendations and cost estimates.
10/08 – 02/10	**Ben Sawyer Bridge, South Carolina DOT, Charleston, SC** Lead Mechanical Engineer responsible for construction engineering and inspection services for this replacement swing bridge.
01/04 – 01/05	**Steamboat Slough Swing Bridges (SR 529/20E&W), Washington State DOT, Marysville, WA** Mechanical Engineer of record and task manager responsible for the mechanical portions of the operations, inspection, and maintenance manual (OIM) for two parallel swing bridges.

Firm employed by: TranSystems Corporation					
Name	**Krishna Mehta, PE**		Years of relevant experience with this employer	5	
Title	Mechanical Engineer		Years of relevant experience with other employer(s)	11	
Degree(s) / Years / Specialization			BS / 2005 / Mechanical Engineering FHWA-NHI-130056 Safety Inspection of In-Service Bridges for Professional Engineers		
Active registration number / state / expiration date			PE.45352 / Louisiana / 09-30-2023		
Year registered	2021	Discipline	Mechanical Engineering		
Contract role(s) / brief description of responsibilities		Krishna has more than 15 years of experience in the movable bridge industry. His experience includes the preparation of contract plans, specifications, and cost estimates for rehabilitation and new bridge design, field inspection of machinery and providing construction support services such as reviewing shop drawings and procedures. Krishna has provided mechanical construction engineering and inspection services and contractor services such as providing strain gauge bridge balance testing, balance calculations, counterweight design, balance testing swing bridges, and provided field support with millwrights to assist in the precision alignment of mechanical machinery systems. He has also been the lead mechanical inspector for tunnels, inspected to the latest SNTI and TOMIE standards.		

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 time specified in the applicable MPR(s).
2015	**East Roundbunch Road Swing Bridge Replacement, Orange County, Texas** Mechanical Engineer for the design of the span drive machinery, span support machinery, and end support machinery for a complete rehabilitation of this historic center bearing Swing Bridge. Duties included preparation and review of relevant calculations (machinery sizing), CAD management, site inspection, and preparation of design drawings, specifications and cost estimates.
2010	**Port Severn Swing Bridge Replacement, Ontario, Canada** Project Engineer for the design of the span drive machinery, span support machinery, and end support machinery for a complete replacement of a hydraulic cylinder operated Swing Bridge. Duties included preparation and review of all relevant calculations (cylinder sizing, balance wheel loads, end castor loads, end jack/wedge loads), developing the design, CAD management, and preparation of design drawings, specifications and cost estimates.
2016	**Wasauksing Swing Bridge Rehabilitation, Ontario, Canada** Mechanical Engineer for the rehabilitation design of span drive machinery and end support machinery for a hydraulic operated swing bridge. Based on the project scoping inspection, a limited rehabilitation design for the

	mechanical machinery was provided. Duties included preparation and review of all relevant calculations, development of the design, CAD management, and preparation of design drawings, specifications and cost estimates.
2016	**St. Peters Canal Swing Bridge Replacement, Nova Scotia, Canada** Mechanical Engineer for the design of the span drive machinery, span support machinery, and end support machinery for a complete replacement of a hydraulic cylinder operated swing bridge. Duties included preparation and review of relevant calculations (cylinder sizing, balance wheel loads, end castor loads, end jack/wedge loads), developing the design, CAD management, and preparation of design drawings, specifications and cost estimates.
11/18 – 02/21	**Three Railroad Movable Bridge Inspections, New Jersey Transit, NJ** Mechanical Engineer for the inspection of three movable bridges owned by New Jersey Transit. The bridges are HX Draw Bridge (Strauss Heel Trunnion Bascule Bridge), Raritan Driver Draw Bridge (Center Bearing Swing Bridge) and Shark River Draw Bridge (Single Leaf Scherzer Rolling Lift Bascule Bridge. This contract is to perform in-depth inspections of these movable bridges all consisting of a conventional gear drive. The inspections involved inspecting all machinery including the span drive machinery, span support machinery, span locks, rail joints, and auxiliary drive machinery.
02/19 – Present	**Asset Management for Movable Bridges, SCDOT, SC** Lead Mechanical Engineer for the inspection of movable bridges as part of an asset maintenance contract. Inspections of movable bridges are performed biennial and consist of trunnion bascule bridges and swing bridges with conventional gear drives and hydraulic drives. Work includes inspecting all machinery including span drive machinery, span support machinery, span locks, traffic gates and barriers, taking measurements of the open gearing, drive bearings, trunnion bearings, span locks, and pressure gauge readings.
2012	**Center Street Swing Bridge Rehabilitation, Cleveland, OH** Mechanical Engineer for the design of mechanical machinery for the rehabilitation of a mechanically operated swing bridge in Cleveland, Ohio. The rehabilitation project included the replacement of the main drive machinery, end jacks and rehabilitation of the span support bearing. Krishna's duties included preparation and review of all relevant calculations, development of the design, and preparation of design drawings, specifications and cost estimates. He also reviewed shop drawings for this project to verify that they meet requirements.

Firm employed by: TranSystems Corporation					
Name	**Nicholas Sprankle, PE**		Years of relevant experience with this employer	9	
Title	Supervisor Electrical Engineer		Years of relevant experience with other employer(s)	8	
Degree(s) / Years / Specialization			BS / 2005 / Electrical Engineering FHWA-NHI-130056 Safety Inspection of In-Service Bridges for Professional Engineers		
Active registration number / state / expiration date			PE.45388 / Louisiana / 09-30-2021		
Year registered	2021	Discipline	Electrical Engineering		
Contract role(s) / brief description of responsibilities		Nick has 17 years of experience in inspection, design, hydraulics and construction management of movable bridges. He has strong knowledge of engineering principles to design, fabricate, install and/or repair general electromechanical products. Nick has performed numerous electrical inspections, testing, evaluation, installation, rehabilitation, and maintenance of operating equipment for movable bridges and other heavy movable equipment. He has served as Team Leader on successful projects for clients including FDOT, NJDOT, CTDOT, DelDOT, MassDOT, Maryland DOT, and several other state and local agencies.			

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 time specified in the applicable MPR(s).
08/17 – 02/19	**J.A. Wintzell Memorial Bridge Vertical Lift, Alabama DOT, Bayou La Batre, AL** Electrical Engineer. TranSystems designed plans and specifications for replacement of the approved traffic gates, traffic barriers and span lock systems at the J.A. Wintzell Memorial Bridge in Bayou La Batre on SR-188 in Mobile County, Alabama. We reviewed bridge materials supplied by ALDOT, performed a field assessment of the span lock system, traffic gates and traffic barriers of the vertical lift bridge, and submitted a preliminary design report describing findings.
09/06 – 02/10	**Ouachita River Railroad Bridge, Monroe, LA** Electrical Engineer. Assisted in the design of a complete control system for a railroad swing bridge. Control system was relay-based. Worked with railroad owner and coordinated integration of railroad signals with bridge controls.
04/10 – 03/13	**Movable Bridge Design Services, Ohio DOT, City of Cleveland, OH** Electrical Engineer responsible for assessing the integrity and reliability of the operating systems of ***three movable bridges***: Willow Avenue Lift Bridge, Center Street Swing Bridge and Carter Road Lift Bridge. This project was on a tight schedule and involved providing recommendations as required to maintain and/or improve the operable and structural conditions of these structures.
01/17 – 05/20	**Districtwide Local Government On/Off System Routine Bridge Inspection, FDOT District 4, FL**

	Electrical Engineer for the 2017-2018 and 2019-2020 inspection cycles providing comprehensive structural, mechanical, and electrical inspection services for the routine and fracture critical inspections of over 760 Fixed Bridges, two swing and 13 bascule bridges for the local government bridge inspection program. Reports contained recommended repairs and were submitted to the maintaining agencies to address the documented deficiencies.
10/11 – 01/18	**Districtwide Local Government Bridge Inspection, FDOT District 6, FL** Electrical Engineer for comprehensive structural, mechanical and electrical inspection services for the routine and fracture critical inspections of 11 swing and bascule bridges located throughout Miami-Dade and Monroe counties as part of the local government bridge inspection program, completed as a subconsultant.
05/08 – 03/10	**Three Railroad Movable Bridge Inspections, NJTransit, NJ** Electrical Engineer for the inspection of three movable bridges owned by the New Jersey Transit. The bridges are HX Draw Bridge (Strauss Heel Trunnion Bascule Bridge), Raritan Driver Draw Bridge (Center Bearing Swing Bridge) and Shark River Draw Bridge (Single Leaf Scherzer Rolling Lift Bascule Bridge. This contract is to perform an in-depth inspection of these movable bridges all consisting of a conventional gear drive. The inspections involved inspecting all machinery including the span drive machinery, span support machinery, span locks, rail joints, and auxiliary drive machinery. The inspections also involved taking measurements of the open gearing, drive bearings, trunnion bearings, span locks, miter rail measurements, balance wheel measurements and center and end wedge measurements.
05/15 – Present	**Metro-North Railroad Bridge Inspections, Connecticut DOT, Newington, CT** Electrical Engineer. TranSystems is providing the annual inspection of approximately 200 Metro-North railroad bridges, ***including five movable bridges***; underwater inspections; mechanical, and electrical inspections; as well as inspection of the high towers (supporting the high voltage catenary lines) at the movable bridges. The scope of work includes assigned bridge load rating evaluations, as well as other activities such as nondestructive testing and ultrasonic testing as directed in CTDOT's Railroad Bridge Inspection Manual.
05/08 – 10/13	**Historic Ortega River Bridge, FDOT District 2, Jacksonville, FL** Electrical Engineer. Scope included providing plans and specifications for complete replacement of the bridge electrical power, control, and variable speed drive systems. The control system will utilize relay logic with a Programmable Logic Controller for monitoring. The drive system will use current flux vector, variable speed drive technology.

Firm employed by: TranSystems Corporation					
Name	**Ahmad Farhat, PE**		Years of relevant experience with this employer	10	
Title	Electrical Engineer		Years of relevant experience with other employer(s)	1	
Degree(s) / Years / Specialization			B.S., Electrical Engineer Florida State University, 2003		
Active registration number / state / expiration date			90840 / Florida / 2/28/2023		
Year registered	2018	Discipline	Electrical Engineering		
Contract role(s) / brief description of responsibilities		Electrical Engineer |Ahmad has 11 years of experience as an electrical engineer on inspection, design and construction management of movable bridges. His experience includes design for rehabilitation, new design, inspection, testing, evaluation, construction inspection, installation and maintenance of electrical systems and operating equipment for movable bridges and other transportation structures.			

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 time specified in the applicable MPR(s).
02/12 – 02/19	**Ortega River Bridge, FDOT District 2, Jacksonville, FL** Electrical Engineer. Scope includes providing plans and specifications for replacement of an auxiliary power system (Diesel generator set and Automatic Transfer Switch) and replacement of submarine cables and termination panels. Being a registered historic structure, the challenge at this bridge was to provide a design for an auxiliary power system that provided needed electrical power while fitting in the existing structure without altering the structure's outer appearance.
12/12 – 08/17	**Dania Beach Boulevard Bascule Bridge, FDOT District 4, Dania Beach, FL** Electrical Engineer. Scope included providing plans and specifications for a partial replacement of the bridge electrical power, control, and variable speed drive systems and relocation of the main control desk. Proper integration between new and existing equipment was one of the most critical concerns of the project.
04/10 – 07/19	**Flagler Avenue Bascule Bridge, FDOT District 4, West Palm Beach, FL** Engineering Intern. Provided construction services for the complete replacement of all electrical and mechanical equipment associated with a four-leaf bascule bridge. Scope of new design includes a control system utilizing a Programmable Logic Controller. Mechanical drive system utilizes vector drive technology. Services include shop drawing review, shop inspections, and site visits as necessary to ensure the necessary levels of quality for the construction and compliance with the contract documents.

04/21 – present	**Districtwide Local Government On/Off System Routine Bridge Inspection, FDOT District 4, FL** Electrical Engineer. TranSystems led the 2017-2024 inspection cycles providing comprehensive structural, mechanical, and electrical inspection services for the routine and fracture critical inspections of over 760 Fixed Bridges, two swing and 13 bascule bridges for the local government bridge inspection program. Reports contained recommended repairs and were submitted to the maintaining agencies to address the documented deficiencies.
06/19 – 4/21	**SR 822 Sheridan Street Bascule Bridge Rehabilitation, FDOT District 4, Hollywood, FL** Electrical Engineer. This bridge rehabilitation project involved modifying the existing bridge to install a traffic barrier to separate the roadway from the sidewalks, including installing new span locks within the barrier, repainting all structural steel, replacing sidewalk grating with textured aluminum plates; installing bicycle friendly riding surfaces in the roadway, installing a pedestrian railing, adding a second story to tender the house, installing a submarine conduit; replacing the bridge's electrical system, and rehabilitating the hydraulic cylinders and pumps. Ahmad performed hydraulic pressure balance testing and rehab construction balance calculations.
04/16 – 03/21	**SR 5/US 1/Brickell over Miami River Bridge, FDOT District 6, Miami, FL** Electrical Engineer. TranSystems prepared rehabilitation plans for a double leaf bascule bridge in downtown Miami, FL. Work included replacement of the hydraulic cylinders and pump motors, replacement of span lock hydraulic machinery and improvements to the ability to adjust the guides and receivers, installation of pedestrian gauges for added control of pedestrians, updated specialty lighting for the riverwalk under the bridge, and addressing other bridge aesthetic lighting. All repairs were designed to maintain traffic across the bridge.
12/16 – 12/20	**Camino Real Rd/Boca Club Bascule Bridge over ICWW, Palm Beach County, Boca Raton, FL** Engineering Intern. TranSystems provided structural, mechanical, and electrical engineers for technical oversight during the construction for the rehabilitation of this 1920s era double leaf rolling lift bascule bridge carrying Camino Real over the Intracoastal Waterway in Boca Raton, Florida. TranSystems personnel attended shop visits as the owner's representative and were present during key construction activities on the bascule span, within 24 hours' notice. TranSystems' responsibilities were to ensure that structural construction and installation of all mechanical and electrical components for the bascule span were done according to plans and contract documents**.**

	Firm Employed by	**Moffatt & Nichol, Inc.**		
	Name	Chace Hulon, PE, ADCI	Years of relevant experience with this employer	8
	Title	Program Manager and NBIS Team Leader	Years of relevant experience with other employer(s)	9

Degree(s) / Years / Specialization			BS / 2005 / Civil Engineering / Norwich University, Vermont FHWA-NHI-130055 Safety Inspection of In-Service Bridges
Active registration number / state / expiration date			PE.39701 / LA / 09-30-2023
Year registered	2009	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**NBIS Team Leader/ ADCI-certified Dive Supervisor / SPRAT Rope Access Technician**

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 time specified in the applicable MPR(s).
11/19 – Present	LADOTD IDIQ for In-Depth Inspection of Complex Bridges, Statewide, Louisiana. MN Project Manager and Team Leader for one of the current five-year retainer contracts as a major subconsultant to HNTB, contracted to perform in-depth bridge inspections on complex, signature, long-span bridges throughout Louisiana. Performed the inspections of both cable-stayed bridges in Louisiana (Audubon and Luling) with rope access techniques to inspect a total of 208 cables between the two bridges, their Gensui Dampers, and anchorages. Performed the inspection of the I-10 Horace Wilkinson Bridge completely utilizing rope access techniques and rolling lane closures to greatly minimize traffic impacts. Performed a supplemental inspection of the GNO Cantilever Truss Bridges in New Orleans utilizing rope access techniques. Performed a fracture critical inspection of the Green Bridge, a steel tied arch in New Orleans utilizing rope access and UAS access techniques. Performed the inspection of the I-10 Bridge over the Calcasieu River in Lake Charles utilizing rope access on FCM's and UAS access techniques on columns. Hands-on management and implementation of the QC review plan is vital to the continued success of this project. 10938.00
1/20 – Present	LADOTD IDIQ for Statewide In-Depth Bridge Inspection of Complex Structures, Louisiana. MN Project Manager and Team Leader for one of the current five-year retainer contracts as a major subconsultant to Gresham Smith, contracted to perform in-depth bridge inspections on complex, movable, long-span, and precast segmental box girder bridges throughout Louisiana. Performed and lead the structural, mechanical, and electrical inspections of six (6) movable bridges utilizing detailed, nondestructive and laboratory testing methods with hand sketches. Hands-on management and implementation of the QC review plan is vital to the continued success of this project. 10801.00
09/14 – Present	LADOTD IDIQ for Underwater Bridge Inspection, Statewide, Louisiana. Project Director and Team Leader for the third cycle of contracts in which we have performed 1,375 underwater NBIS bridge inspections statewide.

	Bridge types included movable bridges, long-span bridges with caissons and deep foundations, timber bridges with multiple bents in the water, culverts and multi-span bridges up to 14 miles in length. Assisted DOTD with several emergency response requests within hours utilizing local team members. 8346.00, 9840.00, 211288.00
02/21-Present	LADOTD Underwater Bridge Inspections (2020-2025) - Task 1, Statewide, Lousiana. Project Principal for routine underwater inspections of 75 bridges including major bridges over large waterways with deep foundations and dynamic channel conditions. All diving inspections were augmented with acoustic imaging technology for bridges over large waterways with high-risk environmental conditions. Hydrographic surveys were performed using the HydroLite-TM and MatLab for accurate and repeatable channel soundings at these bridge sites

	Firm Employed by	**Moffatt & Nichol, Inc.**		
	Name	Herodotos A. Pentas, PhD, PE	Years of relevant experience with this employer	1
	Title	Senior Bridge Engineer	Years of relevant experience with other employer(s)	32

Degree(s) / Years / Specialization			PhD / 1990 / Civil Engineering, Louisiana State University MS / 1986 / Civil Engineering, Unversity of Alabama at Birmingham BS / 1984 / Civil Engineering, Unversity of Alabama at Birmingham
Active registration number / state / expiration date			PE.24660 / LA / 09-30-2022
Year registered	1992	Discipline	Civil and Structural
Contract role(s) / brief description of responsibilities			**Bridge design services**

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 time specified in the applicable MPR(s).
2017	West Drive & Lock #2 Road Bridges Inspection & Load Analysis, St. Tammany Parish, Louisiana. Project manager for inspection, load analysis, and rating of timber bridge and concrete bridges by applying AASHTO and LADOTD Standards.
2016	Hickory Street Bridge Inspectioin, St. Tammany Parish, Louisiana. Project manager for bridge inspection, load analysis, and recommendations of improvements of timber plank bridge with damaged pile supports.
1997	LADOTD S.P. No. 737-99-0441 & 737-99-0158, Assessment of Bridge Damage by Watercraft, Divisions 2, 3, & 7, Louisiana. PM for baseline inspections of fender systems/substructures of 134 bridges to determine damages caused by marine vessels. Provided damage assessment, repair plan preparation, cost estimates, repair procedure, & report. Project received national attention due to its effectiveness & execution.
1996	LADOTD S.P. No. 700-99-0118, Structural Load Rating, 118 Bridge, Louisiana. Project manager for load rating of 118 bridges throughout the state. A majority of the bridges were prestressed concrete and steel plate girder design.
1996	LADOTD S.P. No. 700-99-0264, Bars Re-Rate, Louisiana. Project manager for conversion of all existing BARS load rating WSM and LFM files to VIRTIS database and running of converted BARS files to verify VIRTIS rating results for 493 structures. Analyzed with finite element method, three structures for three super-load permit vehicles and recommended distribution factor, influence line, permit laod review procedure, and examples for typical complex members (truss span, steel & prestressed girder, steel and reinforced concrete cap beam.
1993	LADOTD S.P. No. 700-30-0002, Complex Structures Load Rating, 37 Bridges, Louisiana. As Project Manager, led analysis and rating of 37 complex steel and concrete bridges using both working stress and load factor methods. Structure types included simple and mult-span steel curved plate girders, simple and multi-span normal and skewed box girders, and curve box girders.

1993	LADOTD S.P. No. 359-02-0012, Clear Lake Bridge Design, Louisiana. Project engineer for preliminary and final design for LA 1226 bridge over Clear Lake, a five-span continuous unit utilizing AASHTO Type IV precast prestressed concrete girders supported by 30-in-diam concrete pile bents.
1992	LADOTD S.P. No. 033-03-0033, Red River Bridge, Louisiana. Project engineer for preliminary and final design of superstructure, piers, and piles of LA Highway 107 over Red River at Moncla. Superstructure consisted of four-span steel composite girders. Substructure consisted of reinforeced concrete piers. Performed the ship impact analysis for piers and related analysis of bridge.

Firm Employed by	**Moffatt & Nichol, Inc.**		
Name	Charles Balzarini, PE	Years of relevant experience with this employer	9
Title	NBIS Team Leader and Diver	Years of relevant experience with other employer(s)	7

Degree(s) / Years / Specialization			BS / 2008 / Civil Engineering, University of Alaska, Anchorage FHWA-NHI-130055 Safety Inspection of In-Service Bridges FHWA-NHI-130078 Fracture Critical Inspection Techniques for Steel Bridges
Active registration number / state / expiration date			PE.13854 / AK / 12-31-2023
Year registered	2013	Discipline	Civil
Contract role(s) / brief description of responsibilities			**NBIS Team Leader / SPRAT Rope Access Technician / ADCI-certified Diver**

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 time specified in the applicable MPR(s).
06/17 – Present	LADOTD IDIQ for NBIS Underwater Bridge Inspection Retainer Contract, Statewide. NBIS Team Leader for the current five-year retainer contract to perform Levels I, II, and III underwater bridge inspections in accordance with NBIS and AASHTO Manual for Bridge Element Inspection. Site conditions included salt and fresh waters, with varying levels of current, having low to no visibility. UAI techniques were utilized to locate structural deficiencies and identify bottom conditions. Responsible for leading underwater inspection teams to complete field work, inspection reports, and quality control reviews
11/19 – Present	LADOTD IDIQ for Statewide In-Depth Bridge Inspection, Louisiana. NBIS Team Leader for one of the current five-year retainer contracts as a major subconsultant to HNTB, contracted to perform in-depth bridge inspections on complex, signature, long-span bridges throughout Louisiana. Performed the inspections of the Luling cable-stayed bridge in New Orleans with rope access techniques to inspect a total of 72 cables between the two bridges, their Gensui Dampers, and anchorages. Performed the inspection of the I-10 Horace Wilkinson Bridge completely utilizing rope access techniques and rolling lane closures to greatly minimize traffic impacts. Performed a supplemental inspection of the GNO Cantilever Truss Bridges in New Orleans utilizing rope access techniques. Performed a fracture critical inspection of the Green Bridge, a steel tied arch in New Orleans utilizing rope access and UAS access techniques.
04/16 – Present	LADOTD IDIQ for Statewide Ancillary Sign Inventory and Inspection, Louisiana. Team Leader for both five-year retainer contracts to perform approximately 40% 1700 sign truss inspections throughout Louisiana. Utilized the fall protection and rope access techniques with rescue plan development. Performed non-destructive testing on all anchor rods at all cantilever structures, base plates with excessive standoff distances, and where deficiencies or impacts were observed at steel and aluminum welds. Hands-on inspection work was performed overhead by bucket

	truck and climbing on active highways. Aluminum and steel sign truss members were inspected for inventory and for structural defects in accordance with FHWA guidelines. Drafted and reviewed inspection reports per the quality management plan. Monitored the TTC lane closures and reviewed the TTC plans for over 10 lane closures throughout the state.

	Firm Employed by	**Moffatt & Nichol, Inc.**		
	Name	Joshua Martinez, PE, ADCI	Years of relevant experience with this employer	7
	Title	NBIS Team Leader and Diver	Years of relevant experience with other employer(s)	5

Degree(s) / Years / Specialization			MCE / 2013 / Structural Engineering, North Carolina State University BCE / 2009 / Structural Engineering, United States Air Force Academy FHWA-NHI-130055 Safety Inspection of In-Service Bridges FHWA-NHI-130078 Fracture Critical Inspection Techniques for Steel Bridges
Active registration number / state / expiration date			PE.42085 / LA / 03-31-2022
Year registered	2013	Discipline	Civil
Contract role(s) / brief description of responsibilities			**NBIS Team Leader / SPRAT Rope Access Technician / ADCI-certified Diver**

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 time specified in the applicable MPR(s).
06/17 – Present	LADOTD IDIQ for NBIS Underwater Bridge Inspection Retainer Contract, Statewide. NBIS Team Leader for the current five-year retainer contract to perform Levels I, II, and III underwater bridge inspections in accordance with NBIS and AASHTO Manual for Bridge Element Inspection. Site conditions included salt and fresh waters, with varying levels of current, having low to no visibility. UAI techniques were utilized to locate structural deficiencies and identify bottom conditions. Responsible for leading underwater inspection teams to complete field work, inspection reports, and quality control reviews. 9840.00
09/13 – 06/17	LADOTD 2013 NBIS Underwater Bridge Inspection Retainer Contract, Statewide. NBIS Inspector for the previous five-year retainer contract to perform Levels I, II, and III underwater bridge inspections in accordance with NBIS and AASHTO Manual for Bridge Element Inspection. Responsible for underwater inspection field work, inspection reports, and quality control reviews. UAI techniques were utilized to locate structural deficiencies, identify potential undermining, observe the limits of scour, and document the limits of riprap installations.
03/17 – Current	Statewide Topside Inspection of Bridges for the North Carolina Department of Transportation, North Carolina. NBIS Team Leader responsible for topside inspection of bridges under two, consecutive, multi-year, on-call contracts. Inspected single and multi-span bridges as well as concrete, steel, and timber. Mr. Martinez was responsible for rating the overall bridge condition and determining critical maintenance items per state requirements. He also developed and generated reports rating to the element base level. Mr. Martinez familiarized himself with several inspection vehicles including a bucket truck, snooper, and under-bridge platform. He served

	as engineer reviewer for reports to ensure accuracy and proper rating per National Highway Institute (NHI) guidance. 9240.00 & 10011.00

	Firm Employed by	**Moffatt & Nichol, Inc.**		
	Name	Steven Armstrong, PE, ADCI	Years of relevant experience with this employer	8
	Title	NBIS Team Leader	Years of relevant experience with other employer(s)	2

Degree(s) / Years / Specialization			MS / 2021 / Civil Engineering / University of New Orleans BS / 2015 / Civil and Environmental Engineering / University of New Orleans FHWA-NHI-130055 Safety Inspection of In-Service Bridges FHWA-NHI-130078 Fracture Critical Inspection Techniques for Steel Bridges
Active registration number / state / expiration date			PE.44405 / LA / 09-30-2022
Year registered	2020	Discipline	Civil
Contract role(s) / brief description of responsibilities			**NBIS Team Leader / FAA Remote Drone Pilot / SPRAT Rope Access Technician / ADCI-certified Diver**

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 time specified in the applicable MPR(s).
11/19 – Present	LADOTD IDIQ for Statewide In-Depth Bridge Inspection, Louisiana. Team Member for one of the current five-year retainer contracts as a major subconsultant to HNTB, contracted to perform in-depth bridge inspections on complex, signature, long-span bridges throughout Louisiana. Performed the inspections of the Audubon cable-stayed bridge with rope access techniques to inspect a total of 136 cables, the HDPE protection, and anchorages. Performed the inspection of the I-10 Horace Wilkinson Bridge (New Bridge) completely utilizing rope access techniques and rolling lane closures to greatly minimize traffic impacts. Performed draft inputs and consolidated notes from multiple teams to present proper data consistently throughout the report.
1/20 – Present	LADOTD IDIQ for Statewide In-Depth Bridge Inspection of Complex Structures, Louisiana. Team Member for one of the current five-year retainer contracts as a major subconsultant to Gresham Smith, contracted to perform in-depth bridge inspections on complex, movable, long-span, and precast segmental box girder bridges throughout Louisiana. Performed the structural inspections of six (6) movable bridges along with the M&E team. Utilized nondestructive UT methods to accurately document section loss in fracture critical members. Performed draft inputs and consolidated notes from multiple teams to present proper data consistently throughout the report.
09/14 – Present	LADOTD IDIQ for Underwater Bridge Inspection, Statewide, Louisiana. NBIS Team Leader for the current five-year retainer contract to perform Levels I, II, and III underwater bridge inspections in accordance with NBIS and AASHTO Manual for Bridge Element Inspection. Responsible for leading underwater inspection teams to complete field work, inspection reports, and quality control reviews. Bridge types inspected consisted of movable bridges, truss bridges, timber stringer bridges, cable-stayed bridges, and single and multi-span girder bridges up

	to fourteen miles in length. Site conditions included salt and fresh waters, with varying levels of current, having low to no visibility. UAI techniques were utilized to locate structural deficiencies and identify bottom conditions.

	Firm Employed by	**Moffatt & Nichol, Inc.**		
	Name	Matthew Balzarini, PE, ADCI	Years of relevant experience with this employer	5
	Title	NBIS Team Leader and Diver	Years of relevant experience with other employer(s)	4

Degree(s) / Years / Specialization			BS / 2011 / Civil Engineering, University of New Orleans FHWA-NHI-130055 Safety Inspection of In-Service Bridges FHWA-NHI-130078 Fracture Critical Inspection Techniques for Steel Bridges
Active registration number / state / expiration date			Professional Engineer: 118893 / AK / 12-31-2023
Year registered	2017	Discipline	Civil
Contract role(s) / brief description of responsibilities			**NBIS Team Leader / SPRAT Rope Access Technician / ADCI-certified Diver**

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 time specified in the applicable MPR(s).
11/19 – Present	LADOTD IDIQ for Statewide In-Depth Bridge Inspection, Louisiana. NBIS Team Leader Member for one of the current five-year retainer contracts as a major subconsultant to HNTB, contracted to perform in-depth bridge inspections on complex, signature, long-span bridges throughout Louisiana. Performed the inspections of both cable-stayed bridges in Louisiana (Audubon and Luling) with rope access techniques to inspect a total of 208 cables between the two bridges, their Gensui Dampers, and anchorages. Performed the inspection of the I-10 Horace Wilkinson Bridge completely utilizing rope access techniques and rolling lane closures to greatly minimize traffic impacts. Performed a supplemental inspection of the GNO Cantilever Truss Bridges in New Orleans utilizing rope access techniques. Performed a fracture critical inspection of the Green Bridge, a steel tied arch in New Orleans utilizing rope access and UAS access techniques. Performed the inspection of the I-10 Bridge over the Calcasieu River in Lake Charles utilizing rope access on FCM's and UAS access techniques on columns.
06/18 – Present	LADOTD IDIQ for NBIS Underwater Bridge Inspection Retainer Contract, Statewide. NBIS Team Leader and Team Member for the current five-year retainer contract to perform Levels I, II, and III underwater bridge inspections in accordance with NBIS and AASHTO Manual for Bridge Element Inspection. Site conditions included salt and fresh waters, with varying levels of current, having low to no visibility. UAI techniques were utilized to locate structural deficiencies and identify bottom conditions. Responsible for leading underwater inspection teams to complete field work, inspection reports, and quality control reviews.
07/18 – Present	LADOTD IDIQ for Statewide Ancillary Sign Inventory and Inspection, Louisiana. Team Leader for both five-year retainer contracts to perform approximately 10% 1700 sign truss inspections throughout Louisiana. Utilized the fall protection and rope access techniques with rescue plan development. Performed non-destructive testing on all anchor rods at all cantilever structures, base plates with excessive standoff distances, and where deficiencies or

	impacts were observed at steel and aluminum welds. Drafted and reviewed inspection reports per the quality management plan. Monitored the TTC lane closures and reviewed the TTC plans for over 10 lane closures throughout the state.

	Firm Employed by	**Moffatt & Nichol, Inc.**		
	Name	Jeffrey Gazarek, ADCI	Years of relevant experience with this employer	6
	Title	NBIS Team Leader and Safety Officer	Years of relevant experience with other employer(s)	10

Degree(s) / Years / Specialization	Commercial Diving with Concentration in Subsea Inspection / 2005 / Divers Institute of Technology FHWA-NHI-130055 Safety Inspection of In-Service Bridges
Active registration number / state / expiration date	N/A
Year registered: N/A / Discipline	N/A
Contract role(s) / brief description of responsibilities	**NBIS Team Leader / Safety Officer / Equipment Manager / SPRAT Rope Access Technician / ADCI-certified Diver**

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 time specified in the applicable MPR(s).
09/14 – Present	LADOTD IDIQ for Underwater Bridge Inspection, Statewide, Louisiana. NBIS Team Leader for the third cycle of contracts in which we have performed 1,375 underwater bridge inspections statewide. Responsible for leading dive operations for underwater inspection teams to complete field work, writing inspection reports, and performing quality control reviews. Bridge types inspected consisted of movable bridges, truss bridges, timber stringer bridges, cable-stayed bridges, and single and multi-span girder bridges up to fourteen miles in length. Site conditions included salt and fresh waters, with varying levels of current, having low to no visibility. UAI techniques were utilized to locate structural deficiencies and identify bottom conditions. 8346.00, 9840.00, 211288.00
04/16 – Present	LADOTD IDIQ for Statewide Ancillary Sign Inventory and Inspection, Louisiana. Team Leader and Rope Access Supervisor for both five-year retainer contracts. Performed ~40% of 1700 sign truss inspections throughout Louisiana. Utilized fall protection and rope access techniques with rescue plan development. Performed non-destructive testing on all anchor rods at all cantilever structures, base plates with excessive standoff distances, and where deficiencies or impacts were observed at steel and aluminum welds. Drafted and reviewed inspection reports per the quality management plan. Monitored the TTC lane closures and reviewed the TTC plans for over 10 lane closures throughout the state. 8973-00 & 11168.00
11/14 – Present	MDOT 2014 & 2021 Underwater Bridge Inspection Contract, Districts 1 & 2, Mississippi. NBIS Bridge Inspector performed underwater inspections of 12 bridges in accordance with NBIS and MDOT PONTIS Inspection Manual. Bridges inspected were constructed of concrete, steel, and timber, and high-resolution scanning sonar was used on selected bridge elements. Responsible for pre-inspection planning, scheduling, field work, performing NDT and soundings, diving operations, drafting reports, sketches, and repair recommendations. 8601.00 &

11/19 – Present	LADOTD IDIQ for Statewide In-Depth Bridge Inspection, Louisiana. Team Member for one of the current five-year retainer contracts as a major subconsultant to HNTB, contracted to perform in-depth bridge inspections on complex, signature, long-span bridges throughout Louisiana. Performed the inspection of the I-10 Horace Wilkinson Bridge (New Bridge) completely utilizing rope access techniques and rolling lane closures to greatly minimize traffic impacts. 10938.00

	Firm Employed by	**Moffatt & Nichol, Inc.**		
	Name	Christopher (Chip) Eschenbach	Years of relevant experience with this employer	4
	Title	NBIS Team Member	Years of relevant experience with other employer(s)	6

Degree(s) / Years / Specialization			Associates / 2015 / Welding Technology FHWA-NHI-130055 Safety Inspection of In-Service Bridges
Active registration number / state / expiration date			N/A
Year registered	N/A	Discipline	N/A
Contract role(s) / brief description of responsibilities			**NBIS Underwater Inspector / SPRAT Rope Access Technician / ADCI-certified Diver**

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 time specified in the applicable MPR(s).
11/19 – Present	LADOTD IDIQ for Statewide In-Depth Bridge Inspection, Louisiana. NBIS Team Member for one of the current five-year retainer contracts as a major subconsultant to HNTB, contracted to perform in-depth bridge inspections on complex, signature, long-span bridges throughout Louisiana. Performed the inspections of both cable-stayed bridges in Louisiana (Audubon and Luling) with rope access techniques to inspect a total of 208 cables between the two bridges, their Gensui Dampers, and anchorages. Performed the inspection of the I-10 Horace Wilkinson Bridge completely utilizing rope access techniques and rolling lane closures to greatly minimize traffic impacts. Performed a supplemental inspection of the GNO Cantilever Truss Bridges in New Orleans utilizing rope access techniques. Performed a fracture critical inspection of the Green Bridge, a steel tied arch in New Orleans utilizing rope access and UAS access techniques. Performed the inspection of the I-10 Bridge over the Calcasieu River in Lake Charles utilizing rope access on FCM's and UAS access techniques on columns.
1/20 – Present	LADOTD IDIQ for Statewide In-Depth Bridge Inspection of Complex Structures, Louisiana. NBIS Team Member for one of the current five-year retainer contracts as a major subconsultant to Gresham Smith, contracted to perform in-depth bridge inspections on complex, movable, long-span, and precast segmental box girder bridges throughout Louisiana. Performed and lead the structural, mechanical, and electrical inspections of six (6) movable bridges utilizing detailed, nondestructive and laboratory testing methods with hand sketches. Hands-on management and implementation of the QC/QA plan is vital to the continued success of this project.
08/18 – Present	LADOTD IDIQ for Underwater Bridge Inspection, Statewide, Louisiana - UWI District 62, Baton Rouge, LA | Bridge Inspector for bridges in district 62. Responsibilities included the underwater portion of the bridge inspection. Tasks for inspection of said bridges included inspection of all underwater members, gathering sediment depths around bridges, listing any additional defects not listed in previous reports, taking photos and updating

	current information on each bridge. Responsibilities for the job compiled of equipment preparations, driving the truck and company boat, diving on bridges and assisting with the inspection and data collection for the bridges above the water. The diving operations were conducted from the Baton Rouge pontoon boat using surface-supplied diving or scuba diving techniques to ensure safe practices as well as clear and precise notations.
09/18 – Present	LADOTD IDIQ for Statewide Ancillary Sign Inventory and Inspection, Louisiana. Bridge Inspector for the current five-year retainer contract to perform approximately 50% of 1,700 routine and interim overhead sign structure inspections.

Firm Employed by	**Moffatt & Nichol, Inc.**		
Name	Yehoshua "Josh" Gilad, PE	Years of relevant experience with this employer	10
Title	Senior Mechanical Engineer	Years of relevant experience with other employer(s)	25

Degree(s) / Years / Specialization	MS / 1980 / Mechanical Engineering, Rice University BS / 1971 / Mechanical Engineering, Israel Institute of Technology Graduate Courses / 1981 / Electrical Engineering, University of Houston
Active registration number / state / expiration date	Professional Engineer: M30046 / CA / 09-30-2022
Year registered: 1986 / Discipline	Mechanical Engineer
Contract role(s) / brief description of responsibilities	**Mechanical Engineer for Bridge Inspection Services**

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 time specified in the applicable MPR(s).
11/19 - Present	LADOTD IDIQ for Statewide In-Depth Bridge Inspection of Complex Structures, Louisiana. Mechanical engineer for current five-year retainer contract (2019-2024) to perform in-depth bridge inspections of mechanical, electro-mechanical, & electro-hydraulic systems for sing span bridges & prepare mechanical sections of inspection reports. Conducted in accordance with AASHTO Movable Bridge Manual, mechanical inspection examined electric motor driven gearing operations associated with main span rotation and wedge operation or live load shoes to support four corners of movable span, thruster brake, gear box, speed reducers, solenoid brakes, traffic gates, and barrier gates. Inspection also examined general operation, open gearing, speed reducers, shafts, shaft bearings/shaft couplings, hydraulic power units, hydraulic piping system, hydraulic cylinders/motors/ rotary actuators, hydraulic directional control valves [DCV], machinery base, access ladder/platforms, balance wheel, tracks, and barriers. For all systems and components, condition assessment is performed, and the systems and components are classified and ranked in accordance with LADOTD criteria, with recommendation for repair or replacement, where applicable. To date, he has completed in-depth mechanical inspection of six swing span bridges: Bayou Teche (LA 3182) Bayside Bridge (Recall 006306), New Iberia, LA – span-hydraulic, wedge-hydraulic Indian Village Bridge (LA 3066S) (Recall 054472) over Plaquemine Bayou – span-hydraulic, wedge-hydraulic Bayou Grosse Tete Bridge (LA 0077) (Recall 054360) over Intracoastal Waterway, Iberville Parish, Plaquemine – span-hydraulic, wedge-hydraulic Highway 56 Bridge (LA 0056) (Recall 003450) over Boudreaux Canal, Terrebonne Parish, Chauvin – span – hydraulic, wedge -mechanical

	Convent Street Bridge (LA 0324) (Recall 009130) over Bayou Teche, St. Mary Parish, Charenton – span-mechanical, wedge-mechanical Bayou Teche (LA 0671) (Recall 005860), Jeanerette, LA – span-mechanical, wedge-mechanical
02/93 – 06/94	Movable Bridge Inspection along the Amtrak Northeast Corridor. As part of New Haven to Boston rail line electrification project, inspected movable bridges including all bascule & swing bridges along the way. Inspection collected data for use in conceptual design of retractable catenary overhead wire system designed to clear bridge when it was about to open & move back on the bridge after it closed.

	Firm Employed by	**Moffatt & Nichol, Inc.**		
	Name	J. Alan Gregg, Jr. PE	Years of relevant experience with this employer	2
	Title	Electrical Engineer	Years of relevant experience with other employer(s)	5

Degree(s) / Years / Specialization			BS / 2015 / Electrical Engineering, Kennesaw State University BA / 2008 / Political Science, Augusta University
Active registration number / state / expiration date			Professional Engineer: GA / 45320 / Exp. 12-31-2022
Year registered	2019	Discipline	Electrical Engineer
Contract role(s) / brief description of responsibilities			**Electrical Engineer for Bridge Inspection Services**

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 time specified in the applicable MPR(s).
11/19 - Present	LADOTD IDIQ for Statewide In-Depth Bridge Inspection of Complex Structures, Louisiana. As a subconsultant under a five-year retainer contract for in-depth inspection of complex and movable bridges, Mr. Gregg has served as Moffatt & Nichol's electrical engineer to provide in depth electrical systems inspection and reports for swing span movable bridges. Conducted in accordance with AASHTO Movable Bridge Inspection, Evaluation and Maintenance Manual and the LADOTD Bridge Design and Evaluation Manual, electrical inspection examined power supply and distribution equipment, control systems, electrical motors/motor controls, electrically operated brakes, control cabinets, conductors, conduit systems, lighting and receptacle outlets, grounding systems, and lightning protection systems. In addition to thorough visual inspection, Mr. Gregg utilized the following advanced measurement and inspection methods: cable and motor winding insulation resistance testing grounding system impedance testing measurement of motor no-load and full load voltages measurement of motor starting and full-load currents. Electrical section of inspection reports assessed condition and provided repair recommendations for all inspected electrical components. To date, Mr. Gregg has completed in-depth electrical inspection of four Louisiana swing span bridges.
10/17 – 12/18	I-20/US-21 Bridge Replacement & Intersection Improvements, Columbia County, Georgia. Electrical engineer for project involving demolition & replacement of a bridge over Interstate-20 and conversion of ramp intersections above interstate into roundabouts. Provided lighting & associated electrical distribution design for interstate access ramps and interchange roundabouts. Design challenges included special coordination to account for existing high-voltage overhead transmission lines passing over the roadway, as well as transition lighting for motorists departing the interchange and moving toward surrounding unlighted areas.

02/19 – 05/20	Berckmans Road Phase II, Augusta, Georgia. Bridge replacement & cross section realignment/modifications of a 0.8-mile-long section of roadway which included conversion of a 4-way intersection into a roundabout. Provided lighting design for roundabout and two legs of Berckmans road that connect to it. Design challenges included constrained right-of-way, dense roadside overhead utilities, and the need for significant light trespass mitigation near residences adjacent to portions of the roadway.

Firm employed by	FORTE & TABLADA		
Name	**Russell "Joey" Coco, PE, MBA**	*Years of relevant experience with this employer*	14
Title	President/CEO	*Years of relevant experience with other employer(s)*	6

Degree(s) / Years / Specialization	BSCE / 2000 / LSU MBA / 2006 / LSU Coastal Engineering Certificate / 2008 / Old Dominion University
Active registration number / state / expiration date	31337 / LA / 09/30/2022
Year registered 2004 *Discipline*	Civil Engineering
Contract role(s) / brief description of responsibilities	Principal-in-Charge for Forte and Tablada staff

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 time specified in the applicable MPR(s).*
03/18-Ongoing	**LA DOTD Retainer Contract for Off-System Bridge Load Rating – Statewide, LA** – QA/QC review engineer for a retainer contract that includes multiple Task Orders to inspect and load rate off-system bridges and culverts across the state. Task Order 1 – Inspection and load rating of 12 complex off-system bridges, including lift spans, swing spans, bascule spans, ferry landings, and truss bridges; Task Order 2 –Inspection and load rating of approximately 200 off-system bridges, consisting primarily of slab spans; Task Order 4 –Inspection and load rating of approximately 300 off-system bridges, consisting primarily of slab spans, but also including concrete and steel girder spans.
03/14-03/17	**Load Rating of On-System Bridges – Statewide, LA – LA DOTD** – QC/QA review engineer for over 200 slab span and girder bridges across Louisiana. Utilized Virtis load rating software.
06/16-04/20	**St. Tammany Parish Off-System Bridge Load Ratings, St. Tammany Parish, LA** – QC/QA review engineer for the data collection, inspection, and load rating of numerous slab span, girder, and railcar bridges in St. Tammany Parish.
11/16-10/20	**Livingston Parish Off-System Bridge Load Ratings – Livingston Parish, LA** – QC/QA review engineer for the inspection and load rating of numerous existing slab span bridges and culverts in Livingston Parish In accordance with FHWA Metric 13, which requires a current load rating of all Off-System bridges.
04/11-10/16	**Iberville Parish Bridge Ratings and Prioritization – Iberville Parish, LA** – Served as a project engineer for continued off-system bridge ratings, repairs, and repair/replacement prioritization recommendations for Iberville Parish.
05/19-09/19	**H.000303.6-Danziger Bridge Rehabilitation - Orleans Parish, LA** - Principal overseeing survey investigation of Danziger Bridge. Included laser scanning and comparison of actual conditions to original plans.
10/18 - 12/18	**4400010587- Sunshine Bridge Repair- St. James Parish, LA- LADOTD-** Principal overseeing topographic surveying and terrestrial LIDAR services for the LA DOTD Sunshine Bridge Emergency Repair project following the severe impact of a barge mounted crane with the lowest horizontal bridge chord.

05/17-10/18	**Belle Chasse Bridge and Tunnel Replacement Hydrographic Survey- Plaquemines Parish, LA**- Principal-in-charge for comprehensive topographic surveying services for the Belle Chase Bridge and Tunnel Replacement project for LA DOTD. Included in this work was a survey performed utilizing traditional methods, terrestrial laser scanning of roadway surfaces, and multi-beam 3-D hydrographic surveying.
11/19 - 11/20	**S.P. No. H.012083.5- Calcasieu River Bridge Investigation- Calcasieu Parish, LA- LADOTD-** Principal overseeing laser scanning services for the I-10/Lake Calcasieu bridge in Lake Charles, LA.
08/19-Ongoing	**H.011670-I-10/Loyola Interchange Improvements - Kenner, LA** – Principal-in-Charge overseeing Topographic Survey, Right-of-Way Survey, and Drainage Survey. The project stretches from the levee in Kenner to the Williams Blvd. off ramp, as well as Loyola Avenue and portions of Veterans Blvd.
11/18-04/19	**H.011684.5-LA 327 Spur: Staring Lane Extension – East Baton Rouge Parish** – Principal-in-Charge for comprehensive topographic surveying services and developing a drainage map for the Staring Lane Extension project for LA DOTD. Included in this work was a survey performed utilizing traditional methods and terrestrial laser scanning of roadway surfaces.
01/10-12/12	**I-10: Siegen Lane to Highland Road Design Build ITR** — East Baton Rouge Parish, LA – LA DOTD – Served as leader of Independent Technical Review of all bridge structures.
09/17-12/19	**S.P. No. H.011808.5- Palmetto Co. Canal Bridge - St. Landry Parish, LA -** Principal-in-Charge to provide property surveys, title take-offs, and right-of-way map services for the removal and replacement of a timber trestle bridge that spans Bayou Des Glaises, located along La. Hwy. 10 in St. Landry Parish near the town of Palmetto, La.
01/09-12/10	**I-12: O'Neal Lane to Range Road Design Build ITR – East Baton Rouge Parish, LA** – LA DOTD – Served as leader of Independent Technical Review of all bridge structures.
01/09-12/10	**S.P. Nos. 454-01-0047 & 454-02-0025- I-12: O'Neal Lane to Range Road Design Build ITR – East Baton Rouge Parish, LA – LA DOTD** – Served as leader of Independent Technical Review of all bridge structures.
03/15-02/18	**Holly Drive Bridge Replacement, St. Tammany Parish, LA** – Served as a project principal for an existing timber bridge replacement in St. Tammany Parish.
03/15-07/15	**Bossier Parish Bridge Priority Study, Bossier Parish, LA** – Served as the project manager and engineer for prioritizing the repair and maintenance of twelve bridges owned by Bossier Parish Police Jury.
11/14-09/19	**Railroad Bridge Replacement, Plaquemines, LA** – Served as a project principal for the replacement of an existing railroad bridge structure in an industrial plant.
12/14-11/15	**Westdale Road Bridge over Bayou Pierre, DeSoto Parish, LA** – Served as a project principal for laser scanning, inspection, and repair plans for an existing closed bridge.

Firm employed by	FORTE & TABLADA		
Name	**Joffrey Easley, MS, PE**	*Years of relevant experience with this employer*	14
Title	Project Manager	*Years of relevant experience with other employer(s)*	3
Degree(s) / Years / Specialization	BSCE / 2000 / LSU MSCE / 2003 / LSU		
Active registration number / state / expiration date	31542 / LA / 03/31/2023		
Year registered	2004	*Discipline*	Civil Engineering
Contract role(s) / brief description of responsibilities	Bridge Engineer		

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 time specified in the applicable MPR(s).*
03/18-Ongoing	**LA DOTD Retainer Contract for Off-System Bridge Load Rating – Statewide, LA** – Project Manager, Load Rating Engineer, and Team Leader for a retainer contract that includes multiple Task Orders to inspect and load rate off-system bridges and culverts across the state. Task Order 1 – Inspection and load rating of 12 complex off-system bridges, including lift spans, swing spans, bascule spans, ferry landings, and truss bridges; Task Order 2 – Inspection and load rating of approximately 200 off-system bridges, consisting primarily of slab spans; Task Order 4 – Inspection and load rating of approximately 300 off-system bridges, consisting primarily of slab spans, but also including concrete and steel girder spans.
01/21 – 9/21	**Retainer for Bridge Preservation – US90Z: Westbank Expressway Rehab, Jefferson Parish, LA-** Project Manager to develop plans for the rehabilitation of the nearly 6-mile long Westbank Expressway in Jefferson Parish, LA.
10/15- 4/19	**LA DOTD Retainer Contract for Bridge Preservation – Atchafalaya Floodway**- Project Manager to provide engineering services for the rehabilitation of multiple bridges along I-10 between Baton Rouge and Lafayette. Bridge types included PPC and steel girder spans, steel grid deck, and slab spans. Scope of work included performing a detailed inspection, documenting deficiencies, and preparing rehabilitation plans for all bridges.
04/19	**Load Rating of On-System Bridges – Statewide, LA – LA DOTD** – Load rating engineer for over 200 slab span and girder bridges across Louisiana. Utilized Virtis load rating software.
05/16-10/19	**Retainer Contract for Complex Bridge Rating, Statewide, LA- LA DOTD**- Project Manager to perform a load rating for the US 90 West Middle River Bridge near the Louisiana/Mississippi border. A detailed inspection of the steel through-trusses was provided.
06/16-04/20	**St. Tammany Parish Off-System Bridge Load Ratings, St. Tammany Parish, LA** - Project Manager to collect all available bridge files from all available resources, including LADOTD and Parish records, for numerous slab span, girder, and railcar bridges in St. Tammany Parish and perform inspections and load ratings for the bridges.
11/16-10/20	**Livingston Parish Off-System Bridge Load Ratings – Livingston Parish, LA** – Inspection and load rating of numerous existing slab span bridges and culverts so that Livingston Parish would follow FHWA Metric 13, which requires all Off-System bridges to be load rated.

04/18-09/18	**Tangipahoa Parish Off-System Bridge Load Ratings – Tangipahoa Parish, LA** – Inspection and load rating of 2 railroad flatcar bridges and a slab span bridge to comply with FHWA Metric 13, which requires a load rating of all Off-System bridges.
05/20-07/20	**St. James Parish Off-System Bridge Load Rating – St. James Parish, LA** – Inspection and load rating of a slab span bridge to comply with FHWA Metric 13, which requires a load rating of all Off-System bridges.
08/19-02/20	**LA DOTD Retainer for In-Depth Bridge Inspections – Simmesport, LA** – Inspection of the approach spans, consisting of rolled steel and plate girder spans supported by column bents, of the LA 1 bridge over the Atchafalaya River.
04/11-10/16	**Iberville Parish Off-System Bridge Load Ratings and Prioritization – Iberville Parish, LA** – Inspection and load rating of 42 existing off-system bridges so that Iberville Parish would follow FHWA Metric 13, which requires all Off-System bridges to be load rated. Also developed a repair and replacement report for all bridges.
12/12-Ongoing	**Cook Road Expansion** – Designed and produced plans for new bridges over Gray's Creek to provide additional access to the Juban Crossing shopping center by extending Cook Road off of Pete's Highway. Bridge includes special details to accommodate sidewalks for pedestrian use.
10/18 - 5/19	**H.000445.1-1- US 190 over UPRR and Little Teche Bayou, St. Landry Parish, LA -** Project Engineer for this project that developed a scoping document for the replacement or rehabilitation of the EB and WB US 190 bridges over the Union Pacific Railroad (UPRR) near I-49 and over Little Teche Bayou in St. Landy Parish, LA. Based on the findings, a Bridge Evaluation Report outlining the feasibility and preliminary cost estimates for several construction phasing alternatives, as well as a recommended scope of work, was developed.
11/14-08/16	**Westdale Road over Bayou Pierre Repairs – DeSoto Parish, LA** – Inspected, laser scanned, developed plans, and provided construction administration services for the repairs of a timber bridge that had been closed due to its deteriorated condition. Provide a load rating following the completion of the repairs. Repairs allowed the bridge to be re-opened to vehicular traffic.
01/16 - 01/21	**Whittington Road Bridge Replacement – Livingston Parish, LA –** Design engineer for the replacement of an existing timber bridge over Grays Creek with a new concrete slab span bridge through the LADOTD off-system bridge replacement program.
12/13-05/14	**Million Dollar Road Bridge Rating – St. Tammany Parish, LA** – Served as a rating engineer for load rating of a slab span bridge in St. Tammany Parish. Utilized Virtis load rating software.
06/15-06/16	**East Baton Rouge Parish Bridge Replacements** – Provided design services and load rated multiple slab span bridges that incorporated sidewalks. Design services included determination of pile loads, superstructure and substructure design, and independent technical review of completed plans.
05/13-12/14	**Musson Lane Bridge Replacement, Iberville Parish, LA** – Performed a detailed structural inspection and load rating of the existing bridge constructed of precast concrete spans and timber caps and piles. Developed plans and specifications for the replacement of the existing bridge with a new precast concrete slab span bridge.

Firm employed by	FORTE & TABLADA		
Name	**Levi Yantis, PE**	*Years of relevant experience with this employer*	7
Title	Project Manager	*Years of relevant experience with other employer(s)*	2
Degree(s) / Years / Specialization		BSCE / 2013 / LSU	
Active registration number / state / expiration date		42390 / LA / 09/30/2022	
Year registered	2018	*Discipline*	Civil Engineering
Contract role(s) / brief description of responsibilities		Project Engineer / Bridge Inspector	

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 time specified in the applicable MPR(s).*
02/22-Ongoing	**Ascension Parish Load Ratings – Ascension Parish, LA** – Team leader for the inspection of Ascension Parish owned bridges. Also serving as the lead load rating engineer for the bridges after inspection.
01/22-Ongoing	**Mall of Louisiana Boulevard Modified Bent Redesign – East Baton Rouge Parish, LA –** Redesigning a bent cap that had a pile misdriven during PDA. Pile load checks and a modified bent load rating were performed also.
03/18-Ongoing	**LA DOTD Retainer Contract for Off-System Bridge Load Rating – Statewide, LA** – TO1 – Led and assisted in 12 complex moveable bridge inspections and load ratings throughout the state. The bridge types included a single leaf bascule span, a vertical lift truss span, several steel vertical lift spans, multiple pontoon bridges, a steel plate girder swing bridge, a small steel truss/cable swing span, and a non-moveable steel truss. Task Order 2 – Led and supervised the load ratings of 200 off-system slab span bridges throughout the state of Louisiana. To avoid posting bridges lower than necessary, bridge inspections were done for several bridges that had severe deterioration noted in their inspection reports to collect additional deterioration measurements to accurately determine the bridge member's load carrying capacity. Task Order 5 – Load testing and refined load rating analysis of slab span bridges and culverts that previously received low or closed load postings.
03/21-10/21	**TDOT Complex and Standard Bridge Load Ratings – Statewide, TN** - Oversaw a team of load raters performing 35 AASHTOWare BrR load ratings in 4 months and was responsible for the quality control of the model inputs and outputs, troubleshooting bridge models, and assisting in load ratings. The bridge types load rated using AASHTOWare BrR software were prestressed I-beams and box girders, reinforced concrete multi-cell box bridges, reinforced concrete T-beams, continuous steel plate girders, and steel girder-floorbeam-stringer systems.
01/20-10/21	**LA DOTD Retainer for Complex In-Depth Bridge Inspections – Statewide, LA** – Served as Team Leader for the structural, mechanical and electrical in-depth inspections for multiple movable bridges. Bridge types included vertical lift span bridges and steel swing bridges (through girders and through trusses). Also served as the task manager for preparing the in-depth inspection reports. There was also a task order under this contract to perform emergency repairs on an US 71 Bridge in Shreveport, LA. Led the superstructure design for the emergency repairs.

01/20-10/21	**Florida Department of Environmental Protection (FDEP), Palatka Trail Pedestrian Bridge** - Served as lead structures designer for a two-span, 210' structure over US-601. The two-span structure includes the design of FIB concrete girders with an intermediate hammerhead pier, pile supported stub abutments and wrap-around MSE retaining walls.
01/20-12/20	**TDOT Complex Bridge Load Ratings – Statewide, TN** – This project was to load rate a total of 41 complex bridges within a short time period to help the State meet a critical FHWA Deadline. Levi was involved in the quality control process of multiple bridge load ratings.
06/16-04/20	**St. Tammany Parish Off-System Bridge Load Ratings, St. Tammany Parish, LA** – Led and assisted in bridge inspections and served as the load rating engineer for bridges throughout the parish of St. Tammany. The bridge types include slab spans, prestressed girder spans, and bridges constructed from retired railroad flatcars.
05/16-10/19	**Retainer Contract for Complex Bridge Rating, Statewide, LA- LA DOTD** – Bridge inspector and load rater for a through truss bridge over a branch of the Pearl River. The bridge consisted of 3 pony truss spans and reinforced concrete T-beams and was load rated utilizing AASHTOWare BrR, Leap Bridge Concrete and Mathcad software.
11/18-12/18	**Port of New Orleans, St. Claude Avenue Bridge Permit Load Rating, New Orleans, LA** - Performed a permit load rating for an overload vehicle to safely pass the single bascule span on St. Claude Avenue.
03/14-03/17	**LA DOTD Load Rating of On-System Bridges – Statewide, LA – LA DOTD** – Assisted in load rating of approximately 200 existing bridges across the state of Louisiana. Bridges range from slab span bridges on local roads to elevated curved steel interstate bridges in metropolitan areas.
12/17-Ongoing	**Cook Road Expansion** – Slab span superstructure and pile bent substructure design. Also assisted in the bridge plan development.
12/13-05/14	**Million Dollar Road Bridge Rating – St. Tammany Parish, LA** – Assisted in the field inspection of the bridge and carried out the structure's substructure load rating.

Firm employed by	FORTE & TABLADA		
Name	**Bradley S. Holleman, PLS, EI**	Years of relevant experience with this employer	1
Title	Senior Vice President, Survey/Advanced Measurements & Modeling	Years of relevant experience with other employer(s)	14

Degree(s) / Years / Specialization	BS /2009 / Civil Engineering
Active registration number / state / expiration date	PLS.5082 / LA / 9/30/2022
Year registered 2012 Discipline	Land Surveying
Contract role(s) / brief description of responsibilities	Surveyor

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 time specified in the applicable MPR(s).
05/12–09/12	**H.009456 – Tchefuncte River Bridge** – Surveyor-in-Charge for the topographic survey and existing drainage map. This project was for a bridge replacement over the Tchefuncte River in Tangipahoa Parish. The work consisted of completing a topographic survey, according to the LA DOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.
01/13–09/13	**H.009489 Jefferson Highway Overpass** - Surveyor-in-Charge for the bridge monitor survey, topographic survey, and existing drainage map. This project was monitoring and the overpass replacement of Jefferson Highway over Airline Highway in East Baton Rouge Parish. The work consisted of completing a topographic survey, according to the LA DOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.
07/13–10/13	**I-12 to Bush Route La 3241 Survey Control –** Surveyor-in-Charge for setting the primary static control and digital levels for future phases of the project. This project was for the construction of a new connecting route from Interstate 12 to Bush Louisiana. The work consisted of setting deep rod monuments along the proposed route and conducting over 40 miles of digital levels between the deep rod monuments.
09/13–03/14	**H.002375 Amite River Bridge Near French Settlement** – Surveyor-in-Charge for the topographic survey, 3D laser scanning and existing drainage map. This project was for constructing a new bridge over Amite River in French Settlement Louisiana to the replace the existing swing bridge. The work consisted of completing a topographic survey, according to the LA DOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.
09/14-02/15	**H.011158 LA 3139** – Surveyor-in-Charge for the topographic survey, 3D laser scanning and existing drainage map. This project was for constructing a replacement span because of a damaged girder on the LA 3139 overpass over I-10. The work consisted of completing a topographic survey, according to the LA DOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.

12/14–03/16	**H.011137 & H.011152 I-12 (LA 21 to LA 59), St. Tammany Parish, LA**– Surveyor-in-Charge for the topographic survey, 3D laser scanning and existing drainage map. This project was for widening of Interstate 12 from LA 21 to La 59 in St. Tammany Parish. The work consisted of completing a topographic survey, according to the LA DOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.
09/15-11/15	**H.011923 Hooper Road Roundabout at Sullivan Road –** Surveyor-in-Charge for the topographic survey, 3D laser scanning and existing drainage map. This project was for construction of a roundabout at Hooper Road and Sullivan Road in East Baton Rouge Parish. The work consisted of completing a topographic survey, according to the LA DOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.
06/16-02/17	**H.000263 Chef Menteur Pass Bridge** - Surveyor-in-Charge for the topographic survey, 3D laser scanning and existing drainage map. This project was for the design of new bridge to replace the existing swing bridge on US 90 over Chef Menteur Pass. The work consisted of completing a topographic survey, according to the LA DOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.
03/17-03/18	**H004987 US 190 Collins Blvd, St. Tammany Parish, LA -** Surveyor-in-Charge for the topographic survey, 3D laser scanning and existing drainage map. This project was for the design of capacity improvements on US 190 in Covington. The work consisted of completing a topographic survey, according to the LA DOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.
05/18-11/18	**I-10: Loyola Interchange Improvements, Kenner, LA** - Surveyor-in-Charge for the control survey, utility survey and 3D mobile laser scanning. This project was for the design of new exit for the New Orleans Airport. The work consisted of completing a utility and control survey, according to the LA DOTD Location and Survey Manual, including all utilities with depths that fell within the survey limits.
06/20-12/20	**4400017597 DOTD Rural Bridge Replacement** - Surveyor-in-Charge for the topographic survey. This project was for design of multiple bridge replacements throughout south Louisiana. The work consisted of completing a topographic survey, according to the LA DOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.
01/18 – 04/20	**H.004100 I-10: LA 415 to Essen Lane -** Surveyor-in-Charge for the topographic survey and 3D Mobile laser scanning. This project was for the widening design of Interstate 10 from LA 415 to Essen Lane in East Baton Rouge Parish. The work consisted of completing a topographic survey, according to the LA DOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.
04/20 – 11/20	**H.000688 US 11 Norfolk Southern RR Overpass -** Surveyor-in-Charge for the topographic survey and 3D Mobile laser scanning. This project was for the design of a new US 11 overpass over Norfolk Southern Railroad. The work consisted of completing a topographic survey, according to the LA DOTD Location and Survey Manual, including all utilities with depths and all drainage required along with finished floor elevations of all building that fall within the survey limits.

Firm employed by	FORTE & TABLADA		
Name	**Brent M. Campbell**	Years of relevant experience with this employer	8
Title	Advanced Measurements and Modeling Technician	Years of relevant experience with other employer(s)	0

Degree(s) / Years / Specialization			BS / 2013 / Construction Management
Active registration number / state / expiration date			
Year registered		Discipline	
Contract role(s) / brief description of responsibilities			Advanced Measurements and Modeling

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 time specified in the applicable MPR(s).
9/21	**Westbank Closure Complex Multi-Beam Hydrographic Survey, Belle Chasse, LA**- Utilizing a shallow draft vessel equipped with advanced multi-beam sonar equipment, Forte and Tablada performed a comprehensive survey extending bank-to-bank of the station and beyond the protection fenders for a global depiction of scour. Scour results were presented in a color ramped elevation map, as well as imagery showing the presence of debris on an intake screen. Brent served as Advanced Measurements technician for the project.
1/20 - 10/20	**H.012588, H.012169, H.012587 I-10: Atch Basin Br-W. Baton Rouge P/L, I-10: Iberville P/L-W End Miss Br, I-10: W End of Br 290-W End of LA 415- West Baton Rouge & Iberville Parishes-** AMM Technician for complete topographic survey, approximately 18.3 miles, from the East end of the Atchafalaya Bridge to the West end of the I-10/LA 415 Interchange.
10/19-10/20	**H.012485.1- Inspection of Metal Culverts- Statewide, LA**- Laser scanning technician to provide inspections and data acquisition for approximately 230 culvert locations statewide. Culvert measurements were acquired with a mixture of 3-D laser scanning, sonar, and LIDAR.
12/19 – 9/20	**H.011970- Bayou Terrebonne Bridges** – Responsible for laser scanning the Bayou Terrebonne bridge along with the entire intersection and adjacent roads.
05/19-09/19	**H.000303.6- Danziger Bridge Rehabilitation, Orleans Parish, LA**- Laser scanning and project technician for survey investigation of Danziger Bridge. Included laser scanning and comparison of actual conditions to original plans.
05/17-10/18	**H.004791.5- Belle Chasse Bridge and Tunnel Replacement Hydrographic Survey- Plaquemines Parish, LA**- Responsible for laser scanning for the Belle Chase Bridge and Tunnel Replacement project for LA DOTD. Included in this work was a survey performed utilizing traditional methods, terrestrial laser scanning of roadway surfaces, and multi-beam 3-D hydrographic surveying.

11/19 – 12/20	**H.012083- Calcasieu River Bridge Investigation, Calcasieu Parish, LA-** Laser scanning and project technician to provide laser scanning services for the I-10/Lake Calcasieu bridge in Lake Charles, LA. Terrestrial scans were done underneath the bridge for 10 spans on the East and West side, on top the deck to capture the superstructure, as well as from the water below to capture the sub structure. In addition to the terrestrial scans, mobile Lidar was done for future planning.
1/22- Ongoing	**Hat Creek Permit Survey, Bossier Parish, LA**- Advanced Measurements technician for UAV based aerial LiDAR and hydrographic surveys to provide plan and profile plans for permitting purposes. The project included flying approximately 200 acres on the Red River to provide a bare earth model to our engineers. This method allowed us to rapidly capture survey grade data versus traditional survey methods. A hydrographic survey of the Red River was performed using a sonarmite mounted on a shallow water vessel due to the low levels of the river. This hydrographic survey data was also provided to our engineers where it was integrated with the aerial LiDAR to provide the client with plan and profile plans for permit applications.
10/21- Ongoing	**Merryville Aerial LiDAR, Beauregard Parish, LA** – Advanced Measurements technician for UAV based aerial LiDAR to quickly capture the site topography. The project included flying approximately 175 acres in Merryville, LA to provide a bare earth model to our engineers. Due to the projects tight schedule constraints, we were able to do an initial topo survey of the site in a single day, then produce a surface model and contours for our engineers two days later. The surface model was used for preliminary site design and drainage flow characteristics.
11/18-04/19	**LA 327 Spur: Staring Lane Ext. Route LA 327-S- East Baton Rouge Parish, LA**- Responsible for laser scanning between the intersections of La 42 (Burbank Dr.) and Staring Ln. and La 327 (Gardere Ln.) and La 30. Topographic survey including all utilities with depths and all drainage was required, along with finish floor elevations of all buildings that fall within survey limits.
02/17-03/18	**H.010753.5 – US 90 / I-310 Interchange – St. Charles Parish, LA – LA DOTD** – Project Technician responsible for topographic surveying and 3-D laser scanning at the intersection of US90 and I-310 in St. Charles Parish. This project will allow improvements for safety and efficiency. The complete topographic survey includes all utilities with depths and all drainage required along with finish floor elevations of all buildings that fall within the survey limits.
8/14-Ongoing	**H.004273.5 -I-49 Connector – Lafayette Parish, LA – LA DOTD** – Responsible for laser scanning 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 laser scanning services for much of the congested corridor as a means to obtaining topographic data without endangering surveyors.
01/13-12/13	**H.009933 MacArthur Interchange Project Phase 1B – Orleans Parish, LA – LA DOTD** – Responsible for laser scanning general areas in support of topographical survey including location and elevation surveys, for redundancy and volume.
01/13-03/13	**H.009250 I-10 (Highland to LA 73) – East Baton Rouge and Ascension Parishes, LA – LA DOTD** – Responsible for laser scanning of several bridges overpassing I-10 and extracting/coding survey coordinates and alignments. Also determined minimum horizontal and vertical clearances.
03/13-07/15	**H.004698 Almonaster Avenue Lift Bridge – Orleans Parish, LA – LA DOTD** – Responsible for laser scanning of Almonaster lift bridge and determination of various bridge geometrics and counterweight volume based on scan data. Provided 2-D plan geometry and elevations, as well as coded survey data. Used scanning to perform rail survey for inaccessible areas.

Firm employed by FORTE & TABLADA			
Ross A. Wilson, PLS		Years of relevant experience with this employer	10
Surveyor		Years of relevant experience with other employer(s)	2
Degree(s) / Years / Specialization		B.S. / 2010 / Geomatics	
Active registration number / state / expiration date		5148 / LA / 03/31/2022	
Year registered	2015\	Discipline	Land Surveying
Contract role(s) / brief description of responsibilities		Surveyor	

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 time specified in the applicable MPR(s).
04/21-06/21	H.014628- LA 397: Turn Lanes at Rice Mill - Surveyor responsible for topographic surveying at the intersection of LA 397 and Joe Spears Rd. in Calcasieu Parish.
8/19-On going	H.011670-I-10/Loyola Interchange Improvements- Kenner, LA- Project Manager providing Topographic Survey, Right- of-Way Survey, and Drainage Survey. The project stretches from the levee in Kenner to the Williams Blvd. off ramp, as well as Loyola Avenue and portions of Veterans Blvd.
6/20 - Ongoing	H.013979, H.013995, H.013992, H.013994, H.013985, H.013954, H.013990- Rural Bridge Replacement Initiative; 7 State Projects Numbers (22 Structures) in Districts 04, 05, 08 and 58 – Surveyor for topographic surveying of 22 bridges.
1/20 - 10/20	H.012588, H.012169, H.012587 I-10: Atch Basin Br-W. Baton Rouge P/L, I-10: Iberville P/L-W End Miss Br, I-10: W End of Br 290-W End of LA 415- West Baton Rouge & Iberville Parishes- Project Manager for complete topographic survey, approximately 18.3 miles, from the East end of the Atchafalaya Bridge to the West end of the I-10/LA 415 Interchange.
11/19 – 12/20	H.012083- Calcasieu River Bridge Investigation, Calcasieu Parish, LA- Surveyor to provide laser scanning services for the I-10/Lake Calcasieu bridge in Lake Charles, LA. Terrestrial scans were done underneath the bridge for 10 spans on the East and West side, on top the deck to capture the superstructure, as well as from the water below to capture the sub structure. In addition to the terrestrial scans, mobile Lidar was done for future planning.
12/19 – 9/20	H.011970- Bayou Terrebonne Bridges – Surveyor for the Bayou Terrebonne bridge along with the entire intersection and adjacent roads.
11/18-04/19	LA 327 Spur: Staring Lane Ext. Route LA 327-S- East Baton Rouge Parish, LA- Project Manager for a topographic survey for this project which is located in East Baton Rouge Parish, in between the intersections of La 42 (Burbank Dr.) and Staring Ln. and La 327 (Gardere Ln.) and La 30. A complete Topographic survey including all utilities with depths and all drainage was required, along with finish floor elevations of all buildings that fall within the survey limits.
05/17-10/18	H.004791.5- Belle Chasse Bridge and Tunnel Replacement Hydrographic Survey- Plaquemines Parish, LA- Surveyor for comprehensive topographic surveying services for the Belle Chase Bridge and Tunnel Replacement project for LA

	DOTD. Included in this work was a survey performed utilizing traditional methods, terrestrial laser scanning of roadway surfaces, and multi-beam 3-D hydrographic surveying.
01/18-6/19	H.004100- I-10 (LA 415 to Essen Lane on I-10 and I-12)- East and West Baton Rouge Parishes- LA DOTD- Project Manager for topographic survey of the work between LSU lakes and Essen Lane.
02/17-03/18	H.010753.5- US 90 / I-310 Interchange, St. Charles Parish, LA- Surveyor responsible for topographic surveying and 3-D laser scanning at the intersection of US-90 and I-310 in St. Charles Parish.
8/14-Ongoing	H.004273.5 – I-49 Connector – Lafayette Parish, LA – LA DOTD – Survey Manager responsible for providing topographic 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 laser scanning services for much of the congested corridor as a means to obtaining topographic data without endangering surveyors.
03/13-07/15	H.004698 – Almonaster Avenue Lift Bridge – Orleans Parish, LA – LA DOTD – Survey Manager responsible for performing topographic and property surveys, developing a drainage map, establishing existing right-of-way for the north line of I- 10, Almonaster Avenue, and CSX Railroad property, and establishing elevations to develop a Digital Terrain Model with widths matching the limits of the topographic survey.
10/18-02/19	H.012343 Sunshine Bridge Repair- Surveyor responsible for establishing control on and near the Sunshine Bridge to use survey and laser scanning methods to monitor the damage on the bridge. This project included utilizing LiDAR data.
06/19–09/19	H.000303.6- Danziger Bridge Repair, Orleans Parish, LA- Surveyor for Topographic and Monitoring survey and laser scanning of Danziger bridge. This survey is necessary due to damage of joints, deck, and girder ends of the fixed spans on both sides of the bridge. This project included utilizing LiDAR data.
1/12 – 12/20	H.012308- Cook Road Improvements, Livingston Parish, LA – Surveyor for Topographic and Right-of-Way surveys for this project that designed improvements to an existing section of two lane roadway and an unimproved area with the construction of a four (4) lane boulevard section from LA Hwy 16 (Pete's Hwy) to LA Hwy 1026 (Juban Road), along with several bridges.
5/17 – 10/17	H.013052- LA 442 Tangipahoa River Bridge Replacement, Tangipahoa Parish, LA- Surveyor to provide topographic surveying for the LA 442 bridge over the Tangipahoa River. The survey included numerous cross-section surveys upstream and downstream of the bridge, as well as the along the bridge fascia.
01/13-03/13	H.009250 – I-10: Highland Road to LA 73 – East Baton Rouge and Ascension Parishes, LA – LA DOTD – Survey Manager for the topographic survey of approximately 7.0 miles to widen the interstate.
10/13-10/14	H.002365.5 – LA 63: Bridges near Bluff Creek – East Feliciana Parish, LA – LA DOTD – Provided topographic surveys in preparation for bridge replacements with drainage structures along three portions of the existing highway including utility location and depths. Finished floor elevations of all buildings that fall within the survey limits were determined.

Firm employed by FORTE & TABLADA				
Name	Spencer Rimes		Years of relevant experience with this employer	1
Title	Senior Advanced Measurements Technician		Years of relevant experience with other employer(s)	12
Degree(s) / Years / Specialization			Louisiana State University / Master of Landscape Architecture – GIS / 2009 Louisiana Tech University / Bachelor of Science - Horticulture / 2005	
Active registration number / state / expiration date			N/A	
Year registered		Discipline	N/A	
Contract role(s) / brief description of responsibilities			Senior Advanced Measurements Technician	

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 time specified in the applicable MPR(s).
Spencer Rimes is a GIS/Data Analyst with 12 years of experience. He graduated from Louisiana State University with a degree in Landscape Architecture with a GIS concentration. He has experience in ArcGIS, Autocad, Microstation and Inroads Survey, Adobe Creative Suite, as well as hydrographic mapping software.	
6/13-4/14	**USACE Levee Inspections – Louisiana, Texas, and Illinois –** GIS Specialist for levee system inspections. The work consists of manual inspection using a GPS-enabled tablet, recording all deficiencies and creating advanced reports, photo logs and detailed maps with their associated quality ratings.
5/14-8/15	**Strategic Sites Inventory Program – Statewide –** Site planning and design consultant for Louisiana Economic Development. The program consists of identifying development-ready sites and accelerating the availability of those sites for industrial and commercial development.
11/15-3/16	**LA 327 – Gardere Lane Topographic Survey – Baton Rouge, LA –** GIS Analyst for topographic survey of drainage features and development of the existing drainage map using a combination of field-collected data and LiDAR imagery.
1/18-6/19	**LA 415 to Essen Lane Topographic Survey – Baton Rouge, LA –** GIS Analyst for topographic and drainage survey. The work consists of field data collection of features and attributes utilizing an imaging laser scanner and creating the overall drainage network using a combination of as-built drawings and field-collected data.
9/20-5/21	**LADOTD Hydrographic Bridge Surveys – Statewide –** Technical lead for multibeam surveys related to bridge scour analysis. The work consists of hardware calibration, data collection, and post-processing of survey data.
9/21	**Westbank Closure Complex Multi-Beam Hydrographic Survey** - Served as a technical lead for the comprehensive multibeam hydrographic scour survey.

Firm employed by KTA-Tator, Inc.			
Name	James A. Kretzler	Years of relevant experience with this employer	9
Title	Supervisor-Other (ASNT Level III)	Years of relevant experience with other employer(s)	14
Degree(s) / Years / Specialization			
Active registration number / state / expiration date		ASNT Level III MT, PT, RT, UT (#186946, expiration 10/2025) AWS Certified Welding Inspector (#07020431, expiration 02/01/2025) NACE Coatings Inspector CIP Level 1 (#54804, expiration 09/30/2023)	
Year registered	Discipline		
Contract role(s) / brief description of responsibilities		ASNT Level III to establish techniques, procedures, methods, etc. for performing NDE inspections (meets MPR 3d)	

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 time specified in the applicable MPR(s).
07/15 – Present	**NDE Department Manager** – Mr. Kretzler is managing the NDE Department of the KTA Steel and Concrete Group. He has financial and operational responsibilities along with business development, hiring and training for non-destructive examination services. He is providing Level III services internally for KTA and externally for clients that includes writing and reviewing NDE procedures and certifying NDE technicians. He is also providing NDE training services for Level II Magnetic Particle, Level II Dye Penetrant inspection as well as Ultrasonic Level I and Level II classes covering UT thickness, straight beam, and angle beam inspections.
10/21 – 10/21	**North Dakota Department of Transportation** – As a subconsultant to Fickett Structural Solutions, Mr. Kretzler was the KTA project manager for Phased Array Ultrasonic Testing (PAUT) on various bridges throughout North Dakota.
03/16 – 05/16	**I-10 Calcasieu Bridge, Baton Rouge, LA** – As a subconsultant to HNTB, Mr. Kretzler supervised the UT inspection of the bridge pins on this structure. He reviewed the inspection data and issued an opinion regarding the condition of the pins.
06/15 – 12/19	**New York State Department of Transportation, Albany, NY** – As the prime consultant, Mr. Kretzler was the KTA project manager for CWI/NDT and coating inspection services during the fabrication of bridge girders at various shop locations. KTA also provided material sampling services for flat bar and rebar and verifying welding tests in accordance with NYSDOT standards.
12/12 – Present	**Connecticut Department of Transportation, Newington, CT** – As the prime consultant on three consecutive multi-year statewide contracts, Mr. Kretzler was and is the KTA project manager for steel and concrete fabrication and coatings inspection services at various shop locations.

12/12 – 07/15	**Pennsylvania Department of Transportation** – Mr. Kretzler was a KTA Supervisor overseeing the inspection responsibilities of QA inspectors on bridge fabrication in various shops through Pennsylvania and Ohio. He reviewed NDE procedures and completed site audits on NDE technicians and oversaw all NDE activities on various projects.
06/08 – 12/12	As an employee of A&A Consultants, Mr. Kretzler provided NDE and CWI services to three inspection consultant companies, conducted inspections for Pennsylvania Department of Transportation bridge projects involving girders, cross frames, and tooth dams. Managed and trained a staff of 9 inspectors.
05/08, 12/09, 01/10	As an employee of A&A Consultants, Mr. Kretzler performed various inspections for the North Shore Connector Project in Pittsburgh, PA. He performed visual and dye penetrant weld examinations for a temporary bridge and shoring on Tony Dorset Drive spanning the "cut and cover" portion of the light rail system (served as A&A Consultants' Structural Steel Inspection Supervisor). Mr. Kretzler also provided inspections of 30 light poles for this project at Jett Industries, Ellwood City, Pennsylvania in December 2009, and completed MT/VT inspection of splice plate welds on retailing wall pilings and smoke wall rebar in January 2010.

Firm employed by KTA-Tator, Inc.			
Name	Robert S. Lanterman	Years of relevant experience with this employer	16
Title	Supervisor-Other	Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization	BE/1999/Chemical Engineering		
Active registration number / state / expiration date	SSPC Certified Protective Coatings Specialist (#2015-820-136, expiration 12/31/2023) NACE Certified Coatings Inspector Level 3 (#13505, expiration 05/23/2025)		
Year registered		Discipline	
Contract role(s) / brief description of responsibilities	Coatings Consultant – coating condition assessment services		

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 time specified in the applicable MPR(s).
09/21 - Present	**IWGO Bridge, Baton Rouge, LA** – As a subconsultant to TRC, Mr. Lanterman is performing a coating condition assessment and assisting with the development of surface preparation, coating application, and environmental/ worker protection and containment specifications/drawing notes for the rehabilitation of this bridge.
07/20 – 08/20	**Denison Harvard Bridge, Cleveland, OH** – As a subconsultant to Michael Baker International, Mr. Lanterman performed a coating condition assessment, supervised coatings laboratory testing, developed a maintenance painting strategy, provided recommendations, and developed an opinion of probable costs for the maintenance painting of this bridge.
02/20 – 05/20	**Jackson Street (Red River) Lift Bridge, Alexandria, LA** – As a subconsultant to Gresham, Smith & Partners, Mr. Lanterman performed a coating condition assessment (visual examination, coating thickness and adhesion measurements, substrate examination, and coating sample procurement), supervised coatings laboratory testing, and prepared a report with recommendations for the rehabilitation of the coating system on this bridge.
02/18 – 06/19	**Walt Whitman Bridge NJ Approach Spans** – As a subconsultant to AECOM, Mr. Lanterman provided project engineering/coating consulting services for KTA on this project involving a coating condition assessment to determine the condition of the existing coatings on the structures in order to develop future maintenance painting strategies for each structure. KTA also conducted a Relative Risk Characterization that focused on the relative impacts to the environment, the public, and adjacent workers resulting from the proposed surface preparation activities.

10/18 – 03/19	**Kootenay River Bridge, Creston, BC, Canada** – As a subconsultant to McElhanney Consulting Services Ltd., Mr. Lanterman performed a coating condition assessment (visual examination, coating thickness and adhesion measurements, substrate examination, and coating sample procurement), supervised coatings laboratory testing, and prepared a report with recommendations for the rehabilitation of the coating system on this bridge.
09/18 – 12/18	**Argentia Newfoundland Ferry Dock Transfer Bridge, Newfoundland, Canada** – As a subconsultant to CBCL Limited, Mr. Lanterman performed a coating condition assessment, supervised coatings laboratory testing, and developed recommendations for future maintenance painting of the structural steel end span of this bridge.
07/17 – Present	**Benjamin Franklin Bridge, Philadelphia, PA** – As a subconsultant to HNTB, Mr. Lanterman is providing project engineering/coating consulting services for KTA on this project involving a coating condition assessment of the bridge to determine the condition of the existing coatings on the structure to develop a future maintenance painting strategy. Additional services include providing contractor containment and paint submittal review services for the maintenance painting and steel repair work on this bridge.
06/17 – 06/19	**Walt Whitman Bridge Corridor - PA Approach** – As a subconsultant to AECOM, Mr. Lanterman provided project engineering/coating consulting services for KTA on this project involving a coating condition assessment to determine the condition of the existing coatings on the structures in order to develop future maintenance painting strategies for each structure. KTA also conducted a Relative Risk Characterization that focused on the relative impacts to the environment, the public, and adjacent workers resulting from the proposed surface preparation activities.
03/17 – 05/17	**US 90 Morgan City Bridge and Nearby Structures, Morgan City, LA** – As a subconsultant to HNTB, Mr. Lanterman performed a coating condition assessment, supervised coatings laboratory testing, and prepared a report with recommendations for the rehabilitation of the coating system on this bridge.
02/17 – 03/17	**I-310 Luling Bridge, Luling, LA** – As a subconsultant to HNTB, Mr. Lanterman performed a coating condition assessment of the weathering steel towers and girders and prepared a report detailing the conditions found and providing recommendations for the remediation of the corrosion problems.
09/16 – 12/16	**South Street Viaduct, New York City (Manhattan), NY** – As a subconsultant to HDR Engineering, Mr. Lanterman performed a coating condition assessment, supervised coatings laboratory testing, and prepared a report with recommendations for the rehabilitation of the coating system on this bridge.
03/13 – 11/17	**Commodore Barry Bridge, Chester, PA** – As a subconsultant to AECOM, Mr. Lanterman provided project engineering/coating consulting services for this bridge and associated structures (Ramp AC, Ramp BC, SR130 Overpass) to determine the condition of the existing coatings along with providing recoating recommendations. KTA also provided specification review and EH&S services for all structures.

(Add rows as need)

Firm Employed By: Stanley Consultants, Inc.				
Name:	Blake Roussel, PE, PMP		**Years of relevant experience with this employer:**	14
Title:	Project Principal		**Years of relevant experience with other employer(s):**	5
Degree(s) / Years / Specialization:			BS / 2003 / Civil Engineering	
Active Registration Number / State / Expiration Date:			PE.33279 / LA / 03-31-2023	
Year Registered:	2007	**Discipline:**	Civil Engineering	
Contract role(s) / brief description of responsibilities:			Mr. Roussel will serve as Project Principal on this contract, leading our team's overall contract management, resource allocation, Quality Assurance (QA)/Quality Control (QC) processes, client needs, and attending meetings as necessary. Prior to joining Stanley Consultants, Mr. Roussel gained valuable transportation experience while employed by DOTD which he will use to focus and direct our team into a successful completion of this contract.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
	**Mr. Roussel**'s relevant experience includes serving as Project Manager and Senior Transportation Engineer providing project oversight; overseeing project schedules and cost analysis; overall supervision of subconsultants and in-house engineers performing the survey, design, and plan preparation; coordination with the owner and stakeholders; QA/QC; checking compliance with design criteria; and completing all required forms and documents in support of the plan package. His design experience includes geometrics, earthwork, drainage, utilities relocation, traffic control, quantities computations, cost estimating, preparation of final contract documents, development of three-dimensional roadway models, and roadway design using MicroStation.
01/17–09/20	**Bootlegger Road Mill and Overlay and Bootlegger Road Bridge Design, St. Tammany Parish, LA; St. Tammany Parish Government:** Serving as Project Principal, Mr. Roussel was responsible for resource allocation, overall project performance, and tending to client needs as they arise. Scope of work included approximately 3-miles of mill and overlay, bridge replacement over Timber Branch Creek, and a shared-use path connecting LA 1077 to LA 21.
05/19–07/20	**LA 117 Between LA 8 and LA 118 Bridge Study, Statewide LA; DOTD/Buchart Horn, Inc.:** Mr. Roussel was transitioned into the project management role during the project execution phase. His responsibilities included monitoring adherence to the scope of work, budget, and schedule. Mr. Roussel coordinated with the

	prime consultant regarding scope, schedule, budget, and invoicing. Additionally, he performed QA/QC on project deliverables. As a sub-consultant the Stanley Consultants scope of work included evaluation and concept plan productions for bridge alternatives for five bridges along the LA 117 corridor located in Vernon Parish to tie-in to new roadways.
09/16–05/21	**I-12, LA 21 to US 190 Widening Design, St. Tammany Parish, LA; DOTD:** Serving as Project Principal, Mr. Roussel was responsible for overall contract management, resource allocation, Quality Assurance (QA)/Quality Control (QC) processes, client needs, and attending meetings as necessary. Additional responsibilities included QC of plans, project coordination, and scheduling.
06/18–01/21	**US 61: Bluebonnet Blvd to S. End US 190, Baton Rouge, LA; DOTD:** As Project Manager, Mr. Roussel was responsible for the overall supervision of engineers performing the survey, road design and plan preparation; coordination with the owner; reviewing the plans; checking compliance with the design criteria; and completing all required forms and documents in support of the plan package. Stanley Consultants was contracted by the DOTD to perform engineering design services to mill and overlay US 61 (Airline Highway) from its intersection with Bluebonnet Blvd to the US 190 Overpass.
06/15 – Ongoing	**LA 675 & LA 87 Improvements, New Iberia, LA; DOTD:** Serving as Project Manager, Mr. Roussel is responsible for the overall supervision of engineers performing the survey, road design and plan preparation; coordination with the owner; reviewing the plans; checking compliance with the design criteria; and completing all required forms and documents. The project includes installation of a parallel subsurface drainage trunkline to reduce frequent street and area flooding. The project also requires roadway reconstruction and mill and overlay of existing pavement.

Firm Employed By: Stanley Consultants, Inc.			
Name:	Adam Fields, PE	**Years of relevant experience with this employer:**	4
Title:	Senior Transportation Engineer	**Years of relevant experience with other employer(s):**	12
Degree(s) / Years / Specialization:		BS /2005 / Civil Engineering	
Active Registration Number / State / Expiration Date:		PE.35614 / LA / 09-30-2022	
Year Registered:	2010	**Discipline:**	Civil Engineering
Contract role(s) / brief description of responsibilities:		Mr. Fields will serve as Lead Road Design Engineer responsible for roadway design, maintenance of traffic, and suggested sequence of construction plans (MOT). Adam's experience performing complex MOT will be utilized on this contract.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
	Mr. Fields has 16 years of specialized transportation design experience for local roads, state highways and interstate highways. His experience includes development of traffic control and staging plans; roadway alignment studies; development of horizontal and vertical geometrics; typical sections; intersection details; roadway drainage calculations, earthwork design; roadside safety features and development of quantities, technical specifications, and construction cost estimates. He is skilled in development of three-dimensional roadway models and roadway design utilizing MicroStation and lnRoads software. Mr. Fields will implement his experience developing suggested sequence of construction plans in a lead road design engineer role for this project.
01/14-10/16	**IDIQ for Bridge Inspection Services, LA; DOTD** H.013076 US 90 Over I-10: Lockmoor Flyover; US EB at I-10, Calcasieu Parish, LA; DOTD H.011494 US 90 Over Atchafalaya River; US 90 at LA 182; St. Mary Parish, LA; DOTD H.009630 Ted Hickey Bridge Inspection; Leon C. Simon Boulevard, Orleans Parish, LA; DOTD H.013052 LA 442 Emergency Bridge Replacement, Tangipahoa Parish, LA: DOTD H.013052 US 90 Over LA 14: US 90 at LA 14; Iberia Parish, LA; DOTD Serving as roadway engineer, Mr. Fields was responsible for implementing maintenance of traffic while bridge inspections and repairs were under construction into the plans for numerous task orders under this IDIQ contract for Bridge Inspection Services. He designed suggested sequence of construction according to DOTD standards including temporary signing and striping plans and quantities, detours and alternate route plans, temporary

	sections, and general sequencing notes. Also designed roadway components for bridge design contracts as necessary.
09/16–05/21	**I-12, LA 1077 to US 190 Widening Design, St. Tammany Parish, LA; DOTD:** Serving as Roadway Engineer, Mr. Fields was responsible for horizontal and vertical alignment, typical sections, sequence of construction with temporary traffic control layout and striping according to DOTD specifications, standards, and design criteria. Design tools used for this project included MicroStation with CadConform, Bentley InRoads and Microsoft Excel. Stanley Consultants performed roadway design, modeling, DOTD formatting, and CADConform compliance. The DOTD requested an expansion of the project that included the addition of the auxiliary lane to the exit inclusive of the roadway widening two lane ramps.
04/17–05/21	**LA 30 Roundabouts at Tanger & I-10, Ascension Parish, LA; DOTD:** Serving as Roadway Engineer, Adam was responsible for providing oversight for all necessary engineering and related services required for the design of four multi-lane roundabouts along LA 30 at the heavily traversed commercial interchange at I-10 in Gonzales, LA. Mr. Fields also provided MOT design, QA of typical sections, pedestrian and bicycle design, roadway geometrics, roundabout geometrics, drainage design, and driveway details for this DOTD Project. This project scope involves engineering and related services to develop construction plans for a reconstruction of LA 30 from near Isom Sanders Rd. to Veterans Boulevard.
04/17–09/21	**US 171 at Boone St., DOTD, Vernon Parish, LA; DOTD:** Serving as Lead Roadway Design Engineer, Mr. Fields was responsible for plan development, engineering design of sequence of construction and maintenance of traffic, temporary typical sections, temporary pavement markings and minimum construction signing, erosion control plans and permanent pavement marking and signing layout according to DOTD minimum design guidelines and standards.

Firm Employed By: Stanley Consultants, Inc.					
Name:	Jesse Tisdale, PE		**Years of relevant experience with this employer:**	3	
Title:	Senior Civil Engineer		**Years of relevant experience with other employer(s):**	6	
Degree(s) / Years / Specialization:			BS / 2013 / Civil Engineering		
Active Registration Number / State / Expiration Date:			PE.40972 / LA / 03-31-2023		
Year Registered:	2016	**Discipline:**	Civil Engineering		
Contract role(s) / brief description of responsibilities:			Mr. Tisdale will serve as Project Manager for this contract, responsible for providing oversight on all aspects of engineering design and related services including roadway design, signing, and striping, maintenance of traffic, and suggested sequence of construction plans (MOT). Mr. Tisdale has TCT and TCS certifications.		
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 time specified in the applicable MPR(s).				
	Mr. Tisdale has nine years of relevant transportation experience. He will lead the Stanley Consultants' design team with a focus on the coordination of all design elements and the production of a high-quality, biddable set of plans and construction documents. He is well suited for this assignment having completed the design and roadway construction plan preparation for numerous major local roads, state highways and interstate highway projects designed to DOTD specifications and standards. His projects have involved both asphalt and concrete roadways and have encompassed new boulevard typical roadway sections, new alignments, realignments, reconstruction and widening and intersection improvements.				
09/16–05/21	**I-12: LA 21 to US 190 & I-12: LA 1077 to LA 21, St. Tammany Parish, LA; DOTD:** Serving as Project Manager, Jesse was responsible for assisting and overseeing the horizontal and vertical alignment design, drainage design, and sequence of construction with minimum temporary traffic control layout and striping according to DOTD specifications, standards, and design criteria. His additional responsibilities include standard project manager duties including coordination, QC of plans and design, project coordination and scheduling. Design tools used for this project included MicroStation, Inroads, CADConform, Bentley InRoads, DOTD HydrWIN and Microsoft Project.				

04/17–09/21	**US 171 at Boone St. Roundabout, Vernon Parish, LA; DOTD:** Serving as Project Manager, Mr. Tisdale was responsible for assisting the design of a three-legged multi-lane roundabout and multiple intersection improvements along US 171. Tasks also included, budgeting, project cost estimation, utility coordination, and QA for the design and construction plans. This project involved engineering and related services to develop construction plans for a multi-lane (Hybrid) roundabout at the intersection of US 171 and Boone Street to allow for improvements to safety and efficiency, while utilizing best access management practices along the corridor.
04/17–05/21	**LA 30 Roundabouts at Tanger & I-10, Ascension Parish, LA; DOTD:** Serving as Deputy Project Manager/Lead Design Engineer then transitioning into the Project Manager role, Mr. Tisdale was responsible for providing oversight for all necessary engineering and related services required for the design of three multi-lane roundabouts along LA 30 at the heavily traversed commercial interchange at I-10 in Gonzales, LA. He also provided QA of typical sections, pedestrian and bicycle design, roadway geometrics, roundabout geometrics, drainage design and driveway details for this project.
04/16–01/18	**Dijon Drive Extension Phase I & II, East Baton Rouge Parish, LA Confidential Client:** Served as Project Manager/Lead Designer, responsible for a proposed four-lane divided highway project between Essen Lane and Bluebonnet Boulevard. Project management responsibilities included budget coordination with local, city and state agencies, design and construction scheduling, coordination to prevent conflict from major construction in the surrounding areas and coordinating subsurface drainage. Design responsibilities included the geometric roadway design, roadway modeling and overseeing drainage design.
11/16–12/17	**LA 30: South Blvd. to W. Chimes, Baton Rouge, LA; DOTD:** Project Manager and lead designer responsible for the preliminary design, preliminary plan development and planning coordination of the project. The overall project included pavement patching, full curb replacement, re-establishment of the grass medians, additional drainage, access management implementation, addition of pedestrian facilities, relocation of the existing I-10 Nicholson ramp termini, and a complete asphalt overlay on 1.5 miles of Nicholson Drive. This project included the addition of drainage to a complicated and limited existing drainage system.

Firm Employed By: Stanley Consultants, Inc.					
Name:	Jared Blohowiak, EI			**Years of relevant experience with this employer**	3
Title:	Engineer-In-Training 2			**Years of relevant experience with other employer(s)**	1
Degree(s) / Years / Specialization:			BS / 2017 / Civil Engineering		
Active Registration Number / State / Expiration Date:			EI.33683 / LA / 09-30-2022		
Year registered:	2018	**Discipline:**	Civil Engineering		
Contract role(s) / brief description of responsibilities:			Jared will be responsible for roadway design, signing and striping, and quantity tabulation of materials and services required. Jared has his TCT, TCS and Flagger certifications.		

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 time specified in the applicable MPR(s).
	Jared has worked on DOTD and USACE projects under the oversight of professional engineers. His responsibilities include road design, the design of guard rails, design of site plans, and quantity tabulation of materials and services required for a project. He is often responsible for detailed corrections and adjustments to plan sets and ensuring plan sets are following DOTD specifications and standards.
01/17 – 09/20	**Bootlegger Road Mill & Overlay, Bridge Design, St. Tammany Parish, LA; St. Tammany Parish Government:** Serving as Engineering Intern, Jared was responsible for assisting with quantity calculations for this project.
09/16 – 05/21	**I-12, LA 21 to US 190 Widening Design, St. Tammany Parish, LA; DOTD:** Serving as Engineer Intern, Jared was responsible for assisting with drafting of typical section sheets, quantity tables, guardrail layout designs, plan/profile sheets, signing and striping sheets using CADConform and MicroStation. Responsible for designing guardrail layouts and quantity calculations. Also assisted with the development of cost estimates. Responsible for following the Stanley Consultants QA/QC Plan.

06/15 – 02/21	**LA 675 and LA 87 Improvements, New Iberia, LA; DOTD:** Serving as Engineer Intern, Jared was responsible for assisting with the drafting of geometric layout sheets, detour signing and map, temporary benchmarks, pavement marking sheets and additional detail sheets. His additional responsibilities include assisting with developing cost estimates and providing a summary of drainage structures tables and quantity calculations.
04/17 – 05/21	**LA 30 Roundabouts at Tanger & I-10, Ascension Parish, LA; DOTD:** Serving as Engineer Intern, Jared was responsible for assisting with drafting of plan/profile sheets, drainage plan/profile sheets, geometric layout sheets, sequence of construction sheets and pavement marking sheets. His additional responsibilities included review of existing drainage maps, design drainage maps, providing a summary of drainage structures tables and assisting with quantity calculations and cost estimates.
06/18 – 02/20	**LA 1, Iberville, Port Allen Canal Misc. Pavement Preservation, West Baton Rouge Parish, LA; DOTD:** As Engineer Intern, Jared was responsible for assisting with topographic survey field work. He assisted with the drafting of typical section sheets, quantity tables, guardrail layouts, miscellaneous detail sheets using MicroStation and performing quantity calculations. Responsible for following the Stanley Consultants QA/QC Plan.
03/17 – 09/21	**LA 67: EBR P/L to 8 Miles North of EB, East Feliciana Parish, LA; DOTD:** Serving as Engineer Intern, Jared is responsible for assisting with topographic survey field work. He assisted with the drafting of typical section sheets, quantity tables, guardrail layouts, miscellaneous detail sheets using MicroStation, and performed quantity calculations. Jared also assisted with the development of cost estimates and is responsible for following the Stanley Consultants QA/QC Plan.
06/18 – 12/20	**US 61: Bluebonnet Blvd to S. End US 190, Baton Rouge, LA; DOTD:** Serving as Engineer Intern, Jared was responsible for assisting with topographic survey field work. He assisted with the drafting of typical section sheets, quantity tables, guardrail layouts, miscellaneous detail sheets using MicroStation, and performed quantity calculations. Jared also assisted with the development of cost estimates and is responsible for following the Stanley Consultants QA/QC Plan.

Firm Employed By: Stanley Consultants, Inc.			
Name:	Kayla Lafitteau, EI	**Years of relevant experience with this employer**	3
Title:	Engineer-In-Training 1	**Years of relevant experience with other employer(s)**	0
Degree(s) / Years / Specialization:		--	
Active Registration Number / State / Expiration Date:		EI.34158/ LA / 03-31-2022	
Year registered:	2018 **Discipline:**	Civil Engineering	
Contract role(s) / brief description of responsibilities:		Kayla will be responsible for roadway design, signing and striping, and quantity tabulation of materials and services required. Kayla has her TCT, TCS and Flagger certifications.	

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 time specified in the applicable MPR(s).
	Kayla's experience includes working on DOTD and City of New Orleans projects under the oversight of professional engineers. Kayla has been responsible for detour signing, permanent pavement markings, geometric layout and guard rail design. She prepares quantity calculations, cost estimates, and is proficient in MicroStation and AutoCAD. Kayla is often responsible for detailed corrections and adjustments to plan sets to ensure they are compliant DOTD specifications and standards.
09/16 – 05/21	**I-12, LA 21 to US 190 Widening Design, St. Tammany Parish, LA; DOTD:** As Engineer Intern, Kayla was responsible for assisting with drafting of typical section sheets, pavement marking sheets, and plan/profile sheets. Responsible for assisting with quantity calculations, guard rail design and developing a cost estimate. Responsible for following the Stanley Consultants QA/QC Plan.
06/15 – 02/21	**LA 675 and LA 87 Improvements, New Iberia, LA; DOTD:** Serving as Engineer Intern, Kayla was responsible for assisting with the drafting of geometric layout sheets, detour signing and map, temporary benchmarks, pavement marking sheets and additional detail sheets. Kayla also assisted with developing cost estimates, summary of drainage structures tables, and quantity calculations. Responsible for following the Stanley Consultants QA/QC Plan.

04/17 – 05/21	**LA 30 Roundabouts at Tanger & I-10, Ascension Parish, LA; DOTD:** Serving as Engineer Intern, Kayla was responsible for assisting with drafting of plan/profile sheets, drainage plan/profile sheets, geometric layout sheets, sequence of construction sheets and pavement marking sheets. Her additional responsibilities included review of existing drainage maps, design drainage maps and summary of drainage structures tables. Kayla also assisted with quantity calculations and cost estimates. Responsible for following the Stanley Consultants QA/QC Plan.
06/18 – 02/20	**LA 1, Iberville, Port Allen Canal Misc. Pavement Preservation, West Baton Rouge Parish, LA; DOTD:** Serving as Engineer Intern, Kayla was responsible for assisting with topographic field work. She assisted with quantity calculations, guard rail design and additional detail sheets. Additionally, Kayla assisted with developing the cost estimate and summary sheets. Responsible for following the Stanley Consultants QA/QC Plan.
03/17 – 09/21	**LA 67: EBR P/L to 8 Miles North of EB, East Feliciana Parish, LA; DOTD:** Serving as Engineer Intern, Kayla is responsible for assisting with topographic survey field work. Assisted with the drafting of typical section sheets, quantity tables, guardrail layouts, miscellaneous detail sheets using MicroStation, and performed quantity calculations. Also assisted with the development of cost estimates. Responsible for following the Stanley Consultants QA/QC Plan.
06/18 – 12/20	**US 61: Bluebonnet Blvd to S. End US 190, Baton Rouge, LA; DOTD:** Serving as Engineer Intern, Kayla was responsible for assisting with topographic survey field work. She assisted with the drafting of typical section sheets, quantity tables, guardrail layouts, miscellaneous detail sheets using MicroStation, and performed quantity calculations. Kayla also assisted with the development of cost estimates. Responsible for following the Stanley Consultants QA/QC Plan.

Firm Employed By: Stanley Consultants, Inc.					
Name:	Jackie Wood			**Years of relevant experience with this employer**	4
Title:	Senior Designer			**Years of relevant experience with other employer(s)**	37
Degree(s) / Years / Specialization:				--	
Active Registration Number / State / Expiration Date:				--	
Year registered:	--	**Discipline:**		--	
Contract role(s) / brief description of responsibilities:				Jackie will provide roadway design and graphics services on this contract. Previously, Jackie worked with DOTD graphics to add symbology parameters for the Road Design Standards for CADConform and continues to have frequent contact with DOTD CADConform managers. Her skills include proficiency in MicroStation Inroads, DOTD CADConform and knowledge of AutoCAD.	

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 time specified in the applicable MPR(s).
	Jackie has experience in road design since 1980, including creation of roadway plans (design and drafting); assisting contractors and engineers with the coordination of field changes, creation of work drawings and change orders; completing feasibility studies; and training of engineer-interns and CAD technicians.
09/16 – 05/21	**I-12, LA 21 to US 190 Widening Design, St. Tammany Parish, LA; DOTD:** Jackie served as Senior Designer responsible for sheet creation, roadway design, plan production, DOTD formatting and CADConform compliance.
06/15 – 02/21	**LA 675 and LA 87 Improvements, New Iberia, LA; DOTD:** Serving as Senior Designer, Jackie was responsible for sheet creation, preliminary backcheck of plans, correcting and CAD Conforming of plans.
04/17 – 05/21	**LA 30 Roundabouts at Tanger & I-10, Ascension Parish, LA; DOTD:** Serving as Senior Designer, Jackie was responsible for the design of three multi-lane roundabouts along the LA 30 corridor in Gonzales, LA, as well as the preparation of the typical section sheets, geometric sheets, and plan/profile sheets.
06/18 – 02/20	**LA 1, Iberville, Port Allen Canal Misc. Pavement Preservation, West Baton Rouge Parish, LA; DOTD:** Serving as Senior Designer, Jackie was responsible for preliminary backcheck of plans, correcting and CADD conforming of plans.

04/17 - Ongoing	**Roundabout: US 171 at Boone St., Vernon Parish, LA; DOTD:** Serving as Senior Designer, Jackie is responsible for the design of intersection and corridor improvements along US 171. Design includes a roundabout, J-turn and turn lanes.
03/16 – 12/18	**I-10/Loyola Interchange Improvements, Kenner, LA; DOTD:** Serving as Senior Designer, Jackie was responsible for assisting with Environmental Assessment and IMR alternative concepts and exhibits. Additionally, she aided in MicroStation and ArcGIS conversions and aerials.
05/19 – 07/20	**I-12 Widening Design-Build (O'Neal Ln. to Pete's Hwy), Baton Rouge, LA; DOTD:** Serving as Lead Designer, Jackie was responsible for designing and producing MicroStation and InRoads files associated with this project. She also assisted with the preparation of roadway plans and revisions during the construction phase.

Firm employed by Vectura Consulting Services, LLC					
Name	**Sheelagh Brin Ferlito, PE, PTOE**			Years of relevant experience with this employer	6
Title	Supervisor			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.25383 / LA / 09-30-2023		
Year registered	1993	Discipline	Civil		
Contract role(s) / brief description of responsibilities			QC for TMP		

02/20 – current	**H.010616 DOTD I:20 LA 544 Overpass Replacement (Ruston, LA)** Brin is the project manager for the **Transportation Management Plan (TMP)** as part of a design for a bridge replacement and three roundabouts in Ruston, LA. The TMP was a **Level 2** and included evaluation of 10 Sequence of Construction Phases. Detours included rerouting traffic to other interchanges at nighttime only, rerouting traffic from I-20 to the off ramp and on ramp at nighttime only, and rerouting traffic to service roads in vicinity of the project. Brin coordinated the queue analysis with DOTD to determine when lane closures would be allowed utilizing 24-hour tube counts. She will also coordinate the development of temporary traffic signal plans for this project as well.
07/19 – current	**H.004791 DOTD Belle Chasse Bridge & Tunnel Replacement PPP (Belle Chasse, LA)** Brin is the project manager for all traffic services for the tunnel replacement in Belle Chasse, LA. She coordinated with DOTD to develop and analyses design year volumes to determine lane utilization and storage lengths for the intersections of LA 23 at Burmaster St and at Engineers Rd. She coordinated the detour plans based on the sequence of construction as part of the **Level 2 Transportation Management Plan (TMP**). She also coordinated the queue analysis with DOTD to determine when lane closures would be allowed utilizing 24-hour tube counts. She oversaw the development of the temporary and permanent traffic signal plans for two intersections on the project. This project is the first ever Public-Private-Partnership performed by Louisiana DOTD.
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, analyzed **3-year intersection crash data** and developed signal timing for pedestrians to cross the street.
09/16-04/17	**H.004957.5 I-12 To Bush - LA 3241 (I-12 – LA 36) Corridor Study (St. Tammany Parish, LA)** Brin was the project manager of a formal DOTD traffic study for the new alignment of LA 3241 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. The traffic study examined concepts to improve the safety and efficiency of the roadway consistent with the latest DOTD policies related to access management and complete streets. Specific access management features examined

	included intersection improvements, median openings, and U-turns, spacing and type of openings, signalization of intersections and roundabouts. Brin developed the **safety analyses report** for the project.
06/16-09/17	**H.004490 Stage 0 Roundabout Studies (Lafayette Parish, LA)** Brin developed sections of a **Stage 0 Feasibility Study** for roundabouts the conformed to DOTD EDSMs and Traffic Engineering Manual Section 20.2 at ten intersections in the Lafayette area. Brin, along with Laurence, collected 7-day, 24-hour counts w/ classification, turning movement counts for AM and PM peak periods and speed data for mainlines. Brin provide a QC review of the Sidra analyses and **developed traffic signal timing** for 3 intersections for Years 2019 and 2039, AM & PM peak hours and developed a **crash analysis** as defined in Section 20.2 of TEM. CMF factors were identified for the preferred alternative to predict the number of crashes that could be eliminated. Brin provided a QC review of the final draft.
08/12-05/13	**H.009998 LA 935 Safety / Stage 0 Study (Ascension Parish, LA)** Brin developed the **safety analyses report** for the project. She coordinated and collected existing traffic data using Jamar equipment. She used HCS and **Interactive Highway Safety Design Model (IHSDM) Software** for the analyses. She developed MicroStation drawings with scaled aerials to show **crash diagram locations** as well as proposed alternate layouts. Histograms developed in Excel were used to show the comparison of various crash conditions with statewide averages. Crash records for 3 years were obtained from crash1 database.
01/09 – 03/12	**S.P. No. 700-99-0332 US 165 Corridor Study Pineville** Brin was the Senior Project Engineer for a corridor traffic study in Pineville, LA. The project included traffic data collection, forecast traffic volume development, existing analyses and proposed alternative analyses that included improved **traffic signal timings**. She used Highway Capacity Manual software, Sidra software and VISSIM traffic simulation software to evaluate existing and proposed alternative conditions. Access management principles were applied to the proposed alternatives.
08/07-01/08	**S.P. No. 700-99-0332, T.O. N0. 701-65-0868, I-12 VISSIM Modeling (East Baton Rouge Parish)** Brin reviewed collected traffic data, historical traffic data and observed queues on I-12 and the interchanges between Airline Highway and O'Neal Lane during the peak periods. She developed peak hour traffic volume maps for the study area and then developed the VISSIM Model for the peak hours that included static routing, demand traffic volumes, lane geometry, conflict areas, and priority rules to replicate existing conditions. She also developed VISSIM models to analyze improvement options to the O'Neal Lane ramps.

Firm employed by Vectura Consulting Services, LLC					
Name	**Laurence Lambert, II, PE, PTOE, PTP**			Years of relevant experience with this employer	6
Title	Supervisor			Years of relevant experience with other employer(s)	18
Degree(s) / Years / Specialization			B.S./1997/Civil Eng. M.S./2006/Civil Eng. (Transportation focus) M.B.A./2010		
Active registration number / state / expiration date			PE.29901 / LA / 03-31-2022		
Year registered	2001	Discipline	Civil		
Contract role(s) / brief description of responsibilities			Principal in Charge of TMP		

02/21 - 03/21	**H.013256.5 I-10 ITS Scott to Lake Charles (Southwest Louisiana)** Laurence was the lead traffic engineer for a Level 2 **Traffic Management Plan** (TMP) for the construction of ITS equipment along I-10. The plan included a safety strategy that included a CAT Scan, LOS determination utilizing Citrix data, lane closure recommendations based on a queue analysis and public information strategies.
10/17 - 10/18	**H.013025 LA 182 (University Avenue) Corridor Planning Study (Lafayette, LA)** Laurence was the lead transportation engineer for a **Corridor Planning Study** for LA 182. The scope focused on improving safety and mobility for pedestrian, bicycle, and transit users. Laurence collected AM & PM peak vehicle turning movement counts as well as pedestrian and bicycle counts. Laurence coordinated with the Acadiana Planning Commission to **develop growth rates and design year volumes**. Laurence then performed Highway Capacity Manual analysis for 5 intersections along the intersection analyses for the signalized and roundabout controlled alternatives. Included in the study was a **safety analyses** of five intersections and the intermediate segments. Based on the results of the safety analysis, Laurence provided design criteria to the design team for improving safety of pedestrians, bicycles, and vehicles.
06/16 - 09/17	**H.004490 Stage 0 Roundabout Studies, (Lafayette Parish, LA)** Laurence performed a **Stage 0 Feasibility Study** for roundabouts at ten intersections in the Lafayette area. The scope was developed based on EDSMs VI.1.1.1 / VI.1.1.5 and DOTD Traffic Engineering Manual Section 20.2. Laurence, along with Brin, **collected 7-day, 24-hour counts w/ classification, turning movement counts for peak periods and speed data for mainlines**. Once the traffic data was collected, Laurence performed **traffic signal warrants analyses**, performed a Sidra unsignalized, signalized and roundabout analyses. After the analyses were completed, Laurence developed a report that captured the results.
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.
03/10 - 11/11	**S.P. No. 700-09-0171 Stage 0 and 1 Study I-49 Inner City Connector (Shreveport, LA)** This 3.5-mile route will connect existing **I-49 / I-20 interchange to the proposed I-49 / I-220 interchange**. After completing the Stage 0, Laurence was the project manager for the traffic analyses for the EA phase. The total traffic analyses effort included over 30 TransCAD Models, 20 interchanges and 70 intersections. Analyses included signalized and unsignalized intersections, basic freeway segments, freeway merge / diverge segments and freeway weaving segments at the studied intersections and interchanges. This project included performing both Interchange Modifications Reports (IMRs) and Interchange Justification Reports (IJRs).
04/11 - 09/11	**SPN 424-04-0032 US 90 at Louisiana 85 Design-Build Maintenance of Traffic Plan, (Iberia Parish, LA)** Laurence developed a **Maintenance of Traffic** plan that accommodated the bridge and road widening, but also maintain passage of large trucks and freight through the heavily travelled corridor crucial for agricultural goods and farming. Laurence was the Lead Traffic Engineer for one of the first design-build projects undertaken by DOTD, which included the construction of a grade separated, diamond interchange to replace the existing US 90 intersections with Louisiana 85 in Iberia Parish to upgrade this future I-49 corridor to interstate standards.
06/10 - 10/10	**SPN 454-02-0071 I-12 Widening Design-Build Amite River Bridge to Juban Road Maintenance of Traffic Plan, (Livingston Parish, LA)** Laurence was responsible for designing a **Maintenance of Traffic** plan that would keep drivers informed of real time traffic situations through a comprehensive traffic management system. Four lanes (two lanes in each direction) were to remain open during peak travel times throughout the length of the project. Temporary lane closures only occurred at night.
04/04 - 09/06	**Stage 0 I-10 at Pecue Lane Interchange Justification Study (Baton Rouge, LA)** Laurence was the lead traffic engineer for a **Stage 0** traffic study analyzing the proposed interchange at I-10 and Pecue Lane. Laurence developed current and future traffic volumes based on the CRPC **TransCAD model** growth rates. Using HCS, Laurence **analyzed signalized and unsignalized intersections**, basic freeway segments, freeway merge / diverge segments and freeway weaving segments. Laurence also developed a micro-simulation model in both VISSIM and TSIS.
04/04 - 12/04	**I-10 Frontage Roads, Picardy Interchange, Bluebonnet Siegen (Baton Rouge, LA)** Laurence provided the traffic analysis for a highly unique reconfiguration of interstate ramps that included frontage roads and an overpass of I-10 for new an interchange at Picardy. HCS and VISSIM were the primary analysis tools for the analysis. As part of the design team that developed the concept for this project, Laurence performed **feasibility studies**, developed design criteria, and coordinated with city, state and federal agencies for approvals as well as gathered public input. Laurence prepared traffic signal timings and designs that included cost estimates for the project.

Firm employed by Vectura Consulting Services, LLC					
Name	**Prasanth Malisetty, PE, PTOE, PTP, RSP1**			Years of relevant experience with this employer	1
Title	Project Traffic Engineer/Project Manager			Years of relevant experience with other employer(s)	17
Degree(s) / Years / Specialization			B.E. / 2003/ Civil Engineering; M.S. / 2004/ Civil Engineering		
Active registration number / state / expiration date			PE.35792 / LA / 03-31-2023		
Year registered	2010	Discipline	Civil		
Contract role(s) / brief description of responsibilities			Project Manager of TMP		

11/20 - current	**H.011909.5 Roundabout: US 171 at Boone St, Leesville, LA** Prasanth was the lead designer of temporary traffic signal plans as part of the **sequence of construction plan** for a roundabout construction at the intersection of US 171 at Boone Street in Leesville, LA. Prasanth developed a detailed study of sequence of construction plans to determine the optimal traffic signal operation and required traffic signal equipment for each sequence of construction phase. Prasanth developed multiple traffic signal timing plans by time of day for each sequence of construction phase to maintain progression along main corridor, as well as, developed temporary signal plans including pole and span wire layout, signs, striping, power source, signal timings by time of day, vehicle detection, signal head placement, wiring diagram, pole height calculations, clearance calculations, quantities, construction cost estimate.
02/20 – current	**H.010616 DOTD I:20 LA 544 Overpass Replacement (Ruston, LA)** Prasanth assisted Brin in developing a TMP as part of a design for a bridge replacement and three roundabouts in Ruston, LA. The **TMP was a Level 2** and included evaluation of 10 Sequence of Construction Phases. Detours included rerouting traffic to other interchanges at nighttime only, rerouting traffic from I-20 to the off ramp and on ramp at nighttime only, and rerouting traffic to service roads in vicinity of the project. Prasanth assisted Brin with coordination of the queue analysis with DOTD to determine when lane closures would be allowed utilizing 24-hour tube counts.
11/17 – 12/18	**H.013264 District 08 Safety Investment Plan.** Prasanth was the project engineer responsible for preforming districtwide **safety analysis** and preliminary engineering studies for various locations considered high potential for safety improvements. Responsible for evaluating crash statistics to identify possible roadway issues by using appropriate safety analysis tools and recommend potential operation safety countermeasures. Developed Countermeasure Evaluation Tool (CET) tool which aid in determining total crash reduction for each proposed countermeasure with associated cost savings and perform benefit / cost analysis.
10/16-12/18	**H.012685 LA 385 Ryan Street Feasibility Study, Lake Charles, LA.** Prasanth was the project engineer responsible for **developing feasible alternatives** to preserve / enhance mobility and safety along the corridor. The 1.8-mile corridor study area includes 22 intersections and 133 driveways. The project included **data collection, safety / crash review, traffic forecasting, developing alternatives, analysis of existing and proposed conditions and benefit / cost analysis**. The future year traffic for the proposed roadway alternatives was forecasted utilizing IMCAL travel demand model.

02/15-12/16	**H.011403 LA 1208-3 Corridor Study, Alexandria, LA.** Prasanth was the project engineer responsible for developing and examining the concepts that shall improve the safety and efficiency of the corridor. The **proposed alternatives** included modifying roadway characteristics, intersection capacity improvements and roundabouts. Responsible for **safety analysis and alternatives analyses** that included roundabouts, and signalized intersection using Synchro and Sidra.
6/11 – 8/12	**H.002397 LA 16 – I-12 Interchange, Livingston Parish, LA.** Prasanth was the project engineer responsible for traffic forecasting, interchange analysis using **HCM and intersection analysis** using Synchro. Responsible for developing multiple interchange alternative concepts and analysis. The regional impact on the roadway network for the proposed interchange alternatives was determined utilizing CRPC travel demand model.
09/10 – 2/12	**S.P. No. 700-99-0447 US 190 Superstreet Study, Covington, LA**. Prasanth was the project engineer responsible for **performing corridor study** and develop solutions to improve mobility along the corridor. The alternatives analyses included R-CUT and signalized intersection using Synchro and SimTraffic. Responsible for data collection, travel time runs and intersection analysis.
12/18 – 7/20	**H.012018 LCG Adaptive Traffic Signal System, Lafayette, LA.** The project was to develop an Adaptive Traffic Signal network for the Lafayette Consolidated Government, which involved upgrading 190 traffic signal controllers. In addition, 79 traffic signals will be upgraded to become adaptive traffic signals. This will be the largest adaptive traffic signal system installed within the state of Louisiana. Prasanth was the project engineer responsible for overseeing field inspection and **develop signal design plans**
8/10 – 2/18	**LADOTD Traffic Engineering Contracts – Statewide, LA| Project Engineer.** As a project engineer for numerous task orders for Signal Timing Studies and Designs, Prasanth was responsible for coordinating **data collection tasks, intersection analysis, crash analysis,** developing coordinated signal timing plans and field implementation / fine tuning along 27 corridors throughout statewide which involved 264 intersections. Following are the list of corridors: • District 04; LA 1, LA 526 & US 171, Shreveport, LA; LA 3, LA 3105 & LA 72, Bossier, LA – 110 intersections, 7 corridors • District 02; LA 3040 & LA 57, Houma, LA; LA 20, Thibodaux, LA; US 61, New Orleans, LA – 44 intersections, 4 corridors • District 62; US 11, Slidell, LA; LA 19, Baker, LA; LA 44, Gonzales, LA; LA 3124 & LA 60, Bogalusa, LA; LA 10 Franklinton, LA; LA 16, Amite, LA; LA 38, Kentwood, LA; LA 25, Folsom, LA – 68 intersections, 9 corridors • District 58; US 425, Vidalia & Ferriday, LA – 11 intersections, 2 corridors • District 08; LA 1208-03, US 71 & LA 28 – 21 intersections, 3 corridors District 07; US 190 & US 171, DeRidder, LA – 10 intersections, 2 corridors

Firm employed by Vectura Consulting Services, LLC					
Name	**Reece Rodrigue, PE, PTOE**			Years of relevant experience with this employer	1
Title	Project Traffic Engineer/Project Manager			Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization			B.S. / 2013/ Civil Engr.		
Active registration number / state / expiration date			PE.42785 / LA / 03-31-2023		
Year registered	2017	Discipline	Civil		
Contract role(s) / brief description of responsibilities			Support Traffic Engineer for TMP		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
09/20 – Current	**H.011909.5-4 Roundabout: US 171 at Boone St. (Vernon Parish)** Reece is a project engineer as part of the design team for 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 existing allowable movements on US 171 and identified the movements that would be restricted during the proposed construction process and how it would impact the typical traffic patterns.
09/20 – Current	**H.010960.5 LA 30 Roundabouts at Tanger I-10 (Ascension Parish)** Reece is a project engineer as part of 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. Prasanth and Reece calculated 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 existing allowable movements on LA 30 and identified the movements that would be restricted during the proposed construction process and how it would impact the typical traffic patterns.
4/20 - Current	**H.004791 DOTD Belle Chasse Bridge & Tunnel Replacement Public-Private Partnership Project (Belle Chasse, LA)** Reece is the design engineer for the temporary traffic signal plans for the intersections of LA 23 at Burmaster St and at Engineers Rd. The design of the temporary signals is set for eight phases of construction. Temporary pole locations were recommended for placement for use in all construction phases. Temporary pole heights and clearance interval calculations were conducted in accordance with DOTD and ITE guidance. Reece was responsible for producing the traffic analysis portion of the **Traffic Management Plan (TMP)**, which were also used in the permanent and temporary signal timing plans. He also assisted in the production of the permanent signal plans for the same intersections as the temporary signal plans. Reece was responsible for the production of the 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.
11/15 – 12/16	**H.011849 Veterans Boulevard Corridor Stage 0 Feasibility Study (Jefferson Parish, LA)** Reece was the project manager for the **Stage 0** Corridor Retiming Study along Veterans Blvd from Lake Ave to Massachusetts Ave. He evaluated turning movement counts and the existing traffic signal timings and plans for the 31 signalized intersections along the corridor. He conducted travel time analyses through the corridor during morning, midday, and afternoon peak periods to determine the current flow of traffic through the corridor. He used calculations recommended by ITE to determine the clearance intervals of each intersection along the corridor. For the purposes of analyzing each intersection along the corridor, he assisted in producing a model of the corridor using the traffic signal timing optimization software Synchro 8. He assisted in implementing the new signal timings into the traffic signal controllers of the intersections. Once implementation was complete, he conducted travel time analyses using the new traffic signal timings. He also assisted in drafting the study's report.

Firm employed by: **Ardaman & Associates, Inc.**					
Name	**Mark Woodward, PE**			Years of relevant experience with this employer	4
Title	Principal Engineer			Years of relevant experience with other employer(s)	36
Degree(s) / Years / Specialization				BS / 1982 / Civil Engineering MS / 1986 / Civil Engineering MS / 2019 / Risk Management	
Active registration number / state / expiration date				PE.24206 / LA / 09-30-2023	
Year registered	1991	Discipline		Civil	
Contract role(s) / brief description of responsibilities				QCQA Principal Engineer	

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 time specified in the applicable MPR(s).
	Mr. Woodward served a geotechnical engineer and retired as the Deputy Chief of the Geotechnical Branch and Levee Safety Program Manager of the US Army Corps of Engineers New Orleans office and as project manager for numerous geotechnical engineering projects including pile and drilled shaft foundations, shallow foundations, static and dynamic pile testing, ground improvement, deep excavations, relief wells, wick drains, dewatering systems, settlement, seepage and slope stability. He has coordinated many geotechnical field investigations, including shallow and deep borings, CPT soundings geophysical surveys, and performed analyses and prepares design recommendation reports. He served as geotechnical engineer for several pump station projects within the Hurricane and Storm Damage Risk Reduction System and New Orleans to Venice Project. Mr. Woodward is the Principal Engineer of our New Orleans office, overseeing and reviewing work of Professional Engineers and Engineers in Training on geotechnical projects ranging from single family homes to large industrial and government civil projects. The analysis includes but are not limited to slope stability, seepage, settlement, pile capacity, down drag, dewatering, excavations.
10/18-Ongoing	**H.003370: I-220/I-20 Interchange Improvement & Barksdale Air Force Base Access Road, Bossier, LA** *QA 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 for this project, reviewing all work product in design and construction phase.
05/18-09/19	**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. A new bridge over the Bogue Falaya River will be constructed adjacent to, and east of, the existing bridge. The existing bridge will remain and function as two lanes of southbound traffic. The new bridge will be 54-feet-wide with three 12-foot travel lanes for 2 northbound traffic with an eight-foot shoulder to the inside and a 10-foot shoulder to the outside.
07/17-Ongoin	**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.
05/18-08/19	**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 Interstate 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. The field investigation, conducted in accordance with LADOTD specifications, included field reconnaissance including determining access and gaining rights of entry, completing utility locations, locating/staking boring locations, and developing a plan for the initial mobilization of equipment to the site and mobilization between sites. Soil boring logs were created in LADOTD format. Mr. Woodward is providing oversight for an effort to perform additional soil borings, lab testing and engineering analyses for a retaining wall for one of the bridge abutments.
05/18-07/18	**Imtt Access Road Pavement, Avondale, Jefferson Parish, LA** *Principal Engineer.* Served as senior engineer for 2200 feet long and 50 feet 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.

Firm employed by: **Ardaman & Associates, Inc.**					
Name	**Megan Bourgeois, PE**			Years of relevant experience with this employer	16
Title	Project Engineer / Assistant Branch Manager			Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			BS / 2006 / Civil Engineering		
Active registration number / state / expiration date			PE.36725 / LA / 03-31-2022		
Year registered	2011	Discipline	Civil		
Contract role(s) / brief description of responsibilities			Geotechnical Project Manager		
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 time specified in the applicable MPR(s).				
Ms. Bourgeois has 15 years of experience with shallow foundations, embankment settlement, pile and drilled shaft foundations, LRFD design, slope stability (embankment and excavation), pipeline and pump station recommendations, geotechnical instrumentation, and construction monitoring. She has managed numerous geotechnical investigations and design evaluations, managed laboratory testing programs, while also serving as Ardaman's program manager for many LADOTD projects for bridges and roadways throughout Louisiana. Ms. Bourgeois also serves as the director of our geotechnical engineering laboratory in Baton Rouge. In this role, she supervises the laboratory manager, oversees testing, provides guidance to laboratory staff, and ensures appropriate protocol is followed and deadlines are met in addition to provide training material and maintaining AASHTO certifications.					
10/09-03/18	**H.004646.5: I-20 Mississippi River Bridge Review, Vicksburg, MS** *Project Manager*, managing a highly technical team including academia, outside experts, including internationally recognized geotechnical engineers, geohydrologist, instrumentation specialists, and 3-D geotechnical modeling experts. She managed 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, included x-ray diffraction for the determination of mineralogy, x-ray scanning of unextruded samples to identify existing shearing plane, stress-reversal direct shear tests to determine true residual angles of critical strata. She was instrumental in designing the geotechnical instrumentation for this project including vibrating wire piezometers, Casagrande type piezometers, In-place inclinometers, SAA inclinometers, and traditional inclinometers. Ms. Bourgeois performed seepage and drawdown analyses, slope stability analyses, evaluation of remedial measures, and developed technically feasible solutions.					
10/19-Ongoing	**H.000263: Chef Menteur Pass Bridge & Approach: Orleans Parish, LA** *Project Manager,* managing all aspects of an extensive field investigation program including performing 26 deep soil borings and 12 CPT soundings, including borings over 200 feet in over 80 feet deep of high flow water. Ms. Bourgeois also managed laboratory testing program to provide geotechnical characterization data for use in design of deep foundations and embankments, oversaw the field resistivity testing program, and developed the data report.				

08/08 – 12/13	**H.003886.5: I-49 North Phase II: Caddo Parish, LA** *Laboratory Director/Assistant Project Engineer.* Closely coordinated laboratory testing program with to provide geotechnical characterization data for use in design of deep foundations, earth retaining structures and culverts.
07/15-Ongoing	**H.004273: I-49 Connector (Lafayette Airport To I-10/I-49/US 167 Interchange), Lafayette Parish, LA** *Project Engineer, a*ssisting the Program Manager in overseeing the geotechnical investigation and design of the 5 miles of freeway consisting of a 3.5-mile elevated structures that will include pile supported approach slabs, pile foundations, slope stability, embankment settlement, advanced pile load test programs, and earth retaining structures. Overseeing laboratory program which will include a total of more than 400 borings including deep borings, shallow borings, and CPT soundings. Ms. Bourgeois is the project lead to develop the Geotechnical Investigation and Design Report once the environmental clearance of contaminated areas is received and the borings within these areas are completed.
03/19-07/20	**H.004100.5-2: I-10 Widening (LA 415 TO Howard ST), East Baton Rouge Parish, LA.** *Project Manager.* Managing all aspects of the widening of the East and Westbound lanes, elevated structures, and construction of interchange and ramps on Westbound lanes along I-10 between LA 415 and Howard Street spanning approximately 1 mile. The geotechnical investigation will include 58 deep borings and 15 cone penetrometer (CPT) soundings, electrical resistivity imaging, laboratory testing and the preparation of report.
10/14-12/16	**H.010601.5: I-10 Widening (E. JCT. I-49 to LA 328), St. Martin Parish, LA.** *Project Engineer.* Managed and provided oversight for the geotechnical investigation which included 44 deep borings and 25 cone penetrometer (CPT) soundings, associated laboratory testing, and preparation of a geotechnical data report for the widening of the nine existing structures along I-10 between I-49 to LA 328 spanning approximately 7 miles.
09/15-11/15	**H.003298: Tarbutton Road Interchange & I-20 Frontage Roads Bridge Redesign, Lincoln Parish, LA.** *Project Manager*. Reviewed existing geotechnical data for use in design analyses, performed drilled shaft design, supervised slope stability analyses for the approach embankment and developed settlement monitoring plans with recommendations for implementation prior to abutment construction as well as drilled shaft monitoring/cross-hole sonic logging recommendations. Final report will include geotechnical design recommendations.
05/06-12/11	**SP No. 700-29-0112 & 700-29-0130 / LA 1 – Phases 1 & 2: Lafourche Parish, LA.** *Project Engineer*. The project is second phase of the 17-mile elevated highway spanning from Golden Meadow to Fourchon. Ms. Bourgeois directed the laboratory testing program to ensure adherence to LADOTD standards and managed the drilling operations which included deep borings and CPT soundings in the coastal marshes via air-boat mounted equipment. She oversaw the completion of over 70 soil boring logs and approximately 300 CPT sounding logs for use in design of pile foundations.

Firm employed by: **Ardaman & Associates, Inc.**					
Name	**Robert Jewell, PE**			Years of relevant experience with this employer	15
Title	Project Engineer / Branch Manager			Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			BS / 2009 / Civil Engineering		
Active registration number / state / expiration date			PE.38579 / LA / 09-30-2022		
Year registered	2013	Discipline	Civil		
Contract role(s) / brief description of responsibilities			Project Engineer		

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 time specified in the applicable MPR(s).
Mr. Jewell serves as the manager of Baton Rouge office and as project manager for various geotechnical engineering projects including pile and drilled shaft foundations, shallow foundations, static and dynamic pile testing, and slope stability. 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. For two years, he served as an on-site engineer for the LA Hwy. 1, Phase 1 project, where he conducted PDA testing and pile monitoring during construction. Mr. Jewell also achieved Advanced Level Certification for High Strain Dynamic Testing issued by the Pile Driving Contractors Association for Dynamic Measurement and Analysis Proficiency.	
10/18-Ongoing	**H.000263.5-1: Chef Menteur Pass Bridge & Approach: Orleans Parish, LA.** *Project Engineer*. Mr. Jewell oversaw the geotechnical investigation consisting of deep borings and field resistivity testing. Reviewed laboratory tests, final soil and CPT logs, and the data report.
10/18-Ongoing	**H.003370: I-220/I-20 Interchange Improvement & Barksdale Air Force Base Access Road, Bossier, LA** *Project Engineer.* Assisted the Project Manager in preparing the preliminary design and planning report for this 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. Jewell is currently overseeing the field construction services consisting of PDA monitoring, bi-directional load cell load tests, and settlement monitoring.
03/19-07/20	**H.004100.5-2 / I-10 Widening (LA 415 TO Howard ST), East Baton Rouge Parish, LA.** *Project Engineer.* Comanaged all aspects of the widening of the East and Westbound lanes, elevated structures, and construction of interchange and ramps on westbound lanes along I-10 between LA 415 and Howard Street spanning approximately 1 mile. The geotechnical investigation included 91 deep borings and 25 cone penetrometer (CPT) soundings, field resistivity testing, and associated laboratory testing and the preparation of report.
07/15-Ongoing	**H.004273.5: I-49 Connector (Lafayette Airport TO I-10/I-49/US 167 Interchange), Lafayette Parish, LA.**

	Project Manager. Manages the geotechnical investigation and design for the construction of 5 miles of freeway consisting of a 3.5-mile elevated structure that will include pile supported approach slabs, pile foundations, slope stability, embankment settlement, advanced load test programs, and earth retaining structures. Oversees and coordinates the field and laboratory program which will include a total of more than 400 borings including deep borings, shallow borings, and CPT soundings. He will be the co-principal for developing the Geotechnical Investigation and Design Report to be developed for this project.
11/15-Ongoing	**H.011309: Macarthur Interchange Completion Phase II, US 90Z, Jefferson Parish, LA** *Project Manager.* Oversaw the geotechnical field investigation that included deep and shallow CPT soundings, borings, laboratory testing, subsurface characterization, and engineering analyses to provide foundation design, verification of test plans and construction monitoring plans for the addition of two ramps. Design recommendations included post grouted drilled shafts.
04/14-Ongoing	**H.004435 / I-12 TO Bush Segment 2, LA 3241 (LA 36-LA435), St. Tammany Parish, LA** *Project Engineer*. 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. 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.
10/14-12/16	**H.010601.5: I-10 Widening (E. JET. I-49 TO LA 328), St. Martin Parish, LA.** *Project Engineer*. Oversaw and coordinated the geotechnical investigation which will include 44 deep borings and 25 cone penetrometer (CPT) soundings, associated laboratory testing, and preparation of a geotechnical data report for the widening of the nine structures along I-10 between I-49 to LA 328 spanning approximately 7 miles.
2015 - Ongoing	**H.013579: Pecue Lane I-10 Interchange I-10: East Baton Rouge, LA.** *Project Engineer*. Managing all aspects of the project from field investigations, laboratory testing program, and engineering design. This interchange consists of twin bridges with MSE wall abutments for both bridges crossing Interstate I-10 in south Baton Rouge. The end bends are supported on 20+ feet MSW walls. The estimated consolidation from the embankment fill is 2 to 4 inches. The settlement will cause down drag on the end bent piles. Analysis for the project included 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.

Firm employed by: **Ardaman & Associates, Inc.**					
Name	**Robert Rousset, PE**			Years of relevant experience with this employer	16
Title	Project Engineer			Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			BS / 2008 / Civil Engineering		
Active registration number / state / expiration date			PE.38637 / LA / 09-30-2020		
Year registered	2014	Discipline	Civil		
Contract role(s) / brief description of responsibilities			Contract Role: Project Engineer		

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 time specified in the applicable MPR(s).
Mr. Rousset serves as the manager of Ardaman's New Orleans office and as project manager for various geotechnical engineering projects as well as contract administrator of several major contracts. He has managed projects that have included pile and drilled shaft foundations, shallow foundations, static and dynamic pile testing, and slope stability. For two years, he served as an on-site engineer for the LA Hwy. 1, Phase 1 project, where he conducted PDA testing and pile monitoring during construction. Mr. Rousset also achieved Intermediate Level Certification for High Strain Dynamic Testing issued by the Pile Driving Contractors Association for Dynamic Measurement and Analysis Proficiency.	
07/16-Ongoing	**H.004113: I-12 (US 190 TO LA 59), East Baton Rouge Parish, LA** *Project Manager*. Oversaw and coordinated the geotechnical investigation which included 23 deep soil borings and associated laboratory testing along an alignment that included 4 bridges.
07/14-05/18	**H.004113: I-12 TO Bush Segment 3, LA Highway 3241 (LA 435 TO LA 40/LA 41), St. Tammany Parish, LA** *Project Manager.* Oversaw and coordinated the geotechnical investigation which included 26 soil borings, sampling, and laboratory testing along the alignment that included one bridge, LA 435 over Talisheek Creek. Oversaw geotechnical analyses and preparation of design recommendation report which included pile supported approach slabs and pile foundations for the bridge structures and shallow foundation design for the culverts.
05/12-03/13	**H.002260.5: Goose Bayou Bridge Route LA 45, Lafayette, LA** *Assistant Project Engineer*. Managed geotechnical investigation for the bridge that included drilling and laboratory testing of 2 deep soil borings and 4 CPT soundings performed with barge-mounted drilling equipment under difficult access conditions. Assisted with providing final soil boring logs and CPT sounding logs in LADOTD format.

07/09-08/11	**SP No. 700-29-0112 / LA 1 – Phase 1, Lafourche Parish, LA.** *Assistant Project Engineer*. Served in the field as onsite engineer for Phase 1A of this project in southeast Louisiana. The completed project consisted of 17 miles of elevated roadway with low-level bridges and medium-level bridges, two elevated interchanges, and two fixed high-level bridges over navigable waterways. Conducted dynamic monitoring using PDA, performing CAPWAP analyses, reviewed drive logs, and supervised field technicians.
03/11-02/12	**H.003886.5: I-49 Segment J, Caddo Parish, LA.** *Assistant Project Engineer*. Mr. Rousset planned the geotechnical investigation program, coordinated field activities, assigned lab testing, reviewed laboratory test results, classified soil types based on laboratory tests, and compiled soil boring logs in the LA DOTD format.

Firm employed by: Gulf South Research Corporation					
Name	**Suna Adam**			Years of relevant experience with this employer	28
Title	President			Years of relevant experience with other employer(s)	5
Degree(s) / Years / Specialization			BS / 1988 / Forestry-Wildlife Management		
Active registration number / state / expiration date			NA		
Year registered		Discipline			
Contract role(s) / brief description of responsibilities			Overseeing environmental and permitting activities		

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 Federal agencies, including the U.S. Army Corps of Engineers. Under her leadership, GSRC has grown from one employee in 1994 to 34 full time professionals and has grown the contract base to provide annual revenues of several million dollars. As an ecologist, Ms. Adam has participated in numerous environmental projects ranging from endangered species surveys and wetland delineations to environmental assessments and environmental impact statements.

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 requirement, the U.S. Army Corps of Engineers Regulatory IV Wetland Identification and Delineation course, a U.S. Fish and Wildlife Symposium on the red-cockaded woodpecker, and a Habitat Evaluation Procedures (HEP) course also sponsored by the U.S. Fish and Wildlife Service.

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 time specified in the applicable MPR(s).
01/12–01/17	**IDIQ Contract for Natural and Cultural Research and Development Services for Various Military and Civil Works Projects at Fort Polk, Louisiana, and other locations within the Southwest Division of the USACE.** Ms. Adam managed this contract and provided oversight on task orders issued to support projects that included engineering technical support for the Fort Polk Installation Restoration Program (IRP); Phase I Environmental Site Assessments; the preparation of habitat restoration plans; **wetland delineations**; cultural resources surveys, historic structure evaluations, and archaeological surveys; NEPA for an Immigration and Customs Enforcement (ICE) facility in Louisiana and U.S. Border Patrol (USBP) towers in Texas; sustainability studies; and greenhouse gas emissions inventories.
01/10–01/12	**Supplemental Environmental Impact Statement, Hurricane Protection Levee Improvement Project, New Orleans to Venice, Louisiana, U.S. Army Corps of Engineers, Vicksburg District.**

	GSRC prepared a SEIS for the USACE, Vicksburg District, to evaluate potential impacts associated with the authorized improvements to the New Orleans to Venice (NOV) Federal Hurricane Protection Levee system in Plaquemines Parish, Louisiana. The proposed action is located along the Mississippi River corridor in Plaquemines Parish, Louisiana, and includes Mississippi River and back levee reaches where approximately 90 miles of levees, floodwalls, and floodgates extending from Phoenix to Venice would be modified. 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. GSRC was also tasked with conducting an intensive terrestrial survey in support of the SEIS. Ms. Adam was the Program Manager for this project and assisted in preparation of biological sections of the SEIS.
01/07–01/10	**Environmental and Historical Preservation Review for the Alternative Housing Pilot Project, Federal Emergency Management Agency (FEMA) (HSFEHQ-07-C-0173).** Ms. Adam coordinated the contractual agreements, agency meetings, and technical reviews of all documents submitted for this contract. GSRC was contracted to conduct numerous surveys, cultural, protected species, and wetland delineations within the Gulf Coast region from Texas to Alabama. These areas were affected by hurricanes Katrina and Rita, therefore alternative housing needs were identified in these regions and surveys of these areas were required. GSRC archaeologists and biologists surveyed areas that were identified to become residential development for displaced families.
09/06–12/07	**Wetland Delineation and Determination along Burbank Drive, Baton Rouge, LA** Ms. Adam participated in the coordination and review of the wetland determination and 404 permit application.
01/97–01/99	**Environmental Inventory for the Proposed Louisiana Highway 117 Project, LA** Ms. Adam was responsible for all coordination, data collection, and field reconnaissance required to complete this project for the LADOTD. This project consisted of utilizing all existing information and field verification. These results were incorporated into an environmental inventory report including the potential impacts on protected species, scenic streams, and wetland areas.
01/98–01/99	**Wetland Delineation of Chalmette-Algiers Mississippi River Bridge, Plaquemine, St. Bernard and Orleans Parishes, LA** Ms. Adam participated in field investigations, data collection, coordination, and report development for corridor.

Firm employed by: Gulf South Research Corporation					
Name	**Howard Nass**			Years of relevant experience with this employer	21
Title	Senior Biologist/NEPA			Years of relevant experience with other employer(s)	11
Degree(s) / Years / Specialization			BS / 1990 / Forest and Wildlife Management		
Active registration number / state / expiration date			NA		
Year registered		Discipline	NA		
Contract role(s) / brief description of responsibilities			Senior Biologist/Wetlands		

Mr. Nass has 30 years of experience managing and implementing NEPA and NEPA-related studies for various federal, state, and private entities. He has participated in EAs, BAs, EIS, **wetland determinations and delineations**, wetland mitigation bank development, water resources permitting, and natural resources projects throughout the southeastern U.S. Mr. Nass has managed the completion of over a dozen BAs in various states. Mr. Nass has 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.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
2013-2019	**Interstate 12 (I-12) to Bush Mitigation Plan, LA 3241, St. Tammany Parish, LA** Mr. Nass was the Project Manager for the Bush Mitigation Project. GSRC was contracted by DOTD to prepare a mitigation plan for unavoidable impacts on jurisdictional wetlands associated with the construction of the Interstate 12 (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. As part of the contract, GSRC researched best methods for identifying mitigation measures for projects similar in scope to the I-12 to Bush highway and project and preparing a mitigation report for DOTD. This report provides the methodology used by GSRC to identify best methods for identifying mitigation measures for projects similar in scope, research findings, and recommended best practices for wetland mitigation. GSRC's research provided mitigation practices used by other state departments **to streamline the USACE Section 404 permitting process** and mitigation requirements associated with the approval of a Department of the Army individual permit and to reduce costs and liability.
2016-2018	**Maringouin Wetland Delineations and Section 404 Permitting** GSRC was contracted to conduct a wetland delineation on a portion of land in Iberville Parish, Louisiana, for the proposed construction of outfall drainage improvements. The existing drainage system was ineffective for heavy rainfall events and it was determined that the outfall could be improved by the construction of a subsurface

	drainage system. GSRC conducted a wetland delineation of the project area and Mr. Nass completed the subsequent Section 404 Permit.
2012-2014	**Texada II Mitigation Bank Mitigation Banking Agreement, Iberville Parish, LA (Texada Properties, Inc.)** Mr. Nass has managed the development of the Mitigation Banking Instrument for an approximately 106-acre wetland mitigation bank located in Iberville Parish, Louisiana for Texada Properties, Inc. The site was currently leveed and flooded and used for crawfish production. The goals of the mitigation bank is to restore the natural hydrologic regime within the project site and to rehabilitate and re-establish productive, self-sustaining bottomland hardwood forested wetlands and baldcypress/tupelo gum wetlands. As part of the mitigation bank development process GSRC coordinated with the USACE, New Orleans District, and was able to have the previously issued Jurisdictional Determination accepted and extended. GSRC was also responsible for quantifying the acreage that could be used to restore, create, or enhance wetland communities; developing the Mitigation Bank Prospectus and Mitigation Work Plan; assessing the current and expected value of the wetlands using the Modified Charleston Method: and coordinating with the New Orleans District, as well as the U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, and Louisiana Department of Wildlife and Fisheries to gain acceptance and approval of the Mitigation Banking Instrument and Mitigation Work Plan. The Mitigation Banking Agreement was prepared in accordance with 33 Code of Federal Regulation 332.4 (Compensatory Mitigation for Losses of Aquatic Resources: Final Rule).
2011-2014	**Rosedale Mitigation Banking Instrument, West Baton Rouge Parish, LA (A. Wilbert's Sons, LLC)** Mr. Nass managed the development of the Mitigation Banking Instrument for an approximately 220-acre wetland mitigation bank located in West Baton Rouge Parish, Louisiana. The goals of the mitigation bank are to restore the natural hydrologic regime within the project site and to rehabilitate and re-establish a productive, self-sustaining bottomland hardwood forested wetland. As well as developing the Mitigation Banking Instrument, Mr. Nass conducted a wetland delineation of the wetland mitigation bank site, and coordinated with the USACE, New Orleans District, for a Jurisdictional Determination. A Nationwide Permit 27 was submitted by GSRC on December 15, 2011 and accepted by the Department of the Army on June 11, 2012.

Firm employed by: Gulf South Research Corporation					
Name	**John Lindemuth**		Years of relevant experience with this employer	26	
Title	Principal Investigator/Archaeologist		Years of relevant experience with other employer(s)	2	
Degree(s) / Years / Specialization			MA / 1994 / Anthropology BA / 1990 / Anthropology/Sociology		
Active registration number / state / expiration date			NA		
Year registered		Discipline	NA		
Contract role(s) / brief description of responsibilities			Archaeologist		

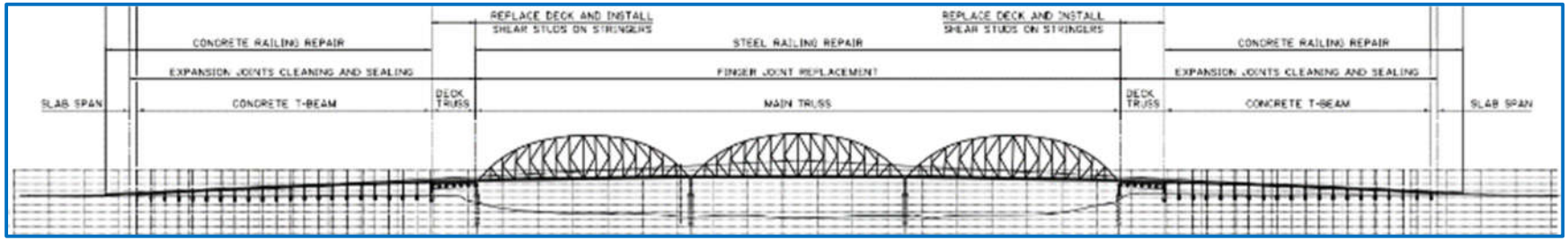
Mr. Lindemuth has 23 years of experience in cultural resource management. He has participated in and supervised intensive pedestrian archaeological surveys, NRHP Eligibility testing, and data recovery excavations in nine states. He has experience in both prehistoric and historic site evaluation and excavation. 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 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.

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 time specified in the applicable MPR(s).
2018-2020	**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, TX** Mr. Lindemuth served as Principal Investigator for the intensive archeological survey of 12.01 linear miles of road construction and improvement corridor totaling 57.4 acres. The survey included a pedestrian walkover, excavation of shovel test pits, and mechanical deep testing. 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 surveys 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.

2014-2017	**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, LA** Mr. Lindemuth served as the principal investigator for the combined Phase II NRHP eligibility 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 technical report was completed.
2007-2016	**Phase I Survey of the proposed I-69 Corridor, Caddo and Bossier Parishes, LA** Mr. Lindemuth served as the principal investigator and supervised the field excavations during the Phase I survey. The project consisted of multiple phases of data collection that were analyzed using a 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 geomorpologist, 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 was the primary author of the cultural resources technical report, which outlined the results of the surveys.
2013-2014	**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 intensive pedestrian 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 integrated the results into the Environmental Assessment, which was prepared for the project in compliance with the National Environmental Policy Act.

17. Firm Experience:

Firm name	SDR Engineering Consultants, Inc.			Past Performance Evaluation 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:

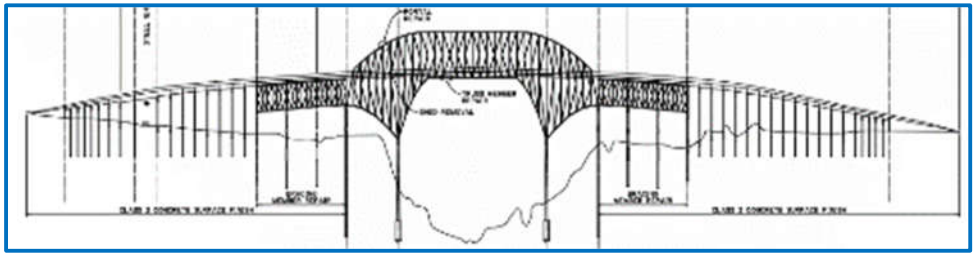
- Inspection of superstructure.
- Load rating of main truss, deck truss, and approach spans.
- Evaluation of superstructure and substructure to determine scope of rehabilitation.
- Diagnostic load test of approach spans using strain gauges and calibration trucks.
- Design rehabilitation and develop construction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

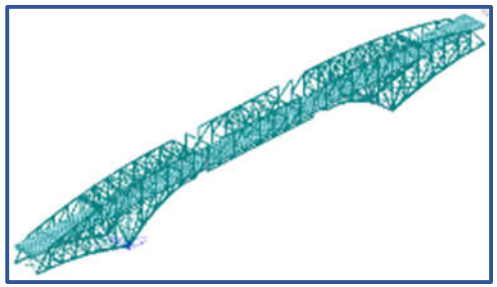
Bridge rehabilitation includes cleaning and painting of all steel members, CFRP strengthening of approach slab spans, replacing concrete deck of deck truss spans, heat-straightening of selected truss members, jacking the deck truss and repair of the rocker bearings, replacing finger joints, and supporting 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.

Firm name	SDR Engineering Consultants, Inc.			Past Performance Evaluation 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	DOTD		
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.Cavalier@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 pans 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:

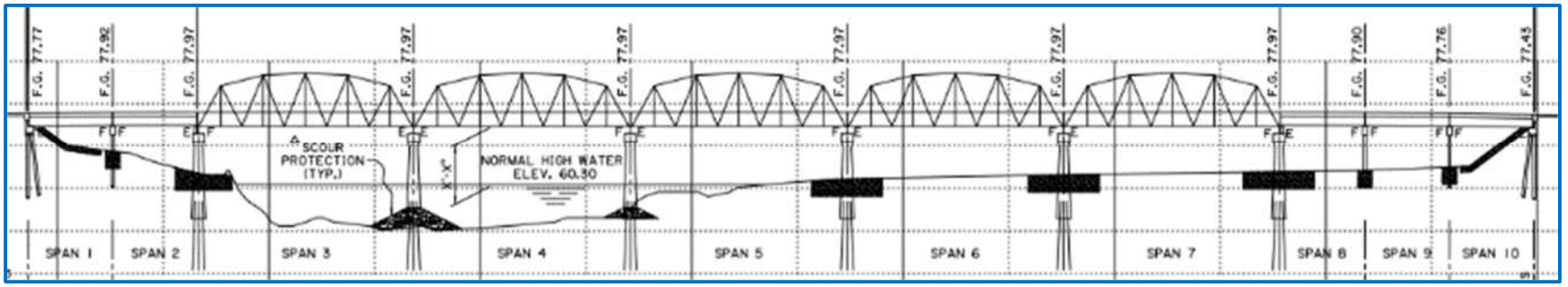
- In-depth inspection of all components of the superstructure and substructure.
- Ultrasonic testing of pins.
- LRFR Load rating utilizing 3-D FE modeling.
- Evaluation of the bridge and determination of proposed scope for rehabilitation.
- Develop final report with rehabilitation recommendations.
- 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).





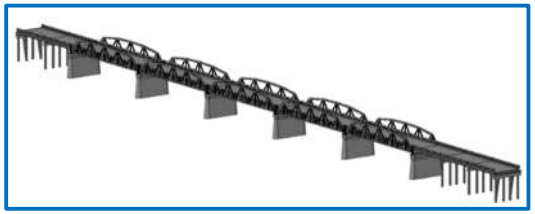
Staff: **Adnan Elsaad; PE, Osama Elsaad, PE; James Fussell, PE; Zhiyong Liang, PhD, PE; Hatem Seliem, PhD, PE; Mohsen Shahawy, PhD, PE; Feng Xie, PE.**

Firm name	SDR Engineering Consultants, Inc.			Past Performance Evaluation Discipline(s)	Bridge
Project name	**LA 66 Big Bayou Sara Bridge Rehab**			Firm responsibility (prime or sub?)	Prime
Project number	H.002281	Owner's name	DOTD		
Project location	West Feliciana Parish, LA		Owner's Project Manager	Brian Delatte, PE	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, 225-379-1328, Brian.Delatte@LA.GOV				
Services commenced by this firm (mm/yy)	01/13	Total consultant contract cost ($1,000's)			$540
Services completed by this firm (mm/yy)	08/16	Cost of consultant services provided by this firm ($1,000's)			$540



The bridge is historic (built in 1949) carrying LA-66 over Big Bayou Sara. It consists of five (5), 100' steel pony truss spans and five (5), 40' steel I-beam approach spans. Services provided included:

- In-depth inspection of the superstructure and substructure.
- Development of 3-D Finite Element models to determine internal forces.
- Evaluation of the existing structure and determine deficient elements.
- Design rehabilitation system for the superstructure and substructure.
- Develop preliminary and final plans for construction.
- Design of temporary steel, two-lane detour bridge to be constructed on north side of the existing bridge to maintain traffic during rehabilitation work on existing bridge.
- Develop cost estimation and schedule.
- Construction support (constractor's submittal, RFIs, site visits, change orders).



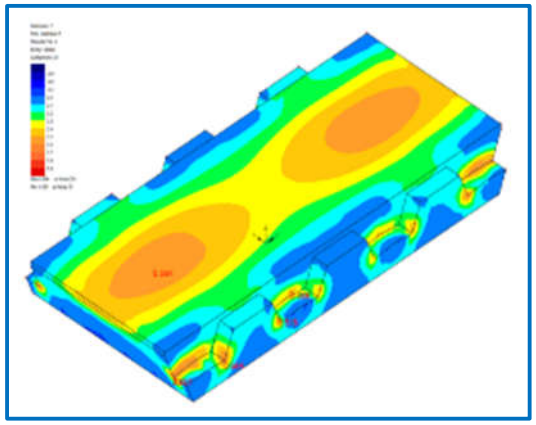
The team members involved in this project included: **Adnan El Saad, PE; James Fussell, PE; Zhiyong Liang, PhD, PE; Hatem Seliem, PhD, PE; Mohsen Shahawy, PhD, PE; Feng Xie, PE**.

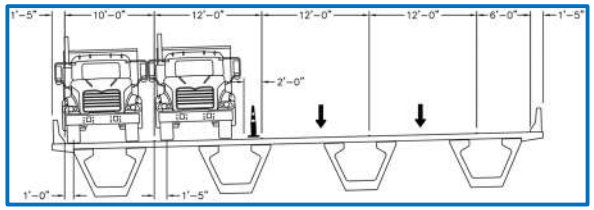
Firm name	SDR Engineering Consultants, Inc.	Past Performance Evaluation Discipline(s)	Bridge
Project name	Evaluation, Instrumentation and Testing of Westbank Expressway (US 90-Z)	Firm responsibility (prime or sub?)	Sub
Project number	H.009933	Owner's name	DOTD
Project location	Jefferson Parish, LA	Owner's 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)	05/12	Total consultant contract cost ($1,000's)	$170
Services completed by this firm (mm/yy)	07/12	Cost of consultant services provided by this firm ($1,000's)	$170

The 6-mile-long eastbound and westbound of US 90-Z (Westbank Expressway) has documented cracking of many of the bridge components, especially on the inverted T pier caps.

The scope of the project was to determine the current extent and activity level of cracking and to recommend repair and strengthening procedures. SDR conducted:

- In-depth inspection of the reinforced concrete caps and girder seat bearings.
- Development of 3-D FE modeling to study the state of stresses in the vicinity of cracks.
- Development of strut-and-tie models to evaluate of the adequacy of the existing reinforcement.
- Instrumentation and diagnostic load testing of three representative inverted-T pier caps utilizing strain gages and crack opening instrumentation.
- Development of repair recommendations.





Based on the test findings and bridge evaluation, several repair options were recommended including installation of near-surface-mounted CFRP bars, installation of externally bonded CFRP wraps, or installation of post-tensioning bars through bridge deck.

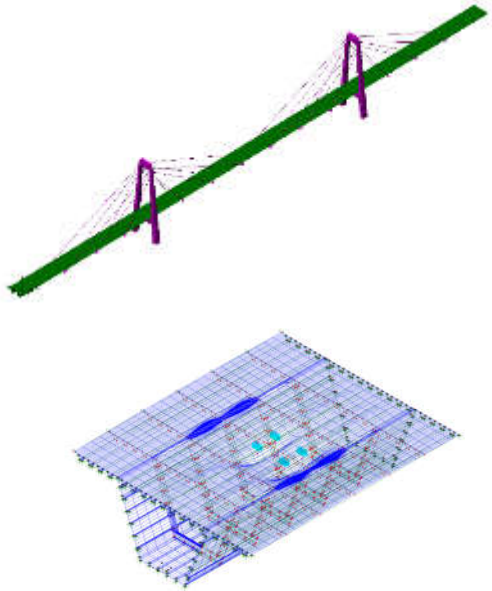
Staff: **Adnan Elsaad, PE**; **Zhiyong Liang, PhD, PE; Mohsen Shahawy, PhD, PE.**

Firm name	SDR Engineering Consultants, Inc.			Past Performance Evaluation 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; James Fussell, PE; Zhiyong Liang, PhD, PE; Hatem Seliem, PhD, PE; Mohsen Shahawy, PhD, PE; Feng Xie, PE.**

Firm name	TranSystems Corporation			Past Performance Evaluation Discipline(s)	Bridge
Project name	**Onslow Beach Bridge Replacement**			Firm responsibility (prime or sub?)	Prime
Project number	1387F	Owner's name	NAVFAC Atlantic		
Project location	Camp Lejeune, NC		Owner's Project Manager	Ab Labidi	
Owner's address, phone, email	6506 Hampton Boulevard, Building A, Norfolk, VA 23508 | (757) 322-8305 | abdelkader@navy.mil				
Services commenced by this firm (mm/yy)	07/2019	Total consultant contract cost ($1,000's)		$602	
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)		$602	

Task Force Florence Project 1387F replaces the existing 66-year-old two-lane swing bridge over the Intracoastal Waterway between main base Camp Lejeune and Onslow beach. Onslow Beach is the only offshore amphibious assault training site on the Atlantic coast, and the bridge is the only permanent transportation link connecting the beach to main base Camp Lejeune training areas. This bridge had reached the end of its useful life and was damaged during Hurricane Florence. TranSystems prepared movable bridge-related sections of the Design-Build Request for Proposal, working with NAVFAC and Camp Lejeune personnel to identify and prescribe requirements specific to the project. The DBRFP incorporated AASHTO and North Carolina Department of Transportation specifications to address bridge-specific elements that are not part of the NAVFAC template specifications. After project award, TranSystems performed Post Construction Award Services as owner's representative, providing technical expertise to review the DB team's plans and specifications during the design phase and offer support after on-site construction activities began.

Relevant team members on the project:

Michael Elza, PE

Steven Shaup, PE

Firm name	TranSystems Corporation		Past Performance Evaluation Discipline(s)	Bridge
Project name	**Northern Avenue Bridge Rehabilitation**		Firm responsibility (prime or sub?)	Prime
Project number	-	Owner's name	City of Boston	
Project location	Boston, MA	Owner's Project Manager	Para Jayasinghe, PE	
Owner's address, phone, email	1 City Hall Square, Boston, MA 02201 | (617) 635-4968 | para.jayasinghe@cityofboston.gov			
Services commenced by this firm (mm/yy)	7/10	Total consultant contract cost ($1,000's)	$1,100	
Services completed by this firm (mm/yy)	8/18	Cost of consultant services provided by this firm ($1,000's)	$1,100	

TranSystems was engaged by the City of Boston to evaluate the bridge condition and prepare preliminary design for the rehabilitation and redevelopment of the Northern Avenue Bridge. Built in 1908, this historic bridge consists of a 283 feet long, pin-connected, swing through truss flanked by 150 feet long, pin-connected, through truss spans on each approach and one 60 feet long deck girder approach span. The three-lane bridge originally carried rail traffic in the center lane and vehicle traffic in the outer lanes, providing the rail and traffic connection to Fan Pier and the entire South Boston waterfront. In addition to serving as another transportation link to the burgeoning Innovation District, the bridge site is unique, providing direct views of and potential access to Boston Harbor while also providing potential access to the Fort Point Channel watersheet. Additionally, the existing bridge served as the Fort Point Channel crossing for the Boston Harborwalk. As part of our contract, we provided bridge inspection, bridge inspection, a roadway configuration study, preliminary traffic analysis, and bridge structural analysis. Based on the results of our bridge inspection and structural analysis, we recommended the City close the bridge to pedestrian traffic, and designed emergency measures to secure the swing span in the open to navigation position.

TranSystems also completed design plans for the removal and off-site storage of the truss spans (span weights up to 1,200 tons) at a City-owned lot in East Boston. The purpose of this contract was to remove and secure this historic structure, while decisions were made relative to rehabilitation or repurposing. This task required multiple coordination meetings with the City and involved agencies (US Army Corps of Engineers, US Coast Guard, Mass Historical Commission, Mass DEP, Mass EPA, Mass Coastal Zone Management, Boston Landmarks Commission, and City of Boston Conservation Commission).

Relevant team members on the project:

Evan Lowell, PE

Steven Shaup, PE

Firm name	TranSystems Corporation	Past Performance Evaluation Discipline(s)	Bridge
Project name	**Historic Bridge of Lions Bascule Bridge**	Firm responsibility (prime or sub?)	Sub
Project number	2125	Owner's name	FDOT District 2
Project location	St. Augustine, FL	Owner's Project Manager	Craig Teal
Owner's address, phone, email	1109 South Marion Street, Lake City, FL | (386) 961-7703 | craig.teal@dot.state.fl.us		
Services commenced by this firm (mm/yy)	09/01	Total consultant contract cost ($1,000's)	$8,000
Services completed by this firm (mm/yy)	12/09	Cost of consultant services provided by this firm ($1,000's)	$4,000

The National-Register-of-Historic-Places-Listed Bridge of Lions features a Mediterranean-Revival architectural style that blends with the rich architecture of the City. The team was charged with preserving the character of the historic bridge while improving its features to provide a safe and efficient structure for the traveling public. TranSystems' scope of work included the historic evaluation and documentation; in-depth structural, mechanical, and electrical inspections and testing; structural, mechanical and electrical engineering design of the new bascule leafs; strengthening of the historically significant bascule piers; and design of the movable spans and piers of the temporary lift bridge. TranSystems inspected all components of the bridge's steel superstructure, concrete decks and substructure and all aesthetic features, including lighting and signage. TranSystems obtained concrete samples and supervised testing to determine best rehabilitation strategies. The project required the construction of a temporary lift bridge to accommodate traffic during the bridge's rehabilitation. TranSystems designed the temporary bridge's lift span and piers and worked to ensure that the design solution was appropriate and cost effective. The project was completed with a Determination of No Adverse Effect on this important historic resource.

Relevant team members on the project:

Alan Klevens, PE

Steven Shaup, PE

Firm name	**Moffatt & Nichol, Inc.**			Past Performance Evaluation Discipline(s)*	Bridge
Project name	**IDIQ for In-Depth Inspection of Complex Bridges, Statewide, Louisiana**.			Firm responsibility (prime or sub?)	Sub
Project number	4400009104	Owner's name	Louisiana Department of Transportation and Development		
Project location	Louisiana		Owner's Project Manager	Stephanie Doolittle, PE	
Owner's address, phone, email	1212 East Highway Drive, Baton Rouge, Louisiana 70802 / 225.379.1500 / jasmine.galjour@la.gov				
Services commenced by this firm (mm/yy)	03/20	Total consultant contract cost ($1,000's)		$5,000	
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)		$600	

As part of the current five-year retainer contract, M&N has and is performing the in- depth bridge inspections on complex and movable bridges throughout Louisiana. As a subconsultant, M&N is performing in-depth inspections (fulfilling both routine & fracture critical inspection types). Level III inspections of submerged elements in accordance with the FHWA, BIRM, AASHTO MBE, AASHTO BEIM, and the LADOTD Bridge Inspection Manual (BIM) are being provided as needed. Bridge types include cantilever trusses, cable-stayed bridges, movable swing span bridges, and bascule bridges. M&N performed the routine in-depth inspection of the Audubon Bridge, specifically to inspect 136 main cables and four 450-ft-high concrete towers. Professional rope access techniques were used to safely access each cable within arm's reach. Element quantities were recalculated, and additional defects were added with repair recommendations, but no serious deficiencies or critical findings were present.

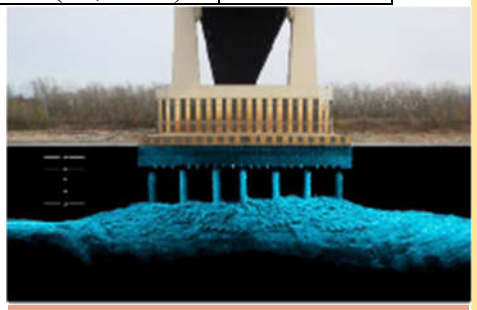
M&N is providing inspection services on complex and movable bridges

- M&N performed the in-depth, routine, and fracture critical NBIS inspection of the Horace Wilkinson Bridge, specifically to inspect the main truss spans above the guardrail. Professional rope access techniques were used to safely access each non-redundant steel tension member. Element quantities were recalculated, and additional defects were added, but no serious deficiencies or critical findings were present. This is the first inspection to be completed without requiring lane closure; its success will afford consultant use for all biennial inspections.
- M&N performed the in-depth, routine, and fracture critical inspections of the Greater New Orleans Bridges and the Green Bridge, specifically to inspect the main truss spans. Professional rope access techniques were used to safely access each non-redundant steel tension member. Element quantities were updated, and additional defects were added with repair recommendations.
- M&N performed the in-depth and routine inspection of the Luling Bridge, specifically to inspect all bladders at the upper Gensui Dampers and at the lower friction dampers at 72 cables. Professional rope access techniques were used to safely access each cable within arm's reach.

Firm members involved include: Chace Hulon, PE; Steven Armstrong, PE; Jeffrey Gazarek; Joshua Martinez, PE

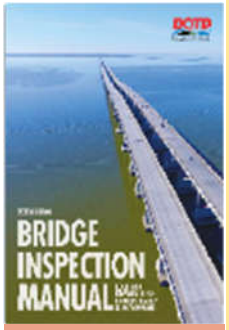
Firm name	**Moffatt & Nichol, Inc.**		Past Performance Evaluation Discipline(s)*	Bridge	
Project name	**2017 Retainer Contract for Underwater Bridge Inspections, Statewide**		Firm responsibility (prime or sub?)	Prime	
Project number	4400009104	Owner's name	Louisiana Department of Transportation and Development		
Project location	Louisiana		Owner's Project Manager	Haylye Brown, PE	
Owner's address, phone, email	1212 East Highway Drive, Baton Rouge, Louisiana 70802 / 225.379.1500 / jasmine.galjour@la.gov				
Services commenced by this firm (mm/yy)	06/17	Total consultant contract cost ($1,000's)	$1,346		
Services completed by this firm (mm/yy)	12/21	Cost of consultant services provided by this firm ($1,000's)	$980		

In June 2017, Moffatt & Nichol (M&N) began a four-year statewide retainer contract with LADOTD to provide Levels I, II, and III NBIS underwater bridge inspections throughout Louisiana. All inspections were completed in accordance with current FHWA, CFR, AASHTO, and LADOTD standards and guidelines. M&N has performed over 215 underwater bridge inspections under this contract and over 900 inspections total. For each inspection, M&N provided a detailed inspection report within 30 days and entered inspection data into LADOTD's asset management tool (AssetWise). As part of M&N's quality control process, each inspection report was reviewed a minimum of three times, with subsequent reviews performed by team members with increasing levels of experience/ qualifications.



M&N provide Levels I, II, and III NBIS underwater bridge inspections throughout

Of particular note, M&N was tasked with the development of the first comprehensive Bridge Inspection Manual (BIM) for LADOTD Bridge Program. Chace Hulon, PE, was Chief Editor. The BIM is designed as a single, centralized reference manual and aligns the goals of the Bridge Inspection Office Headquarters with all nine DOTD districts. It also allows for better communication and quality management between the DOTD project managers, local bridge owners, and consultants.



M&N developed LADOTD's first comprehensive

The BIM was designed to be used electronically on tablets as a reference file accessible to all DOTD bridge inspection team leaders. It includes nine chapters intuitively ordered in a systemic fashion with hyperlinks throughout for quick referencing to vital documents. It also allows for documented annual revisions or critical updates following federal policy changes.

Moffatt & Nichol compiled all DOTD reference material, outlined the BIM, held routine (weekly) progress meetings with DOTD PM, FHWA representative, & subject matter experts on the committee, provided statewide programmatic guidance with a national perspective, verified compliance with FHWA's 23 National Bridge Inspection Program Metrics, & presented BIM at a DOTD statewide conference.

Firm members involved include: Chace Hulon, PE; Steven Armstrong, PE; Joshua Martinez, PE; Jeffrey Gazarek

Firm name	**Moffatt & Nichol, Inc.**	Past Performance Evaluation Discipline(s)*	Bridge
Project name	**Retainer Contract for Underwater Bridge Inspections, Statewide**	Firm responsibility (prime or sub?)	Prime
Project number	4400003533	Owner's name	Louisiana Department of Transportation and Development
Project location	Louisiana	Owner's Project Manager	Haylye Brown, PE
Owner's address, phone, email	1212 East Highway Drive, Baton Rouge, Louisiana 70802 / 225.379.1500 / jasmine.galjour@la.gov		
Services commenced by this firm (mm/yy)	03/14	Total consultant contract cost ($1,000's)	$3,243
Services completed by this firm (mm/yy)	12/17	Cost of consultant services provided by this firm ($1,000's)	@2,822

As part of the previous five-year retainer contract, Moffatt & Nichol has performed 10 task orders related to underwater bridge inspections throughout Louisiana. Teams of ADCI-certified engineer- divers provided Level I, II, & III underwater inspections in accordance with the National Bridge Inspection Standards and LADOTD PONTIS Inspection Manual. 687 bridges were inspected statewide. Bridge types inspected consisted of movable swing span bridges, bascule bridges, truss bridges, timber stringer bridges, cable-stayed bridges, single and multi-span girder bridges up to 8 miles in length, constructed of concrete, steel and timber materials. Site conditions included salt, brackish, and freshwater and riverine conditions with varying levels of current having low to no visibility.

NBIS underwater bridge inspections performed for LADOTD

Underwater Acoustic Imaging (UAI) was performed in response to emergency investigations following major flood events to inspect scour around the substructure units.

Report submittals included a description of each structure and elements inspected and existing conditions, shoreline conditions, presence of debris in the waterway, with NBIS ratings for Item 60 - Substructure and Item 61 – Channel condition, element level condition states for all elements inspected, and recommendations for repair and maintenance. Three Quality Control reviews were performed for each bridge report by the inspection team and Quality Assurance reviews were performed on 5% of the reports by an independent NBIS team leader.

Firm members involved include: Chace Hulon, PE; Steven Armstrong, EI; Josh Martinez, PE; Jeffrey Gazarek

Firm name	Forte and Tablada, Inc.		Past Performance Evaluation Discipline(s)*	Survey	
Project name	Belle Chasse Bridge and Tunnel Replacement		Firm responsibility (prime or sub?)	Prime	
Project number	S.P. No. H.004791.5	Owner's name	DOTD		
Project location	Plaquemines Parish, LA		Owner's Project Manager	Stanley Ard	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802, 225-379-1292, Stanley.Ard@la.gov				
Services commenced by this firm (mm/yy)	05/17	Total consultant contract cost ($1,000's)	$401.7		
Services completed by this firm (mm/yy)	10/18	Cost of consultant services provided by this firm ($1,000's)	$249.6		

Forte and Tablada provided comprehensive topographic surveying services for the Belle Chase Bridge and Tunnel Replacement project for LA DOTD. Included in this work was a survey performed utilizing traditional methods, terrestrial laser scanning of roadway surfaces, and multi-beam 3-D hydrographic surveying.

The primary challenge for this project was to complete the topographic survey, while not shutting down travel on the bridge nor tunnel. In order to perform a traditional topographic survey, the feature being measured must be in physical reach of the equipment operator. Forte and Tablada was able to overcome this challenge through the use of remote sensing technology. Remote sense was used in the form of LiDAR for the bridge and overpass, and multi-beam sonar for the water bottom and top of tunnel. A robot was fabricated by Forte and Tablada staff to ride the bridge rail with the LiDAR scanner in order to avoid lane closures and improve the safety of equipment operators.

Laser Scan and Hydrographic Survey of Belle Chasse Bridge and Tunnel project area

Project Team:
Joey Coco, P.E., Principal-In-Charge
Will Fontenot, P.L.S., Surveyor-in-Charge
Jerry Middleton, Jr., P.L.S., Party Chief/Technician
Steve LeBlanc, P.L.S., Party Chief/Technician
Jonathan Coco, Adv. Measurements Dept. Leader
Ross Wilson, P.L.S., Project Manager
Brent Campbell, Senior Technician
Tommy Lake, Party Chief

Firm name	Forte and Tablada, Inc. FORTE & TABLADA		Past Performance Evaluation Discipline(s)*	Bridge	
Project name	Retainer Contract for Off-System Complex Bridge Load Rating – TO1		Firm responsibility (prime or sub?)	Prime	
Project number	S.P. No. H.009859.5	Owner's name	DOTD		
Project location	Statewide, LA		Owner's Project Manager	Dana Feng, P.E.	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802, 225-379-1200, Dana.Feng@LA.gov				
Services commenced by this firm (mm/yy)	01/18	Total consultant contract cost ($1,000's)	$1,316.8		
Services completed by this firm (mm/yy)	02/19	Cost of consultant services provided by this firm ($1,000's)	$1,136.4		

As part of a Load Rating retainer contract with DOTD, Forte and Tablada was tasked with inspecting and load rating 12 complex off-system complex bridges statewide. The type of bridges included nine (9) movable bridges (including vertical lift and swing-spans), a steel truss bridge, and two (2) ferry access bridges that were composed of steel truss, movable, and pontoon spans. Where existing plans were not available, 3-D laser scanning was utilized to capture complicated geometry and to assist in the load rating and in the development of bridge load rating plans. The inspection also included the use of an ultrasonic thickness gage to verify member thickness, as well as detailed measurements to determine connection details. The scope of work also included the submittal of an Inspection Report and a Load Rating Report in accordance with the requirements of the DOTD Bridge Design and Evaluation Manual (BDEM).

St. Claude Bridge for Port of New Orleans Inspected and Rated

Project Team:
Joey Coco, Jr., P.E. - Principal-in-Charge
Joffrey Easley, P.E. - Project Manager
Jason Fennell, P.E.
Levi Yantis, P.E.
Brandon Bollich, E.I.

Firm name	KTA-Tator, Inc.		Past Performance Evaluation Discipline(s)*	Bridge	
Project name	I-310 Luling Bridge and US 90 Morgan City Bridges		Firm responsibility (prime or sub?)	Sub	
Project number	44000005960, TO 2	Owner's name	DOTD (HNTB Corporation – prime consultant)		
Project location	Luling and Morgan City, LA		Owner's Project Manager	James P. Gregg, HNTB	
Owner's address, phone, email	10000 Perkins Rowe, Suite 640, Baton Rouge, LA 70810 225-368-2815 jgregg@HNTB.com				
Services commenced by this firm (mm/yy)	02/17	Total consultant contract cost ($1,000's)		$5,000	
Services completed by this firm (mm/yy)	05/17	Cost of consultant services provided by this firm ($1,000's)		$27	

The I-310 Bridge over the Mississippi River is referred to as the Hale Boggs Bridge or the Luling Bridge. The bridge is a cable stayed design with two main towers; two large box girders run along the underside of the entire bridge deck. The bridge members, including the towers, box girders, and cross girders, are fabricated from weathering steel. The bottom six feet of the tower interiors and the interiors of the cross girders are coated. In 2017, under HNTB's task order agreement, KTA performed a corrosion assessment of the weathering steel towers and girders, performed laboratory testing, and prepared a report detailing the conditions found and providing recommendations for the remediation of the corrosion problems.

In 2017, KTA performed a corrosion assessment of the US 90 Morgan City Bridge over the Atchafalaya River located in Morgan City, Louisiana. Ramp A, Ramp F, span over LA 182, Ramp I, Ramp J, span over Victor II, Crook Collins Canal, Levy Canal, East approach, and West approach spans were also included in the assessment. KTA also performed laboratory testing and prepared a report detailing the conditions found and providing recommendations for the remediation of the coating problems.

KTA Personnel: Robert S. Lanterman

Firm Name:	Stanley Consultants, Inc.		Past Performance Evaluation Discipline(s)*		Road
Project Name:	1-12: LA 1077 to US 190		Firm Responsibility (prime or sub?)		Prime
Project Number:	H.011137.5	Owner's Name:	DOTD		
Project Location:	St. Tammany Parish, LA		Owner's Project Manager:	Jacob Fusilier, PE, PMP	
Owner's Address, Phone, Email:	1201 Capitol Access Rd, Baton Rouge, LA, 225.379.1185, jacob.fusilier@la.gov				
Services commenced by this firm (mm/yy):	09/16	Total consultant contract cost ($1,000's):			$2,755
Services completed by this firm (mm/yy):	Ongoing	Cost of consultant services provided by this firm ($1,000's):			$2,200

This project involves engineering and related services required to widen and rehabilitate I-12 to the median side from a four-lane freeway to a six-lane freeway section in both the East and West bound directions, including auxiliary lanes connecting Pinnacle Parkway across the Tchefuncte River to US 190. The project begins just west of LA 21 and ends just west of US 190 for approximately 3.50 miles. The LA 21 Interchange is included within this project. The US 190 Interchange is not included with this project.

As the Prime Consultant, the Stanley Consultants led team provided all engineering services required for preliminary and final roadway design plans, preliminary and final bridge design plans geotechnical services, Independent Contractor Esti-mate (ICE) and Critical Path Modeling (CPM). This project highlights our previous successes in designing complex maintenance of traffic plans. Members involved that are used in this proposal:

- Jesse Tisdale, PE – Project Manager
- Adam Fields, PE – Lead Designer
- Blake Roussel, PE, PMP – QA Reviewer
- Jackie Wood – Designer
- Jared Blohowiak – Engineer Intern
- Kayla Lafitteau – Engineer Intern

Firm Name:	Stanley Consultants, Inc.		Past Performance Evaluation Discipline(s)*		Road
Project Name:	LA 30 Roundabouts at Tanger I-10		Firm Responsibility (prime or sub?)		Prime
Project Number:	H.010960.5	Owner's Name:	DOTD		
Project Location:	Ascension Parish, LA		Owner's Project Manager:	Joshua Harrouch, PE, PTOE	
Owner's Address, Phone, Email:	1201 Capitol Access Rd, Baton Rouge, LA, 225.242.4640, Joshua.harrouch@la.gov				
Services commenced by this firm (mm/yy):	03/17	Total consultant contract cost ($1,000's):		$645	
Services completed by this firm (mm/yy):	12/21	Cost of consultant services provided by this firm ($1,000's):		$475	

This project involves engineering and related services to develop construction plans for roundabouts at the intersection of LA 30 and Tanger Blvd, and at the Eastbound and Westbound ramp termini at the LA 30 and I-10 Interchange in Gonzales, LA.

Stanley Consultants facilitated a predesign kickoff meeting, coordinated a topographic survey, and SUE services between the DOTD and multiple subconsultants. Early and often coordination with the Department's Traffic and Road Design Sections has resolved concerns relating to constructability issues and roundabout operations. Design decisions, criteria, and geometry have been developed to suite the large retail center's average daily traffic and heavy trucking presence.

As the Prime Consultant, the Stanley Consultants led team provided all engineering services required for preliminary and final roadway design plans. This project highlights our previous successes in designing complex maintenance of traffic plans.

Members involved that are used in this proposal:

- Jesse Tisdale, PE – Project Manager
- Blake Roussel, PE, PMP – QC Reviewer
- Adam Fields, PE – Lead Designer
- Jackie Wood – Designer
- Jared Blohowiak – Engineer in Training
- Kayla Lafitteau – Engineer in Training

Firm name	**Vectura Consulting Services, LLC**			Past Performance Evaluation Category(ies)*	TM
Project name	Belle Chasse Bridge & Tunnel Replacement PPP			Firm responsibility (prime or sub?)	sub
Project number	H.004791	Owner's name	DOTD		
Project location	Belle Chasse, LA			Owner's Project Manager	Nickolas Olivier
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802, 225-379-1133, Nicholas.olivier@la.gov				
Services commenced by this firm		04/19	Total consultant contract cost ($1,000's)		unknown
Services completed by this firm		03/21	Cost of consultant services provided by this firm ($1,000's)		$212

Vectura is subconsultant to provide the traffic engineering services for the Belle Chasse Bridge & Tunnel Replacement Project for improvements along LA 23. This is the first Public Private Partnership (PPP) awarded by DOTD. Vectura is responsible for the following tasks:

- Preliminary and final traffic studies
  - Forecast volumes were based on expected growth consistent with local zoning and planning efforts as well as the Regional Planning Commission travel demand model
- Temporary and final traffic signal plans
- Assist the Prime with Traffic Management Plan (TMP)
- Response to request for information (RFI's)
- As-built plans for the traffic signals.

<u>Team members:</u> Brin Ferlito, Laurence Lambert, Prasanth Malisetty, Reece Rodrigue, & Bridget Robicheaux (100% performed in Louisiana)

Firm name	Ardaman & Associates, Inc.		Past Performance Evaluation Discipline(s)*		Geotech
Project name	**MacArthur Interchange Completion II**		Firm responsibility (prime or sub?)		Sub
Project number	H.011309.5		Owner's name	LADOTD	
Project location	Jefferson Parish, LA		Owner's Project Manager	Li Yang	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802; 225.379.1100; Li.Yang@la.gov				
Services commenced by this firm (mm/yy)	10/15	Total consultant contract cost ($1,000's)			$6,319
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)			$666

The second phase (Phase II) of the MacArthur Interchange consists of the horizontal and vertical design for widening South Frontage Road from Peters Road to Manhattan Boulevard, including four eastbound on- and off-ramps of the Westbank Expressway in Jefferson Parish, Louisiana. The following are the Westbank Expressway ramps included in the design:

- Ramp 4M – Off-ramp to Manhattan Boulevard; and
- Ramp 5M – On-ramp from Peters Road.

The existing Westbank Expressway is a pier-supported, elevated highway. The piers are supported on pile group foundations. The foundation construction of the first phase of the interchange was completed in 2016, incorporating non-displacement steel H-piles. The Louisiana Department of Transportation and Development (LADOTD) originally planned to use a similar foundation type for the Phase II design. However, due to congestion and potential movement of the existing foundation resulting from the new foundations, post-grouted drilled shafts were deemed more appropriate. Continuous Flight Auger (CFA) or sometimes termed Auger-Cast-in-Place (ACIP) piles are expected to be used for lightly loaded structures or limited access areas where only smaller equipment can be used. Ardaman's geotechnical field investigation consisted of approximately 26 deep and shallow borings and 23 Cone Penetrometer (CPT) soundings (including field reconnaissance, gaining rights of entry, completing utility location, GPS location and water table elevations), laboratory testing, and geotechnical engineering analyses and design for this project.

Firm Members

Robert Jewell, Megan Bourgeois, Dr. Albert Ayenu-Prah, Robert Rousset, Jim Porter, Chandler Willis, Jarmon King

Firm name	Ardaman & Associates, Inc.			Past Performance Evaluation Discipline(s)*	Geotech
Project name	**I-10 Widening (LA 415 to Howard Street)**			Firm responsibility (prime or sub?)	Sub
Project number	H.004100.5-2	Owner's name	LADOTD		
Project location	East Baton Rouge Parish, LA			Owner's Project Manager	Kristy Smith
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802; 225.379.1100; Kristy.Smith2@LA.GOV				
Services commenced by this firm (mm/yy)	08/19	Total consultant contract cost ($1,000's)			$666
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)			$589

The project consists of widening of the East and Westbound lanes, elevated structures, and construction of interchange and ramps on Westbound lanes along I-10 between LA 415 and Howard Street spanning approximately 1 mile in East Baton Rouge Parish, Louisiana. Ardaman conducted a field exploration, laboratory testing, and associated engineering services to provide LADOTD with geotechnical information for use in the design of the new structure widenings.

The field investigation was conducted in accordance with LADOTD specifications, includes a field reconnaissance program which entails gaining access and rights of entry, completing utility locations, locating/staking boring locations, and developing a plan for the initial mobilization of equipment to the site and mobilization between sites. A total of 55 deep borings will be performed to depths of 75 to 120 feet and 15 cone penetrometer (CPT) soundings below the existing ground surface (one boring at each abutment location and one completed at least every 100 feet on the centerline of the alignment of I-10 for the entire length of the structure). Global Positioning System (GPS) data will be collected at each soil boring and CPT location along with groundwater level readings. Electrical resistivity imaging was performed along the entire alignment to allow for a more complete soil characterization between boring locations.

Laboratory testing was performed based on LADOTD standards included strength and appropriate classification testing. Engineering services included supervision of the field program, development of the laboratory testing program, quality control review, and preparation and submittal of soil boring logs in the LADOTD format and geotechnical data report.

Firm Members

Megan Bourgeois, Robert Jewell, Dr. Albert Ayenu-Prah, Robert Rousset, Jim Porter, Chandler Willis, Jarmon King

Firm name	Gulf South Research Corporation		Past Performance Evaluation Discipline(s)*	Environmental	
Project name	**I-12 to Bush Wetland Jurisdictional Determination Update**		Firm responsibility (prime or sub?)	Prime	
Project number	H.004985	Owner's name	LA DOTD		
Project location	St. Tammany Parish, Louisiana	Owner's Project Manager	Brendon Gaspard		
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70804; (225) 242-4501; Noel.Ardoin@la.gov				
Services commenced by this firm (mm/yy)	02/13	Total consultant contract cost ($1,000's)	$348		
Services completed by this firm (mm/yy)	12/19	Cost of consultant services provided by this firm ($1,000's)	$348		

GSRC was tasked to identify wetland mitigation opportunities for the I-12 to Bush roadway corridor in St. Tammany Parish, Louisiana. Properties of sufficient size and appropriate habitat type were identified in the watershed, and GSRC communicated with landowners to determine if properties were available for mitigation use. GSRC coordinated with LADOTD, USFWS, USACE, the Louisiana Department of Wildlife and Fisheries, and the U.S. Environmental Protection Agency. A total of five properties were recommended as potential mitigation sites.

As part of the project, **GSRC completed a wetland jurisdictional determination update** for the I-12 to Bush roadway corridor. The project corridor is approximately 19.5 miles long by 250 feet wide or approximately 600 acres. The project involved an evaluation of the original wetland jurisdictional determination to determine if the data and information in the original wetlands finding report were still valid. The project area consisted of a mix of bottomland hardwood forest, cypress/tupelo swamp, pine plantation, and disturbed riparian habitat. Field investigations were conducted to update the presence and extent of previously identified jurisdictional wetlands in the project area. The site was traversed using meandering pedestrian transects. Sample plots were established within each vegetation community. Wetland delineation data forms, containing information regarding the presence or absence of hydric soils, hydrophytic vegetation, and wetland hydrology sufficient to support the establishment of a wetland boundary, were completed for the project area.

During the examination of the original data and maps, GSRC identified data gaps that could potentially change the original determination. GSRC collected additional field data along the corridor in addition to revisiting the original sample points. Additionally, GSRC prepared a wetland findings report and updated wetland map for submittal to the USACE, New Orleans District. The wetland findings report classified each potential jurisdictional determination in detail for use in determining mitigation requirements.

Howard Nass, Josh McEnany, Beau Rapier Lauren Solomon and Christy Guempel were involved with this project.

18. Approach and Methodology:

SDR has been serving DOTD as a prime contractor on multiple IDIQ contracts over the past 15 years in addition to developing the DOTD Bridge Design and Evaluation Manual and the LG prestressed girder design standards. Under previous IDIQ contracts, SDR prepared preliminary and final rehabilitation plans for six major bridges (ex. H.011484—US 80 Red River Bridge, H.011487—LA 182 over Berwick Bay, H.010498—Luling Bridge, H.002281—LA 66 Big Bayou Sara Bridge, and H.009859.5—Mermentau Bridge (a swing truss), in addition to numerous traditional bridge rehabilitation and replacement projects.

Team Composition: **SDR** will be assisted by **Moffatt & Nichol** (M&N) for performing bridge & ancillary (sign trusses, fender systems, etc.) inspection services. Founded in 1945, M&N has performed NBI bridge inspections throughout the United States and internationally. SDR and M&N have over 20 NBIS bridge inspectors available for this project who have previously conducted in-depth inspection of over thirty major complex bridge crossings for DOTD. In addition to NBIS level inspection, M&N will perform assigned tasks related to NBIS underwater bridge inspection for submerged elements and underwater acoustic imaging to include both multi-beam and side scan hydrographic surveys. **Forte and Tablada** (F&T) will provide any required title work including title research and reports, boundary surveying, topographic surveying, and 3D laser scanning in addition to construction-related surveying services. F&T has a proven record of utilizing the latest remote sensing technology, including a 360-degree mobile imaging camera, a 24-foot boat with a mounted R2Sonic 2022 Multibeam Echosounder for underwater point cloud imaging, and an 18-foot boat with single beam hydrographic surveying capabilities. F & T has the personnel and equipment to measure out-of-reach bridge components efficiently and accurately without costly specialized access teams.

KTA with the largest pool of Independent NACE Certified & SSPC-QP 5 Inspectors in the US will provide coating inspection and assessment of surface preparation and coating systems. **TranSystems,** for more than 55 years, has been recognized nationally as a in design/rehabilitation and inspection of movable bridges, will conduct the mechanical and electrical inspections required for movable bridges, which shall comply with AASHTO Movable Bridge Inspection, AASHTO Evaluation and Maintenance Manual, and DOTD manuals and guidelines.

Stanley Consultants will provide roadway and lighting design for preliminary and final plans. **Vectura** Consulting services (DBE) will provide traffic engineering, traffic control design, data collection and Transportation Management Plan (TMP) development.

Both Stanley and Vectura are familiar with DOTD roadway design and traffic control requirements. **Ardaman** with their extensive DOTD experience will provide any required geotechnical services. **Gulf South Research Corporation**, GSR will provide environmental and permitting services as required.

Concurrent tasks and speed of execution: SDR's team composition allows for sufficient staff to perform multiple large tasks concurrently with multiple design, inspection, and surveying teams as shown on the staffing organization chart.

Repair/Rehabilitation & Accelerated Bridge Construction (ABC), The main challenge for a rehabilitation project is the selection of appropriate repair/strengthening methodology that could limit traffic interruptions and excessive bridge closure. Limiting impact could be enhanced through the selection of the bridge elements and construction methods. The suitability of accelerated construction techniques should be considered to reduce construction time and minimize impact on public. SDR has performed a considerable number of projects utilizing ABC, having pioneered the use of advanced Carbon Fiber Reinforced Polymer, CFRP, in bridge rehabilitation in the early 90's. SDR has completed over 120 repair projects utilizing these innovative techniques. An example is the rehabilitation of H.013450—LA 27 I-10 Overpass where CFRP repair of concrete elements was performed and heat straightening of steel beams was used for the first time in Louisiana. Other similar projects include H.013378.5—I-10 East at the High-Rise Fire Damage Repair, and H010016—US 11 over Lake Pontchartrain. All these examples included in-depth inspection, rapid assessment, development of rehabilitation plans and construction support.

Emergency Response: SDR has an established emergency response plan for inspection and structural damage assessment that has been used and refined over 20 years for rapid assessment of bridges. In- house designed engineering assessment software programs installed on laptops are used

for on-the-fly structural analysis and assessment of existing damage due to impact, flooding, and any other unforeseen circumstances. The ability for rapid assessment guides the bridge owners in their decision to open, close or limit access to a certain type of vehicle.

Customized Software Programs: SDR offers unique abilities to develop user customized bridge evaluation/analysis software based on our clients' needs. One perfect example is the influence line program (COMPSTIL2) developed for DOTD to assist engineers in the load rating and permitting of complex bridges. The software incorporates a SQL database and can load rate multiple bridges with different vehicles in a single quick run and generate a comprehensive PDF report within minutes. The program also has the capability to perform LRFR, LFR, and ASR ratings for superstructures as well as substructures with no limit on structure types.

Experience of Project management Team; SDR PM Dr. Seliem, and Dr. Liang, SDR deputy PM, have proven records of serving efficiently as project managers on multiple IDIQ contracts over the past 15 years. Both will ensure consistent and clear communication to keep DOTD abreast of any schedule changes and timely overall project progress.

Approach to Scope of Services

IDIQ Contract: An IDIQ contract consists of various task orders with specific work scope, budget, and schedule. The main scope of each task is specific and varies based on the type of service required by DOTD and could include one or more types of services as stated in the RFP. When necessary, MOT plans will be coordinated with and submitted to the district where work is being performed.

Upon receiving task order, SDR's team will review available data and determine inspection type & access method (if required), bridge type, geographic area, railroad impacts, if any, and urgency, as determined by DOTD PM. A tentative schedule will be developed optimizing labor and expenses. If railroad permits and/or TTC scheduling are required, obtaining these permits will begin immediately with NTP in-hand.

Kickoff Meeting

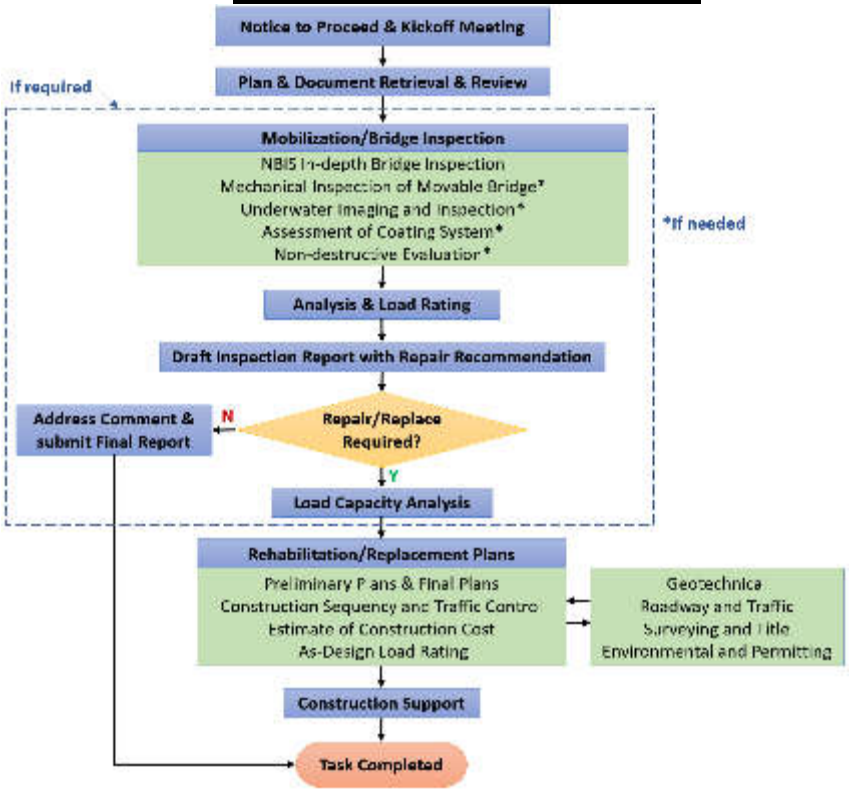
Prior to the kickoff meeting: 1) coordinate with DOTD PM on date, time and required attendees, 2) request for review all available and relevant bridge data including prior bridge inspection/load rating reports, 3) investigate maintenance of traffic requirements, 4) prepare tentative work plan and schedule., 5) prepare Quality Control Plan for the task, 6) prepare an agenda for the kickoff meeting and submit all relevant information to DOTD PM for review and distribution to attendees for discussion during the kickoff meeting.

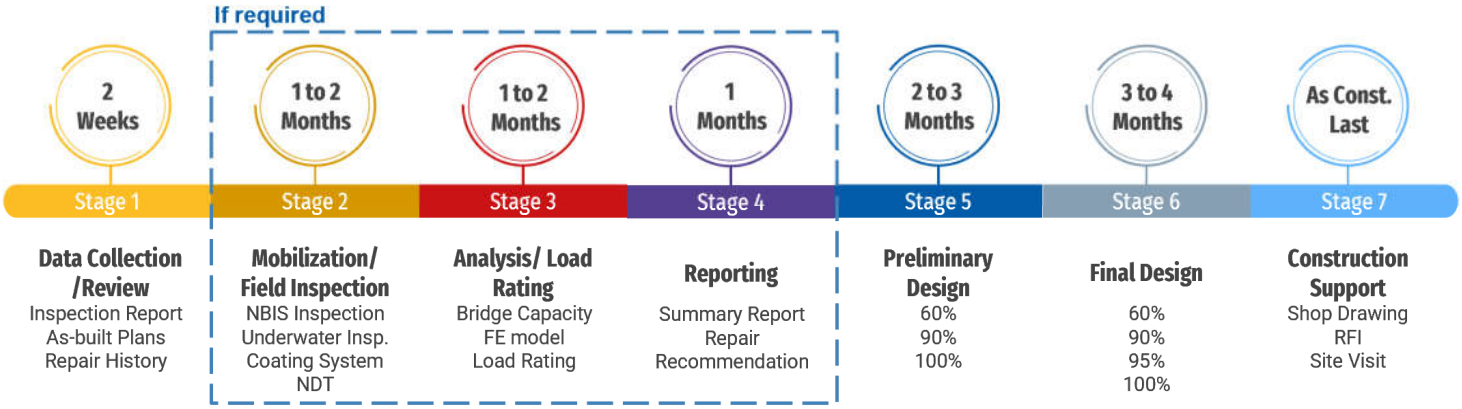
The kickoff meeting will be used to: 1) establish clear understanding of the project goals and discuss any DOTD and Parish concerns to be addressed in terms of location, access, and MOT, if required, 2) determine the frequency for coordination progress meetings and develop line of communication, 3) discuss and finalize proposed work plan, QC plan and work schedule.

Based on the comments from the kickoff meeting, a refined work plan, task schedule and QC/QA process plan will be submitted to DOTD PM for approval prior to starting work on the assigned task.

An example of a possible single task in an IDIQ contract is represented by the flowchart and schedule shown below.

Flowchart for Single Typical Task





At the conclusion of the example task, a report is prepared and submitted to DOTD PM containing recommendations as to any needed minor, replacement/rehabilitation, load capacity analysis, and/or maintenance functions related to observed deficiencies and significance of existing deteriorations. If replacement/rehabilitation are recommended and approved by DOTD, the Consultant may be assigned a task for preparing replacement/rehabilitation plans under a supplemental agreement. Preparation of replacement/rehabilitation plans may require surveying, title work, environmental permitting, and geotechnical services, and will be performed by the appropriate members of the project team.

Inspection: our team will review the bridge-specific inspection procedures for opportunities to improve efficiency and reduce traffic impacts. Access methods and associated equipment for achieving arms-length reach of all components shall be identified and utilized. Updates will be discussed with DOTD and, if necessary, an updated inspection procedure document will be submitted for DOTD's approval.

Prior to field inspection, arrangements shall be made to have the bridge thoroughly cleaned to remove dirt and debris that would inhibit visual observations and measurements. All inspections shall be conducted under the direct supervision of the Inspection Team Leader, who is also responsible for performing quality assurance. Our inspection team leaders have extensive experience utilizing climbing techniques which could minimize/eliminate the need for costly mechanical access and/or traffic control. Should critical findings be identified, they will be immediately brought to the attention of appropriate DOTD personnel. These will be discussed in thorough detail prior to any final decisions being made prior to leaving the site.

Our fully digital project process streamlines all inspection activities and reporting. Field documentation/observation are entered on customized iPads throughout the inspection process ensuring smooth, efficient, and accurate high-quality reports.

Sampling, Instrumentation, and Non-destructive Testing

When there are limited or no construction drawings available, it will be necessary to obtain detailed measurements of structural members and the general configuration of the structure. In addition, locations, distribution, and size of the reinforcement need to be verified using a digital multi-detector and limited invasive testing.

SDR is experienced in NDT conducting ultrasonic testing of steel pins and Ground-Penetrating Radar (GPR) to measure concrete cover, locate the position, and approximate size of embedded steel reinforcement, if required. We have also collected samples of materials for further testing using Pulse Velocity, Impact-Echo, Infrared Thermography, Neutron Probe for Detection of Chlorides, Endoscopes and Videoscopes for post tension inspection, and Chloride Testing on numerous projects.

Recently, SDR inspected and evaluated the concrete deck of five bridges using the ground penetrating radar (GPR) system, including a 4.4-mile-long I-10 Bridge (RC #300240) and a 2.3-mile-long US-90 bridge (Contract No. 4400017310). Air-launched GPR was mounted on a vehicle and traveled at highway speed while scanning the deck, which allowed bridge deck inspection without closing traffic. The collected data

was then processed to generate contour maps showing the location and severity of deficiencies on the deck surface as well as inside the deck. These unique capabilities could be utilized on this project if needed.

Non-destructive Bridge Testing: During the past 4 years, SDR has instrumented and carried out diagnostic/proof load testing of over 30 DOTD bridges to evaluate the actual capacities of superstructures and substructures elements. The work included design of test plan, instrumentation, load testing and development of extensive finite element modeling (FEM). Load test results are used to calibrate the FEM model that is later used to accurately determine the safe carrying capacity of the various bridge elements (super and substructures). This approach resulted in raising the load level or eliminating the need for posting.

Sampling: When paint/coating systems & laboratory analysis are required, **KTA** shall assess the current paint/coating systems for relevant physical and chemical properties of the existing systems and performance. This work includes visual examination of visible coating deterioration/corrosion, surface area take-offs if required, measurement of the total dry film thickness of the existing coating systems, examination of substrate beneath the coating to verify the type of surface preparation previously performed, and to identify potential concerns and proper procedures for treatment, handling, disposal of waste, etc.

Analysis and Load Rating: As-designed, as-built, and condition bridge ratings will be performed by SDR engineers considering inspection findings. In many cases, the analysis might show low bridge load rating values, however, field observation shows no signs of deficiencies. In these cases, a higher level of refined analysis might be necessary to avoid unnecessary repair/strengthening. SDR's engineers are experts in both refined analysis techniques and condition assessment with proven records of performing complex FE analysis on numerus DOTD IDIQ load rating contracts for removing or raising the load posting of deficient bridges.

Design Peer Review: The SDR project team has over 500 years of cumulative experience in the design, detailing, and construction of all types of bridges. This level of experience ensures effective peer review.

Reporting: SDR's team has extensive experience on large inspection projects utilizing AssetWise reporting systems. We build our iPad-based data collection system "working backwards from the deliverable" to ensure data collection is performed in the most efficient manner for smooth entry into AssetWise. **We put additional effort and focus into Repair and Maintenance Recommendations to assure they are accurate, sensible, and appropriate**.

Preliminary and Final Plans: As stated earlier, development of Preliminary and Final Plans can be performed under supplemental task if repairs/replacement are recommended in the report and approved by DOTD. Our team will follow the latest DOTD requirements for development of different milestone submittals for both Preliminary Plans and Final Plans, including the use of the latest approved Greenbook, DOTD EDSMs, Minimum Design Guidelines, Complete Streets Initiative, DOTD and AASHTO Bridge Design Manuals, Bridge Design Technical Memorandums (BDTM), Hydraulics Manual, and DOTD CAD standard submittals. The design requirements are clearly stated in the RFP and our team will conform to all requirements in the development of the preliminary and final plans.

Construction Support: Once a contractor is awarded the project and under contract, the SDR construction support lead, along with select members of the design team, will assist the DOTD Project Manager in addressing and coordinating all construction enquiries.

Quality Control & Assurance: SDR will provide the DOTD PM the internal QA/QC manual for the design team. This manual will be the basis of our team's quality control and quality assurance for each submittal. Our team will also perform independent QC reviews at all submittal milestones by team members who are not directly associated with the progression of the project. These reviewers will ensure that all recommendations are valid and supported by sound engineering judgment. Our team will maintain records of all correspondence between the SDR PM and the DOTD PM.

Electronic Deliverables: SDR's team is experienced in electronic plan delivery in conformance with DOTD Software and Deliverable Standards. All work shall be performed in accordance with all applicable DOTD policies, procedures, and manuals. Design criteria shall be developed and submitted to the Bridge Task Manger for review and approval prior to proceeding with design.

19. Workload:

Firm(s)	Past Performance Evaluation Discipline(s)	State project number	Project name	Remaining unpaid balance**
SDR Engineering Consultants, Inc.	Bridge	H.014608.5	TO # 1- -LBayou Plaquemine BR Rehab	95,500
		H.012485.5	TO # 3 Load Testing & Evaluation	1,090,800
		H.014288.2	TO # 13 LA 82 Mermentau Bridge Rehab	$2,500
		H.009859.5	TO #14 LOAD RATING	$26,000
		H.009730.5	H.009730.5 / TO # 3	$38,900
		H.009859.5	H.009859.5 / TO # 2	$36,400
TranSystems Corporation	N/A	N/A	N/A	$0
Moffatt & Nichol, Inc.	Bridge	H.009730.5	In-Depth Inspection of Complex Bridges, Task Order 4	$252,121
		H.009730.5	In-Depth Inspection of Complex Bridges, Task Order 5	$654,279
		H.009730.5	IDIQ Contract for Underwater Bridge Inspection, Statewide	$726,212
		H.011331.5	LADOTD Inventory and Inspection of Sign Trusses	$420,203
		H.009730.5	LADOTD In-Depth Bridge Inspection, Task Order 3	$473,944
	Data Collection	H.971294.1	LADOTD RIMS	$79,996
Forte & Tablada, Inc.	Bridge	H.012485.1	IDIQ Contract 4400010099, Task Order No. 4 Off System Bridge Load Rating, Statewide	$169,378
		H.012485.1	IDIQ Contract 4400010099, Task Order No. 5 Bridge and Culvert Load testing	$181,695
	Survey	H.014628.5	IDIQ Contract 4400010587, Task Order No. 17 Turn Lanes at Rice Mill	$71,418

		H.014219, H.014222, H.014228, H.014231, H.014236, H.013954, H.013979, H.013985, H.013992, H.013994, H.013995, H.013990	Rural Bridge Replacement Initiative	$545,837
		H.003931.5	IDIQ Contract 443015237 I-10 Calcasieu River Bridge Replacement	$1,975,621
		H.004273.5	DOTD I-49 Connector (Lafayette Regional Airport to I-10/US 167 Interchange)	$197,924
		H.011684	LA 327 Spur: Staring Lane Extension Route LA 327-S	$50,279
		H012072	LA 60 Drain Bridge	$1,428
Stanley Consultants, Inc.	Road	H.011781.5	LA 675 & LA 87 Improvements in New Iberia	$41,647
		H.011137	I-12 (LA 21 to US 190) Widening Design	$11,756
		H.01137 & H.013866	I-12 Widening Construction Support	$33,074
		H.013643.5	LA 951 Roadway Washout Repairs	$1,373
		H.012863.5	Cypress Island Highway	$21,123
	Bridge	H.011137	I-12 (LA 21 to US 190) Widening Design	$11,687
		H.01137 & H.013866	I-12 Widening Construction Support	$16,261

KTA-Tator, Inc.	Bridge	4400013321	IDIQ Contract for In-Depth Bridge Inspection Statewide (sub to HNTB) – KTA has not received any task order assignments on this contract to date.	N/A
		4400013322	IDIQ Contract for In-Depth Bridge Inspection Statewide (sub to Gresham, Smith & Partners) Task Order #4 – In-Depth Inspection of Complex Structures	$59,234
		4400020156	State Project No. H.011965.5, LA 47; IWGO Bridge Rehabilitation (sub to TRC)	$11,294
		4400021515	Contract 3 for Movable Bridges (5); State Project and F.A.P. Nos. H.011991, H.010004, H.012738, H.011974, and H.014191; Iberia and Terrebonne Parishes (sub to TRC)	TBD – Contract Pending
Vectura Consulting Services, LLC	Traffic	H.010616	I-20: LA 544 Overpass Replacement	$4,959
		H.005168.2	New Orleans Rail Gateway Jefferson Highway EA	$52,436
		H.005168.2	New Orleans Rail Gateway Avondale EA	$228,799
		H.007160	EBR Computerized Traffic Signal, Ph VB	$61,450
		H.004791	Belle Chasse Bridge & Tunnel Replacement PPP	$21,999
		H.012030.5	KCS RR Overpasses HBI	$28,026
Ardaman & Associates, Inc.	Geotech	H.009266	I-10 (LA 73 to LA 30) Route I-10 Ascension Parish	$21,050
		H.011309.5	MacArthur Interchange Completion Phase II Route US 90-Z Jefferson Parish	$73,327
		H.012565, H.012891, H.014251, 252, 253, 254, 256, 257	Rural Bridge Replacement – Phase II, Districts 02, 03, 07, 61, 62	$90,277
		H.003370	I-220/I-20 Interchange Improvement and Barksdale Air Force Access Rd	$4,179
		H.004273	I-49 Connector, Lafayette	$619,139
		H.010603.6	Mississippi River Bridge at Vicksburg, MS	$90,293
		H.004791	LA 23: Belle Chasse Bridge and Tunnel (HBI)	$302,731

		H.013897	I-10 / I-12 College Drive Flyover	$352,657
		H.004113	I-12 to Bush LA 3241 (LA 435 – LA40/LA41)	$114,635
		H014217, 218, 225, 228, 233, 236	Rural Bridges Replacement Phase II – Districts 04 & 05	$307,297
		H.04435.5	I-12 to Bush LA 3241 (LA 36-LA 435) Construction	$176,629
		H.004100.5-2	I-10: LA 415 to Essen Lane on I-10 & I-12	$299,407
		H.002244.5	Boudreaux Canal Bridge (LA 56)	$170,295
		H.004100	I-10: CMAR 30% Segment 1 Design	$298,180
		H.014554.6	Boeuf River Bridge (PDA)	$5,699
		H00.1166.6	Caddo Lake Bridge (PDA)	$41,096
		H.012030	KCS Railroad Overpass HBI (US 371)	$32,774
Gulf South Research Corporation	Environmental	4400014188	IDIQ Contract for Cultural Resources Services	$0
		4400015812	IDIQ Contract for Environmental Services Statewide	$0
		40000099	Retainer Contract for Right of Way Forestry	$0

20. Certifications/Licenses:

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

Zhiyong Liang PhD, PE

Project Management Institute

THIS IS TO CERTIFY THAT

Hatem Mohamed Seliem

HAS BEEN FORMALLY EVALUATED FOR DEMONSTRATED EXPERIENCE, KNOWLEDGE AND PERFORMANCE IN ACHIEVING AN ORGANIZATIONAL OBJECTIVE THROUGH DEFINING AND OVERSEEING PROJECTS AND RESOURCES AND IS HEREBY BESTOWED THE GLOBAL CREDENTIAL

Project Management Professional (PMP)®

IN TESTIMONY WHEREOF, WE HAVE SUBSCRIBED OUR SIGNATURES UNDER THE SEAL OF THE INSTITUTE

Project Management Institute.

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Hatem Seliem

has attended

Traffic Control Supervisor Refresher-LA State Specific

Training Course

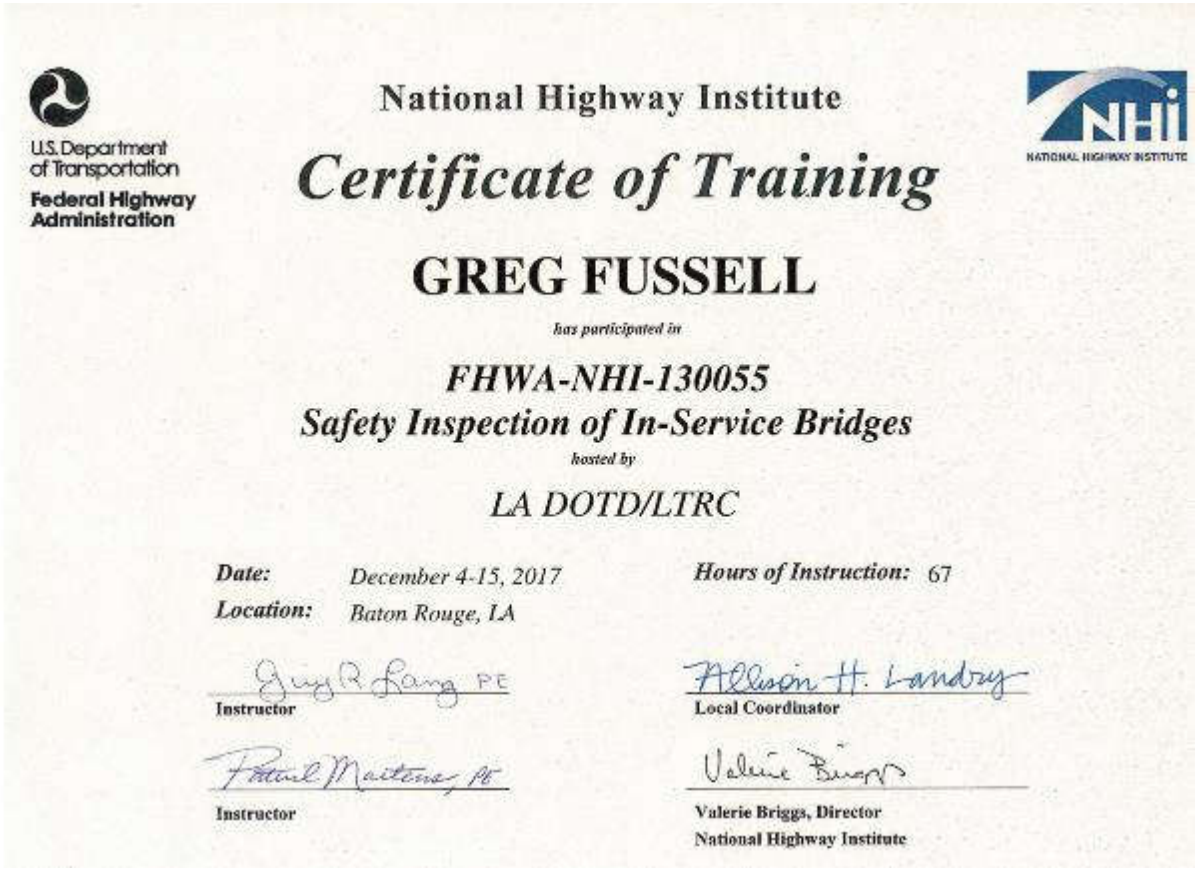
8/7/2020 to 8/7/2020
Date

Vice President of Education and Technical Services

Baton Rouge, LA
Location

President, CEO

ATSSA



U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

Certificate of Training

NHI NATIONAL HIGHWAY INSTITUTE

GREG FUSSELL

has participated in

FHWA-NHI-130055
Safety Inspection of In-Service Bridges

hosted by

LA DOTD/LTRC

Date: *December 4-15, 2017*
Location: *Baton Rouge, LA*

Hours of Instruction: 67

Guy R Lang PE
Instructor

Allison H. Landry
Local Coordinator

Paul Mattews PE
Instructor

Valerie Briggs
Valerie Briggs, Director
National Highway Institute

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

nhi national highway institute

Certificate of Training

OSAMA ELSAAD

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*
Location: *Baton Rouge, LA*

Hours of Instruction: 34

Instructor

Instructor

Allison H. Landry
Local Coordinator

Thomas Harman
Thomas Harman, Director
National Highway Institute

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Osama Elsaad
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

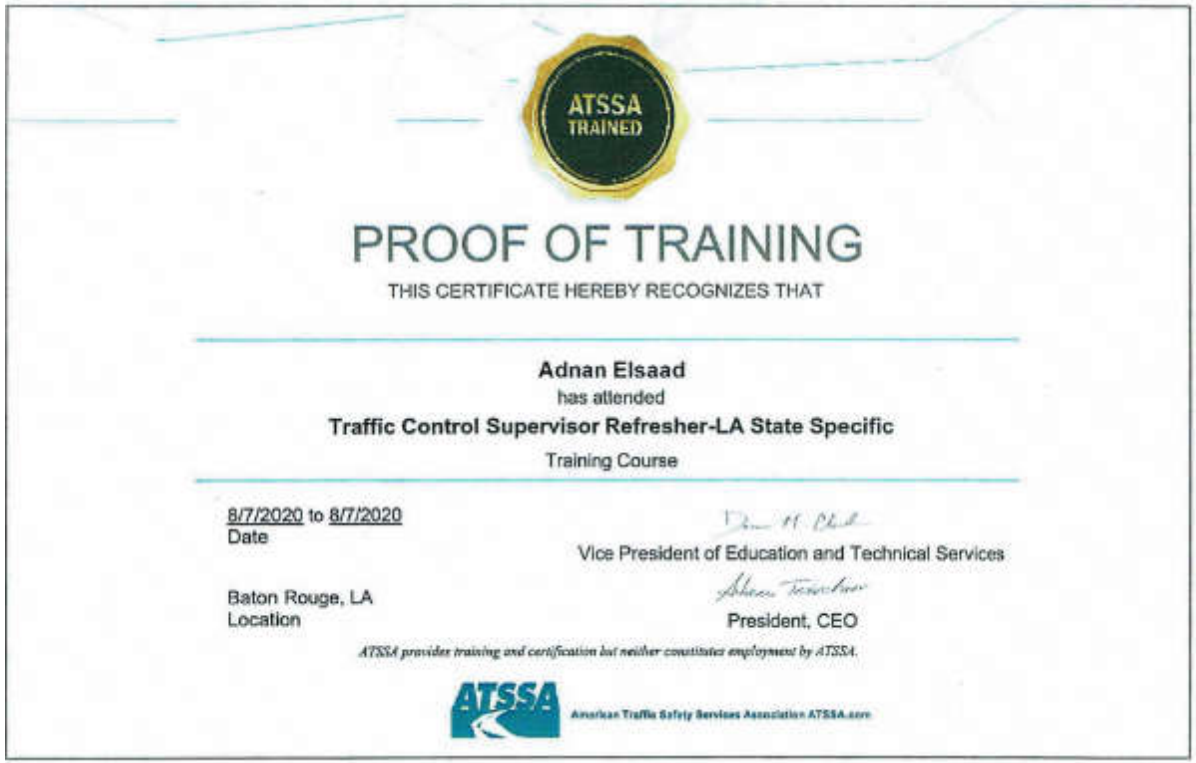
8/7/2020 to 8/7/2020
Date

Baton Rouge, LA
Location

Vice President of Education and Technical Services

President, CEO

ATSSA



ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Adnan Elsaad
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

8/7/2020 to 8/7/2020
Date

Vice President of Education and Technical Services

Baton Rouge, LA
Location

President, CEO

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

ATSSA American Traffic Safety Services Association ATSSA.com

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

national highway institute

Certificate of Training

Ahmed Rageh

has Successfully Completed

FHWA-NHI-130055 Safety Inspection of In-Service Bridges

hosted by

SDR Engineering Consultants

Date: *January 10-21, 2022*
Location: *Tallahassee, FL*

Hours of Instruction: 67

Inspector

Instructor

Local Coordinator

Thomas Harman

Thomas Harman, Director
National Highway Institute

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

nhi national highway institute

Certificate of Training

Andres Rodriguez

has Successfully Completed

FHWA-NHI-130055 Safety Inspection of In-Service Bridges

hosted by

SDR Engineering Consultants

Date: *January 10-21, 2022*
Location: *Tallahassee, FL*

Hours of Instruction: 67

Instructor

Instructor

Local Coordinator

Thomas Harman

Thomas Harman, Director
National Highway Institute

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

nhi national highway institute

Certificate of Training

Jean Pierre Thompson

has Successfully Completed

FHWA-NHI-130055 Safety Inspection of In-Service Bridges

hosted by

SDR Engineering Consultants

Date: *January 10-21, 2022*
Location: *Tallahassee, FL*

Hours of Instruction: 67

Instructor

Instructor

Local Coordinator

Thomas Harman

Thomas Harman, Director
National Highway Institute

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

nhi national highway institute

Certificate of Training

Dylan Boudreaux

has Successfully Completed

FHWA-NHI-130055 Safety Inspection of In-Service Bridges

hosted by

SDR Engineering Consultants

Date: *January 10-21, 2022*
Location: *Tallahassee, Fl.*

Hours of Instruction: 67

Instructor

Instructor

Local Coordinator

Thomas Harman

Thomas Harman, Director
National Highway Institute

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

nhi national highway institute

Certificate of Training

Krishna H. Mehta

has participated in

FHWA-NHI-130056 Safety Inspection of In-Service Bridges for Professional Engineers

hosted by

CHA Consulting, Inc.

Date: *January 24-28, 2022*
Location: *Colonie, NY*

Hours of Instruction: 34

Instructor

Instructor

Local Coordinator

Thomas Harman

Thomas Harman, Director
National Highway Institute

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

nhi national highway institute

Certificate of Training

Nicholas Sprankle

has participated in

FHWA-NHI-130056 Safety Inspection of In-Service Bridges for Professional Engineers

hosted by

CHA Consulting, Inc.

Date: *January 24-28, 2022*
Location: *Colonie, NY*

Hours of Instruction: 34

Instructor

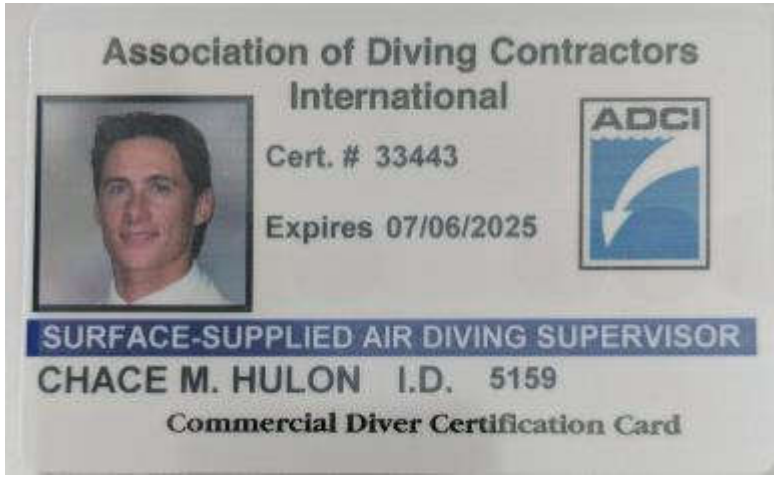
Instructor

Local Coordinator

Thomas Harman

Thomas Harman, Director
National Highway Institute

SDR


Association of Diving Contractors International
Cert. # 33443
Expires 07/06/2025
ADCI
SURFACE-SUPPLIED AIR DIVING SUPERVISOR
CHACE M. HULON I.D. 5159
Commercial Diver Certification Card


CERTIFICATE OF COMPLETION
This certificate is awarded to
CHACE HULON
MARINE ENGINEERING SONAR COURSE - LEVEL ONE
STS
SONAR TRAINING SOLUTIONS
15 June, 2018


National Highway Institute
Certificate of Training
Chace Hulon, PE
FHWA-NHI-130053 Bridge Inspection Refresher Training
Boston Society of Civil Engineers Section/ASCE
Date: October 1-2, 2015
Location: Boston, MA
Hours of Instruction: 18
Michael Davis, P.E.


SOCIETY OF PROFESSIONAL ROPE ACCESS TECHNICIANS
SPRAT
Acknowledges that
CHACE HULON
has demonstrated through practical and written examinations, attainment of SPRAT's Certification Requirements for Rope Access Work, and is therefore
CERTIFIED
Level II Rope Access Technician
SPRAT 0070712
AWARDED: October 28, 2017
Expires: October 28, 2020

Association of Diving Contractors International

Cert. # 62023

Expires 11/18/2025

SURFACE-SUPPLIED AIR DIVER

STEVEN ARMSTRONG I.D. 4740

Commercial Diver Certification Card

I UNITED STATES OF AMERICA XI

DEPARTMENT OF TRANSPORTATION • FEDERAL AVIATION ADMINISTRATION

IV NAME

STEVEN BLAKE ARMSTRONG

V ADDRESS 3004 CANAAN PL
MANDEVILLE LA 70448-6300

VI NATIONALITY USA SEX HEIGHT WEIGHT HAIR EYES

IVa D.O.B. 13 NOV 1990 M 60 215 BROWN BROWN

IX HAS BEEN FOUND TO BE PROPERLY QUALIFIED TO EXERCISE THE PRIVILEGES OF

II REMOTE PILOT

III CERTIFICATE NUMBER 4162104

X DATE OF ISSUE 6 AUG 2019

XIV

VIII ACTING ADMINISTRATOR

U S A

National Highway Institute

U.S. Department of Transportation
Federal Highway Administration

Certificate of Training

Steven Armstrong

FHWA-NHI-130078 Fracture Critical Inspection Techniques for Steel Bridges

Kentucky Transportation Cabinet

Date: March 30-31, 2020 *Hours of Instruction:* 25

Location: Frankfort, KY

Instructor

Instructor

Local Coordinator

Michael Davis, P.E.
Director, National Highway Institute

National Highway Institute

U.S. Department of Transportation
Federal Highway Administration

Certificate of Training

Steven Armstrong

Safety Inspection of In-Service Bridges
FHWA-NHI-130055

Virginia Department of Transportation

Date: March 26-30, 2018 *Hours of Instruction:* 67 Hrs

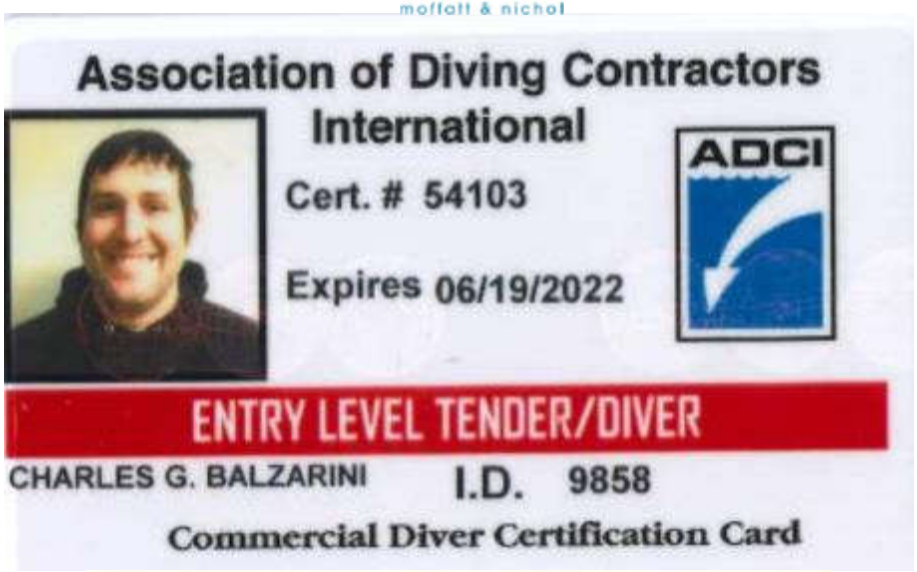
Location: Fredericksburg, Virginia

Instructor

Instructor

Local Coordinator

Valerie Briggs, Director
National Highway Institute



Association of Diving Contractors International

Cert. # 54103

Expires 06/19/2022

ENTRY LEVEL TENDER/DIVER

CHARLES G. BALZARINI I.D. 9858

Commercial Diver Certification Card

SOCIETY OF PROFESSIONAL ROPE ACCESS TECHNICIANS

SPRAT

Acknowledges that

CHARLES BALZARINI

has demonstrated through practical and written examinations, attainment of SPRAT's Certification Requirements for Rope Access Work, and is therefore

CERTIFIED

Level I Rope Access Technician

SPRAT #190894

AWARDED: May 03, 2019

Expires: May 3, 2022

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

Certificate of Training

CHARLES BALZARINI

has participated in

FHWA-NHI-130078 Fracture Critical Inspection Techniques for Steel Bridges

Conducted by

LA DOTD/LTRC

Date: February 26 – March 1, 2019 Hours of Instruction: 25

Location: Baton Rouge, LA

Instructor

Instructor

Local Coordinator

Michael Barker, Director
National Highway Institute

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

Certificate of Training

Charles Balzarini

has participated in

FHWA-NHI-130055- Safety Inspection of In-Service Bridges

Conducted by

Ohio Department of Transportation

Date: 9/26/16 - 10/7/16 Hours of Instruction: 67

Location: Columbus, OH

Instructor

Instructor

Local Coordinator

Valerie Briggs, Director
National Highway Institute

Association of Diving Contractors International

Cert. # 62022

Expires 11/18/2025

SURFACE-SUPPLIED AIR DIVER

JOSHUA MARTINEZ I.D. 0713

Commercial Diver Certification Card

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

Certificate of Training

JOSHUA MARTINEZ

has participated in

FHWA-NHI-130078 Fracture Critical Inspection Techniques for Steel Bridges

held by

LA DOTD/LTRC

Date: February 26 – March 1, 2019 Hours of Instruction: 25

Location: Baton Rouge, LA

Instructor

Instructor

Local Coordinator

Michael Dorka, Director
National Highway Institute

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

Certificate of Training

Joshua Martinez

has participated in

FHWA-NHI-130053 Bridge Inspection Refresher Training

held by

Arizona Department of Transportation

Date: October 22-24, 2019 Hours of Instruction: 18

Location: Phoenix, AZ

Instructor

Instructor

Local Coordinator

Michael Dorka, P.E.
Director, National Highway Institute


Association of Diving Contractors International

Cert. # 58157

Expires 08/08/2022

ADCI

ENTRY LEVEL TENDER/DIVER

MATT BALZARINI I.D. 4799

Commercial Diver Certification Card


SOCIETY OF PROFESSIONAL ROPE ACCESS TECHNICIANS

SPRAT

Acknowledges that

MATTHEW BALZARINI

has demonstrated through practical and written examinations, attainment of SPRAT's Certification Requirements for Rope Access Work, and is therefore

CERTIFIED

Level I Rope Access Technician

SPRAT #190895

AWARDED: May 05, 2019

Expires: May 5, 2022


U.S. Department of Transportation Federal Highway Administration

National Highway Institute

NHI

Certificate of Training

MATTHEW BALZARINI

has participated in

FHWA-NHI-130078 Fracture Critical Inspection Techniques for Steel Bridges

hosted by

LA DOTD/LTRC

Date: February 26 – March 1, 2019 Hours of Instruction: 25

Location: Baton Rouge, LA

Instructor

Instructor

Local Coordinator

Michael Barrie, Director
National Highway Institute


U.S. Department of Transportation Federal Highway Administration

National Highway Institute

NHI

Certificate of Training

Charles Balzarini

has participated in

FHWA-NHI-130055- Safety Inspection of In-Service Bridges

hosted by

Ohio Department of Transportation

Date: 9/26/16 – 10/7/16 Hours of Instruction: 67

Location: Columbus, OH

PE

Instructor

Instructor

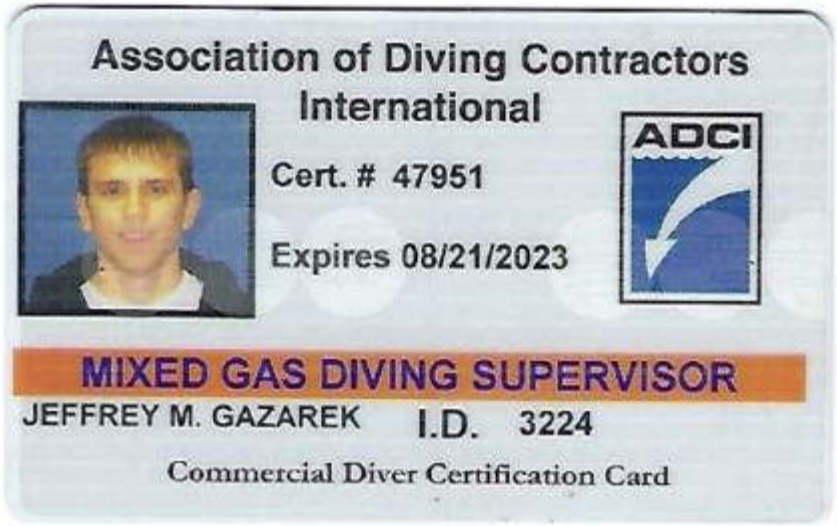
Local Coordinator

Valerie Brigg, Director
National Highway Institute

SDR

Jeffrey Gazarek, ADCI

moffatt & nichol



SDR


Association of Diving Contractors International
Cert. # 57633
Expires 04/09/2023
ADCI
SURFACE-SUPPLIED AIR DIVER
CHRISTOPHER ESCHENBACH I.D. 4036
Commercial Diver Certification Card


SPRAT
ROPE ACCESS TECHNICIAN
Level: I
Christopher Allen Eschenbach
Baton Rouge, LA
USA
SPRAT Cert. # 200515
Certification Date: 7 MAR 2020
Renewal Date: 7 MAR 2023


U.S. Department of Transportation
Federal Highway Administration
National Highway Institute
Certificate of Training
Christopher Eschenbach
FHWA-NHI-130055 Safety Inspection of In-Service Bridges
California Department of Transportation
Date: November 26-December 07, 2018 Hours of Instruction: 67
Location: Sacramento, CA
Instructor
Local Coordinator
Instructor
Valerie Briggs, Director
National Highway Institute

Bradley Holleman, PLS

FORTE & TABLADA

LOUISIANA ASSOCIATED GENERAL CONTRACTORS, INC.
666 North Street – Baton Rouge, LA 70802
Phone: 225/344-0432 * Fax: 225/344-0458
www.lagc.org

March 16, 2021

To Whom It May Concern,

This is to verify that the below listed employee of Forte & Tablada has successfully completed LADOTD required ATSSA Traffic Control Training.

ATSSA Traffic Control Supervisor Refresher Training – January 27, 2021 – Brad Holleman

This letter will serve as temporary proof of training until above listed employees receive their official certificates from American Traffic Safety Services Association (ATSSA).

If there are any questions regarding this issue, please contact Mr. Brett Morgan of LADOTD at Headquarters in Baton Rouge, LA (225-379-1584) or Michael Demouy at the above captioned address.

Best Regards,

Michael Demouy – LAGC Manager

National Highway Institute

Certificate of Training

Joffrey Easley

FHWA - NHI Course No. 130078

Fracture Critical Inspection Techniques for Steel Bridges (3.5 Days)

LA DOTD/LTRC

The American Traffic Safety Services Association

Hereby recognizes that

Joffrey Easley

has attended

Traffic Control Supervisor Refresher-LA State Specific Training Course

4/13/2019 to 4/13/2019

Date

New Orleans, LA

Location

ATSSA

Training & Products Dept. Director

President, CEO

ATSSA

SAFER ROADS SAVE LIVES

Dear Certified Flagger:

Enclosed, please find your card signifying you as a Certified ATSSA Flagger. This card should be carried and presented to employers while performing work on our roadways. Please be aware that the card is not valid without a Photo I.D.

American Traffic Safety Services Association (ATSSA) commends you on your decision to become an ATSSA Certified Flagger. This distinction reflects that you have been trained by the "Leader in Roadway Safety" and also entitles you to be listed on our National Flagger Database. Please review your state requirements for expiration of your flagger card. Also, please inform us of any changes in name or address so we may keep our records up to date.

Once again, ATSSA thanks you for your dedication to ensuring that our work zones are safe and that lives will be saved with proper training. Please visit our website at www.atssa.com for additional training courses or for any of our products created for use in a work zone.

Sincerely,

Director of Training

Laminating the front of your card will: Dual Laminate

AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION

Joffrey Easley

CERTIFIED FLAGGER

American Traffic Safety Services Association

National Highway Institute

Certificate of Training

Joffrey Easley

NHI Course No. 130055 -

Safety Inspection of In-Service Bridges

LA DOTD/LTRC

The American Traffic Safety Services Association

Hereby recognizes that

Joffrey Easley

has attended

Traffic Control Supervisor-LA State Spe

Training Course

04/30/2015

Date

Baton Rouge, LA

Location

ATSSA

Training & Products Dept. Director

President, CEO

Levi Yantis, PE FORTE & TABLADA

National Highway Institute

Certificate of Training

LEVI YANTIS

FHWA-NHI-130053

Bridge Inspection Refresher Training

LA DOTD/LTRC

National Highway Institute

Certificate of Training

LEVI YANTIS

FHWA-NHI-130055

Safety Inspection of In-Service Bridges

LA DOTD/LTRC

SOCIETY OF PROFESSIONAL ROPE ACCESS TECHNICIANS

SPRAT

LEVI YANTIS

Level 1 Rope Access Technician

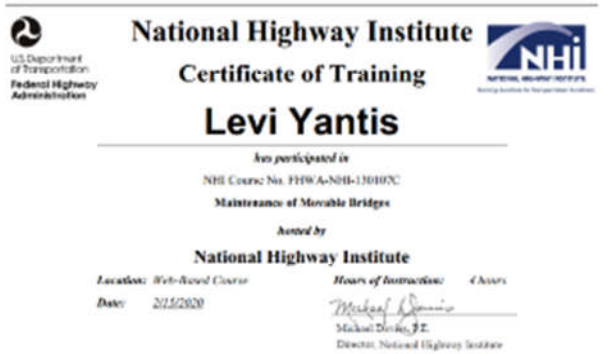
National Highway Institute

Certificate of Training

LEVI YANTIS

FHWA-NHI-130078 Fracture Critical Inspection Techniques for Steel Bridges

LA DOTD/LTRC



National Highway Institute

Certificate of Training

Levi Yantis

has participated in

NHI Course No. FHWA-NHI-130103C

Maintenance of Movable Bridges

hosted by

National Highway Institute

Location: Web-Based Course *Hours of Instruction: 4 hours*

Date: 2/15/2020

The American Society for Nondestructive Testing, Inc
International Service Center
1711 Arlingate Lane, Columbus, Ohio 43228-0518
(614) 274-6003 | (800) 222-2768
fax (614) 274-6899 | asnt.org

September 3, 2020

Mr James A Kretzler
KTA Tator Inc
115 Technology DR
Pittsburgh, PA 15275-1005

ASNT ID# 186946

Dear Mr James A Kretzler:

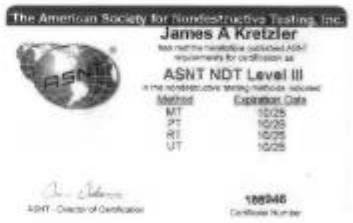
This letter is to inform you that you have successfully completed the requirements as set forth in the 'Renewal of NDT Level III Certificates Issued by ASNT'.

Please find attached your revised NDT Level III certification documentation, which consists of a wallet card, and new certificate. Review these materials for correctness, and contact me if you feel any are incorrect.

Your continued support of ASNT's NDT level III Certification Program is greatly appreciated.

Sincerely,

The Certification Department,
The American Society for Nondestructive Testing, Inc.


The American Society for Nondestructive Testing, Inc.
James A Kretzler
has met the qualifications and ASNT requirements for certification as
ASNT NDT Level III
in the nondestructive testing methods indicated.

Method	Expiration Date
MT	10/25
PT	10/25
RT	10/25
UT	10/25

ASNT - Director of Certification

186946
Certificate Number

SSPC PCS

January 9, 2020

Mr. Robert Lanterman, PCS
KTA-Tator, Inc.
115 Technology Drive
Pittsburgh PA 15275

Subject: **SSPC Protective Coating Specialist (PCS) Recertification**

Encl: Wallet ID Card, Certificate **Certification #: 2015-820-136**

Dear Mr. Lanterman,

This letter is to inform you that you have successfully completed your SSPC Protective Coatings Specialist (PCS) recertification.

This certification is awarded for a new term of four years and will expire on 12/31/2023.

At your four (4) year renewal date, you must submit documentation of 32 points of continuing education (CEU) to renew your certification.

Information on your next recertification will be mailed to you 6 months prior to expiration. In order to receive the information, you must notify SSPC of any change of address or employment. It is the responsibility of each certified individual to keep SSPC current on his or her contact information. SSPC will not be responsible for certifications that lapse because a reminder letter was sent to an incorrect address.

If you have any questions about your certification, please contact Silvia Palmieri at 412- 281-2331 Ext. 2201 or by e-mail at palmieri@sspc.org at your convenience.

You may also contact me directly at Ext. 2221 if you have any comments or concerns that you would like me to address. We appreciate your participation and are here to serve you.

Sincerely,

Jennifer Merck
Director of Training & Certification

SSPC PCS
Robert Lanterman
Certified:
Expires:
Certification ID#:
SSPC Protective Coatings Specialist

NACE INTERNATIONAL INSTITUTE

Certificate of Achievement

The NACE International Institute Recognizes

Robert Lanterman

As a Certified

NACE Certified Coating Inspector - Level 3

Executive Director
NACE International Institute

NACE certified

Expires
May 23, 2025

Cert No.13505

Certificate of Professional Development Hours

presented to

Blake Roussel

for attending the

Highway Safety Manual Workshop

12.0 PDHs

on

December 3-4, 2014 Baton Rouge, Louisiana

Authorized By

DOTD

Certificate of Attendance

presented to

Blake Roussel

for attending

Advanced Highway Safety Manual Training –
Interactive Highway Safety Design Model (IHSDM)

16 Professional Development Hours

June 5-6, 2018

Baton Rouge, Louisiana

Authorized Instructor

DOTD

Jesse Tisdale, PE


The American Traffic Safety Services Association

Hereby recognizes that

Jesse Tisdale

has attended

Traffic Control Technician-LA State Specific

Training Course

5/21/2019 to 5/21/2019
Date

Baton Rouge, LA
Location

ATSSA

Training & Products Dept. Director

President, CEO


The American Traffic Safety Services Association

Hereby recognizes that

Jesse Tisdale

has attended

Traffic Control Supervisor-LA State Specific

Training Course

5/22/2019 to 5/23/2019
Date

Baton Rouge, LA
Location

ATSSA

Training & Products Dept. Director

President, CEO

Adam Fields, PE

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Adam Fields
has attended
Traffic Control Technician-LA State Specific
Training Course

6/29/2021 to 6/29/2025
Training Valid Through

Baton Rouge, LA
Location

Director of Training

President, CEO

ATSSA

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Adam Fields
has attended
Traffic Control Supervisor-LA State Specific
Training Course

7/1/2021 to 7/2/2025
Training Valid Through

Baton Rouge, LA
Location

Director of Training

President, CEO

ATSSA

The American Traffic Safety Services Association

Hereby recognizes that

Jared Blohowiak

has attended

Traffic Control Supervisor-LA State Specific

Training Course

5/22/2019 to 5/23/2019
Date

Baton Rouge, LA
Location

ATSSA

Training & Products Dept. Director

President, CEO

The American Traffic Safety Services Association

Hereby recognizes that

Jared Blohowiak

has attended

Traffic Control Technician-LA State Specific

Training Course

5/21/2019 to 5/21/2019
Date

Baton Rouge, LA
Location

ATSSA

Training & Products Dept. Director

President, CEO

Kayla Lafitteau, EI

LOUISIANA ASSOCIATED GENERAL CONTRACTORS, INC.
666 North Street – Baton Rouge, LA 70802
Phone: 225/344-0432 * Fax: 225/344-0458
www.lagc.org

October 21, 2020

To Whom It May Concern,

This is to verify that the below listed employee of Stanley Consultants has successfully completed LADOTD required ATSSA Traffic Control Training.

ATSSA Traffic Control Technician Training – Aug. 4, 2020 – Kayla LaFitteau

ATSSA Traffic Control Supervisor Training – Aug. 5-6, 2020 – Kayla LaFitteau

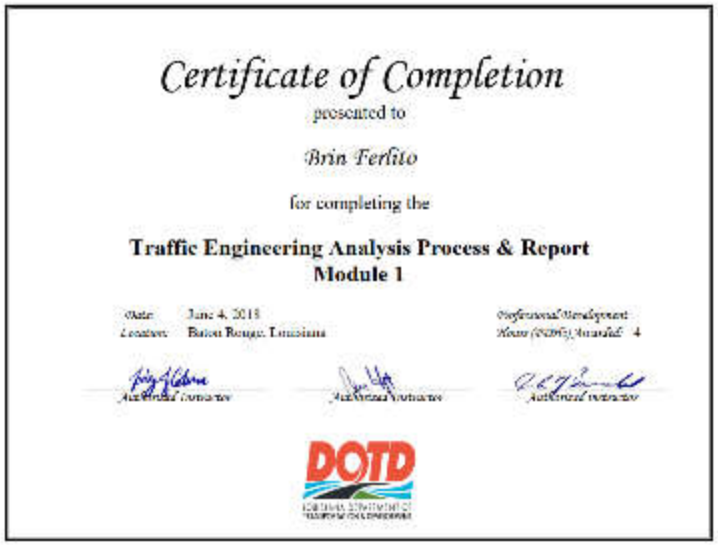
This letter will serve as temporary proof of training until above listed employees receive their official certificates from American Traffic Safety Services Association (ATSSA).

If there are any questions regarding this issue, please contact Mr. Barry Lacy, P.E. of LADOTD at Headquarters in Baton Rouge, LA (225-379-1584) or Michael Demouy at the above captioned address.

Best Regards,

Michael Demouy – LAGC Manager

Sheelagh Brin Ferlito PE, PTOE VECTURA CONSULTING SERVICES, LLC



Certificate of Completion

presented to

Brin Ferlito

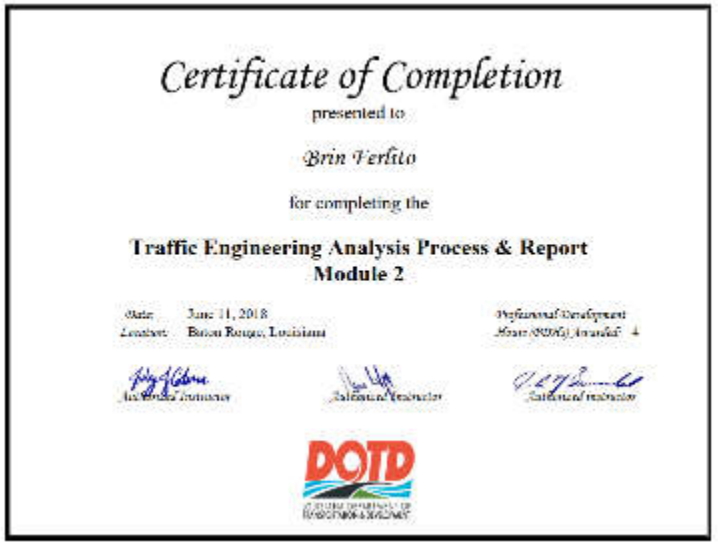
for completing the

Traffic Engineering Analysis Process & Report
Module 1

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

Professional Development Hours (PDH) Awarded: 4

DOTD



Certificate of Completion

presented to

Brin Ferlito

for completing the

Traffic Engineering Analysis Process & Report
Module 2

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

Professional Development Hours (PDH) Awarded: 4

DOTD

Certificate of Completion

presented to

Brin Ferlito

for completing the

Traffic Engineering Analysis Process & Report
Module 3

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

Professional Development Hours (PDH) Awarded: 3

DOTD

SDR

The American Traffic Safety Services Association

Hereby recognizes that

Brin Ferlito

has attended

Traffic Control Supervisor Refresher-LA State Specific Training Course

4/13/18 to 4/13/18
Date

Baton Rouge, LA
Location

Training & Products Dept. Director

President, CEO

ATSSA

AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION

SLOW

This is to affirm that

Brin Ferlito

has satisfied the requirements to be designated as a

CERTIFIED FLAGGER

Expiration Date 4/9/22 State Issued in LA

Instructor Signature

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

TRAFFIC DOC, L.L.C.
Thomas L. Ervin
269 Evangeline Drive
Mandeville, LA 70471
985.373.0534 Mobile

May 4, 2022

To Whom It May Concern,

This is to certify that the below listed employees of Vector Consulting Services, LLC have successfully completed traffic control training courses presented by the American Traffic Safety Services Association (ATSSA) and in accordance with the requirements of the Louisiana Department of Transportation & Development (DOTD).

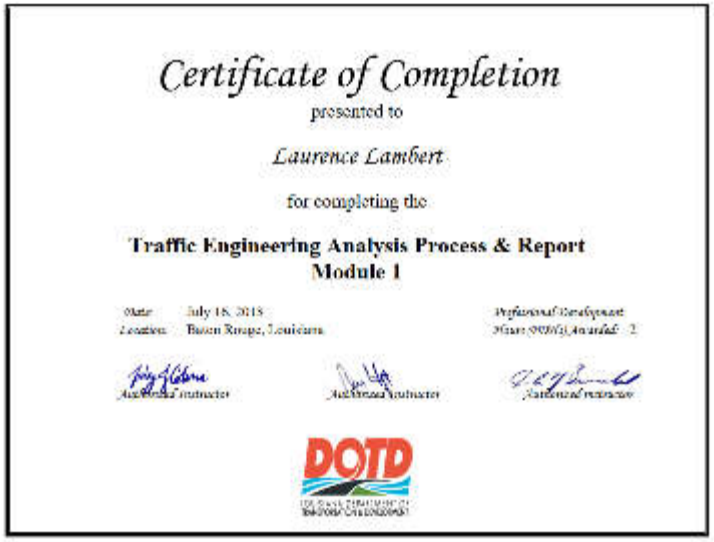
LA Specific Traffic Control Supervisor Refresher (TCS REFRESHER) – Baton Rouge, LA – 04-27/28-22 – Sheelagh "Brin" Ferlito & Laurance Lambert

This letter will serve as temporary proof of training until the above listed employees receive their official course completion certificates from the American Traffic Safety Services Association (ATSSA). This letter will expire 90 days from the date of issue. Should there be any questions concerning this matter, please contact the undersigned at the above captioned address.

Yours in safety,

Thomas L. Ervin, ATSSA Master Instructor

Laurence Lambert PE, PTOE VECTURA CONSULTING SERVICES, LLC



Certificate of Completion

presented to

Laurence Lambert

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date July 18, 2018
Location Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded 2

Authorized Instructor Authorized Instructor Authorized Instructor

DOTD

Certificate of Completion

presented to

Laurence Lambert

for completing the

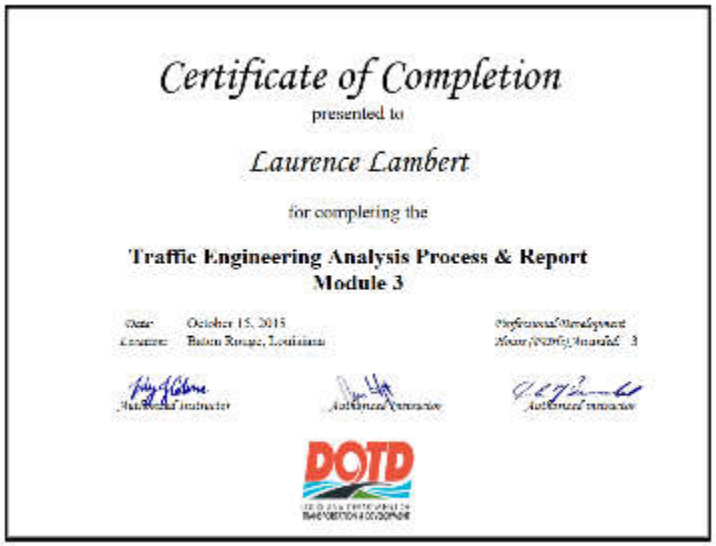
Traffic Engineering Analysis Process & Report
Module 2

Date July 23, 2018
Location Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded 3

Authorized Instructor Authorized Instructor Authorized Instructor

DOTD



Certificate of Completion

presented to

Laurence Lambert

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date October 15, 2015
Location Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded 3

Authorized Instructor Authorized Instructor Authorized Instructor

DOTD

SDR

The American Traffic Safety Services Association

Hereby recognizes that

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

07/27/2018
Date
Baton Rouge, LA
Location

ATSSA
SAFER ROADS SAVE LIVES

Training & Products Dept. Director

President, CEO

ATSSA
SAFER ROADS SAVE LIVES

AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION

SLOW

This is to affirm that
LAURENCE LAMBERT
has satisfied the requirements
to be designated as a
CERTIFIED FLAGGER

Expiration Date 7/25/2022 State Issued in LA

Instructor Signature

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

TRAFFIC DOC, L.L.C.
Thomas L. Ervin
269 Evangeline Drive
Mandeville, LA 70471
985.373.0534 Mobile

May 4, 2022

To Whom It May Concern,

This is to certify that the below listed employees of Vector Consulting Services, LLC have successfully completed traffic control training courses presented by the American Traffic Safety Services Association (ATSSA) and in accordance with the requirements of the Louisiana Department of Transportation & Development (DOTD).

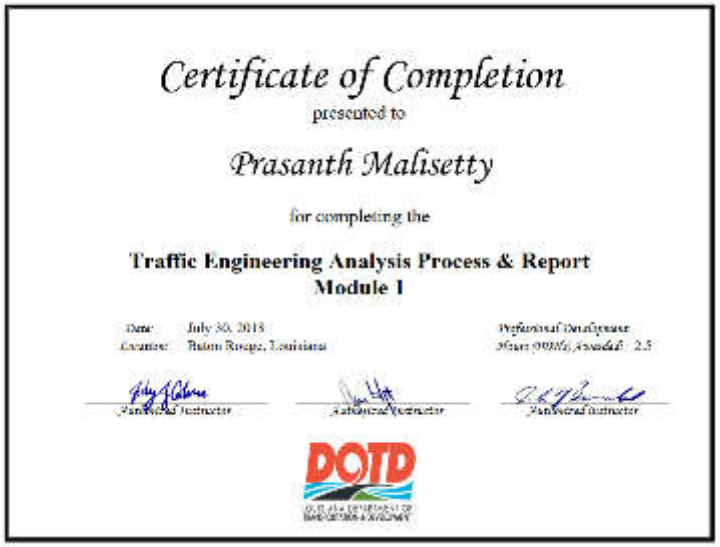
LA Specific Traffic Control Supervisor Refresher (TCS REFRESHER) – Baton Rouge, LA – 04-27/28-22 – Sheelagh "Brin" Ferlito & Laurance Lambert

This letter will serve as temporary proof of training until the above listed employees receive their official course completion certificates from the American Traffic Safety Services Association (ATSSA). This letter will expire 90 days from the date of issue. Should there be any questions concerning this matter, please contact the undersigned at the above captioned address.

Yours in safety,

Thomas L. Ervin, ATSSA Master Instructor

Prasanth Malisetty PE, PTOE, PTP VECTURA CONSULTING SERVICES, LLC



Certificate of Completion

presented to

Prasanth Malisetty

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: July 30, 2015
Location: Baton Rouge, Louisiana

Professional Development Hours (PDH) Awarded: 2.5

DOTD

Certificate of Completion

presented to

Prasanth Malisetty

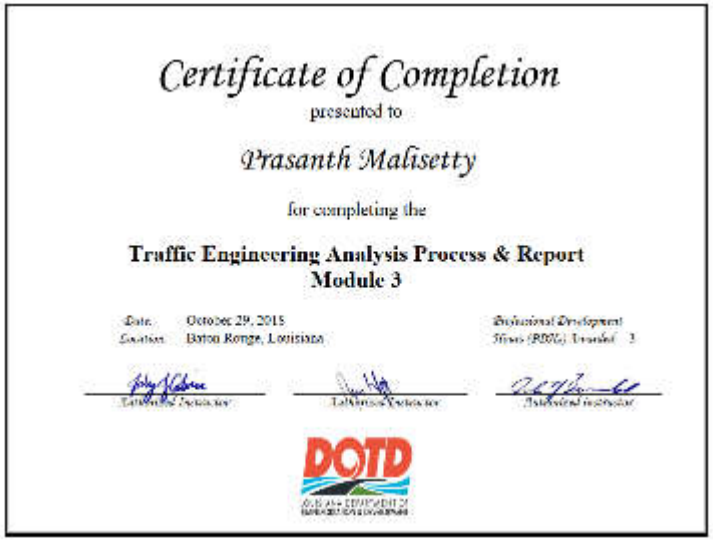
for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: August 6, 2015
Location: Baton Rouge, Louisiana

Professional Development Hours (PDH) Awarded: 3

DOTD



Certificate of Completion

presented to

Prasanth Malisetty

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: October 29, 2015
Location: Baton Rouge, Louisiana

Professional Development Hours (PDH) Awarded: 3

DOTD

Certificate of Training

this certifies that

Prasanth Malisetty

has successfully completed the training program requirements for

Online Flagger Certification Training Course

Awarded on this 29th *day of* January 2020

SDR

The American Traffic Safety Services Association

Hereby recognizes that

Prasanth Malisetty

has attended

Traffic Control Technician-LA State Specific

Training Course

11/12/2019 to 11/12/2019

Date

Baton Rouge, LA

Location

ATSSA

Training & Products Dept. Director

President, CEO

The American Traffic Safety Services Association

Hereby recognizes that

Prasanth Malisetty

has attended

Traffic Control Supervisor-LA State Specific

Training Course

11/13/2019 to 11/14/2019

Date

Baton Rouge, LA

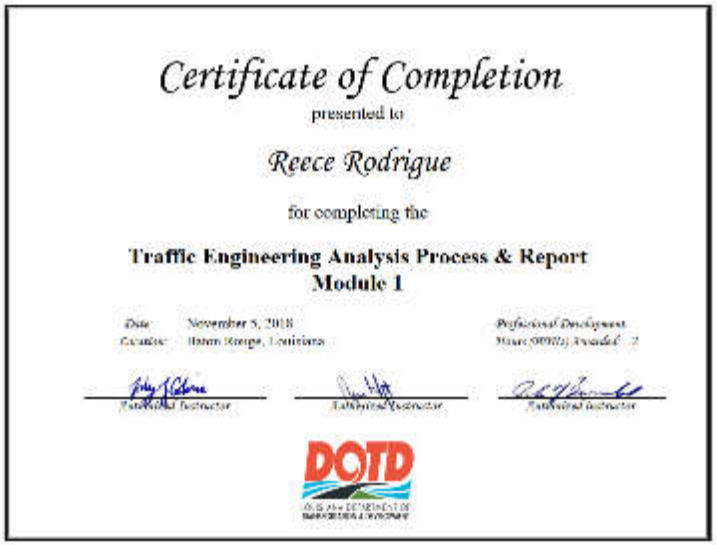
Location

ATSSA

Training & Products Dept. Director

President, CEO

Reece Rodrigue PE, PTOE VECTURA CONSULTING SERVICES, LLC



Certificate of Completion

presented to

Reece Rodrigue

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: November 5, 2018
Location: Baton Rouge, Louisiana
Professional Development Hours (PDHs) Awarded: 2

DOTD

Certificate of Completion

presented to

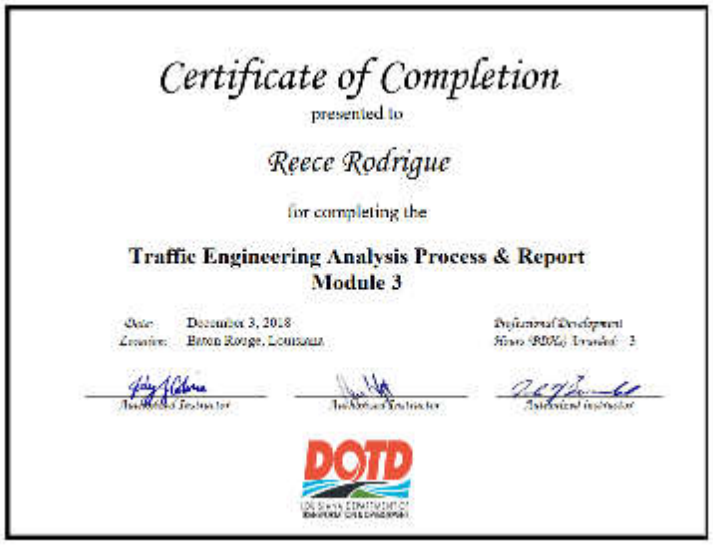
Reece Rodrigue

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: November 26, 2018
Location: Baton Rouge, Louisiana
Professional Development Hours (PDHs) Awarded: 3.5

DOTD



Certificate of Completion

presented to

Reece Rodrigue

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: December 3, 2018
Location: Baton Rouge, Louisiana
Professional Development Hours (PDHs) Awarded: 3

DOTD

SDR

Certificate of Training

this certifies that

Reece Rodrigue

has successfully completed the training program requirements for

ATSSA Online Flagger Certification Training Course

Awarded on this 24th day of September 2020

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Reece Rodrigue

has attended

Traffic Control Supervisor-LA State Specific

Training Course

9/4/2019 to 9/5/2019
Date

Baton Rouge, LA
Location

Vice President of Member Services

President, CEO

ATSSA

Megan Bourgeois, PE

ATSSA Traffic Control Supervisor

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Megan Bourgeois

has attended

Traffic Control Supervisor Refresher-LA State Specific

Training Course

8/7/2020 to 8/7/2020
Date

Vice President of Education and Technical Services

Baton Rouge, LA
Location

President, CEO

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

ATSSA American Traffic Safety Services Association ATSSA.com

Robertt Jewell, PE

Ardaman & Associates, Inc.

PDCA

This documents that

Robert Edwin Jewell
Ardaman & Assoc

has on February 17, 2011 achieved the rank of

ADVANCED

on the **Dynamic Measurement and Analysis Proficiency Test.**

The individual identified on this document demonstrated to the degree granted above an understanding of theory, data quality evaluation, interpretation and signal matching for high strain dynamic testing of deep foundations. ***It is recommended*** **that individuals at the Advanced level seek Master or Expert levels through additional study within four years of the date of this document.**

The ability of the individual named to provide appropriate knowledge and advice on a specific project is not implied or warranted by the Pile Driving Contractors Association or Pile Dynamics, Inc. The Pile Driving Contractors Association or Pile Dynamics, Inc. assumes no liability for foundation testing and analysis work performed by the bearer of this certificate.

Steven A. Hall, Executive Director
Pile Driving Contractors Association

Garland Likins, President
Pile Dynamics, Inc

ATSSA Traffic Control Supervisor

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Robert Jewell
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

9/25/2020 to 9/25/2020
Date

Vice President of Member Services

Baton Rouge, LA
Location

President, CEO

ATSSA

PDCA

PDCA

Pile Dynamics, Inc.

This documents that

Robert Rousset
Ardaman & Assoc

has on February 17, 2011 achieved the rank of

INTERMEDIATE

on the **Dynamic Measurement and Analysis Proficiency Test.**

The individual identified on this document demonstrated to the degree granted above an understanding of theory, data quality evaluation, interpretation and signal matching for high strain dynamic testing of deep foundations. ***It is recommended* that individuals at the Intermediate level seek Advanced, Master or Expert levels through additional study within three years of the date of this document.**

The ability of the individual named to provide appropriate knowledge and advice on a specific project is not implied or warranted by the Pile Driving Contractors Association or Pile Dynamics, Inc. The Pile Driving Contractors Association or Pile Dynamics, Inc. assumes no liability for foundation testing and analysis work performed by the bearer of this certificate.

Steven A. Hall, Executive Director
Pile Driving Contractors Association

Garland Likins, President
Pile Dynamics, Inc

Suna Adam

NEPA Training

Certificate of Attendance

presented to

Suna Adam Knaus

for attending the

National Environmental Policy Act (NEPA) and Transportation decision Making

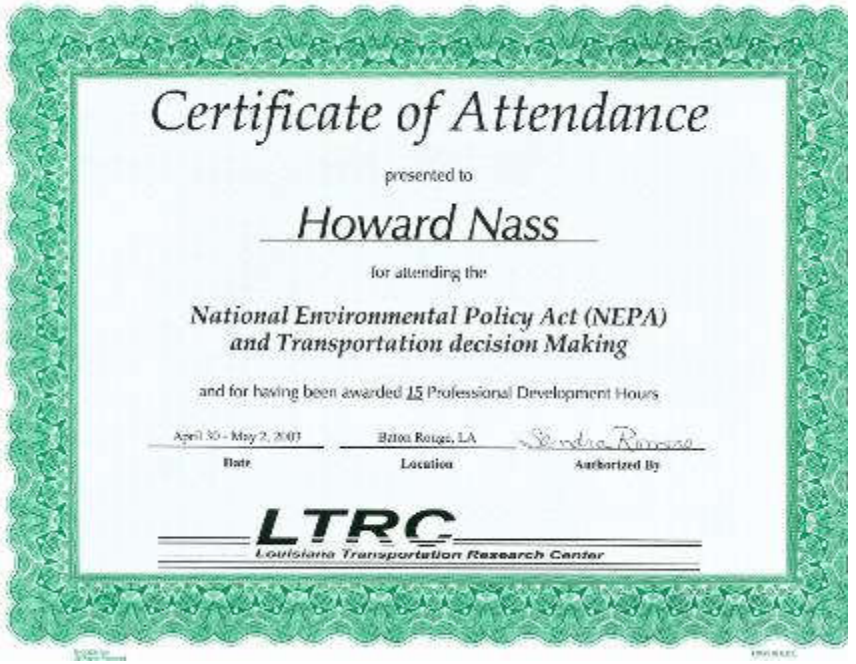
and for having been awarded 15 Professional Development Hours

April 30 - May 2, 2003 (Date) | Baton Rouge, LA (Location) | Sandra Ramos (Authorized By)

LTRC Louisiana Transportation Research Center

Howard Nass

NEPA Training



Certificate of Attendance

presented to

Howard Nass

for attending the

National Environmental Policy Act (NEPA) and Transportation decision Making

and for having been awarded 15 Professional Development Hours

April 30 - May 2, 2003 (Date) | Baton Rouge, LA (Location) | Sandra Ramos (Authorized By)

LTRC Louisiana Transportation Research Center

John Lindemuth

Section 106 Certificate

ATSSA Traffic Control Supervisor

21. QA/QC Plan and/or Work Plan:

If the advertisement requires submission of a QA/QC plan or Work plan, include them here. Otherwise, leave this section blank.

See QC/QA Plan after Section 23

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 (as registered with Louisiana's Secretary of State)		Address	Point of Contact and email address	Phone Number
TranSystems Corporation		3230 W Commercial Blvd. Fort Lauderdale, FL 33309	Steven Shaup, PE sashaup@transystems.com	(954) 653-4700
M&N: Moffatt & Nichol, Inc.		301 Main Street, Suite 800 Baton Rouge, LA, 70801	Chace Hulon, PE chulon@moffattnichol.com	(225) 610-1932
Fort & Tablada, Inc.		9107 Interline Avenue Baton Rouge, LA 70809	Russell Coco, Jr., PE jcoco@forteandtablada.com	(225) 927-9321
KTA: KTA-Tator, Inc.		145 Enterprise Drive Pittsburgh, PA 15275	Robert S. Lanterman rlanterman@kta.com	(412) 303-9407
Stanley Consultants, Inc.		721 Government Street Baton Rouge, LA 70802	Blake S. Roussel, P.E., PMP RousselBlake@stanleygroup.com	(225) 936-1604
VECTURA Consulting Services, LLC		8000 Innovation Park Dr. Baton Rouge, LA 70820	Brin Ferlito, PE, PTOE bferlito@vecturacs.com	(225) 223-6685
Ardaman & Associates, Inc.		316 Highlandia Drive Baton Rouge, LA 70810	Megan Mourgeois, PE mbourgeois@ardaman.com	(225) 752-4790
Gulf South Research Corporation		8081 Innovation Park Drive Baton Rouge, LA 70820	Suna Adam Suna@gsrcorp.com	(225) 757-8088

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.

SDR Engineering Consultants, Inc.

CONTRACTS NOS.

4400023921, 4400023922, 4400023923, 4400024185, 4400024186, 4400024187, 4400024188, AND 4400024189

IDIQ CONTRACTS FOR BRIDGE PRESERVATION STATEWIDE

QUALITY CONTROL PLAN

REV. 00

Submitted to:

Louisiana Department of Transportation and Development

Submitted by: _____ Date: 5/6/2022
Hatem Seliem, PhD, PE, PMP Project Manager
SDR Engineering Consultants, Inc.

Approved by: _____ Date: 5/6/2022
Mohsen Shahawy, PhD, PE, Quality Assurance Manager
SDR Engineering Consultants, Inc.

May 2022

TABLE OF CONTENTS

List of Appendices

1.0 INTRODUCTION

This Quality Control Plan (QCP) for the IDIQ Bridge preservation Statewide Contracts 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 QCP 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 QCP 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 PROJECT DESCRIPTION

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

Task 1: Bridge Design Services

General Bridge Engineering Services

Bridge design services shall be provided for fixed and movable bridges. Bridge types may include, but are not limited to, new bridges, bridge replacements, bridge rehabilitation, bridge preventive maintenance and repair, and roadway lighting. Bridge engineering services may include the following:

- Bridge/structural inspection and evaluation of existing bridges or other structures (sign trusses, fender systems, etc.). Associated reports shall be provided as required
- As-designed, as-built, and condition bridge ratings.
- Design peer review of developed plans or conceptual designs to verify concept, constructability, and accuracy of designs along with associated reports, conclusions, calculations, and recommendations as needed.
- Construction engineering support including construction drawing review, shop drawing review, request for information support, contractor proposals, etc.

Sampling, Instrumentation and Non-destructive Testing

These services may include the following:

Sampling

- Collection of samples.

- Evaluation of protective coating material samples for determination of compatibility with proposed coatings, analysis for heavy metals, proper procedures for treatment, handling, disposal of waste, etc.

Instrumentation

- Design of instrumentation plans. Installation of instrumentation, data acquisition, analysis, and evaluation of structure based on instrumentation plan.
- Provision and installation of instrumentation, including all materials required to mount the instrumentation.
- Provision of data acquisition systems, software updates, power supplies, communication to data servers, data hosting services, maintenance, and data access to DOTD.
- Calibration services for instrumentation systems and sensors.
- Maintenance services to repair and/or replace sensors, data acquisition systems, and power supplies.
- Analysis and evaluation of accumulated data and final assessments and development of corresponding reports based on data and associated calculations.

Non-destructive Testing

- Proof/diagnostic loading
- Estimation of concrete strength.
- Assessment of reinforcement condition, cover, location, and diameter.
- Detection of cracks, voids, and delamination in concrete.
- Assessment of steel member condition.

Task 2: Bridge inspection Services

Consultant shall provide services to perform Statewide NBIS In-Depth Inspections of complex structures. The services may include

- Detailed in-depth field inspection on all bridge components, including an element level inspection. An NBIS underwater bridge inspection may be required for submerged elements.
- Assessment of the coating system, conducted by a certified SSPC Protective Coating Specialist or a certified NACE Bridge Coating Inspector.
- In-depth inspection report outlining recommended repairs, rehabilitation, and corrections.

Task 3: Road Design and Traffic Services

Consultant shall provide services including the following:

- Preliminary and final roadway design and plan development.
- Hydraulic analysis and design.
- Traffic engineering, traffic control design, and data collection.
- Transportation Management Plan (TMP) development.

Task 4: Geotechnical Services

Consultant shall provide services including the following:

- Geotechnical services including investigations, analysis and design shall be provided by the consultant.
- Geotechnical field investigations including both shallow and deep soil borings.
- Geotechnical laboratory testing and analysis.
- Preparation of soil boring logs.
- Geotechnical analysis and design based on obtained data or data furnished by the DOTD.
- Construction related engineering services.

Task 5: Surveying and Title Work Services

Consultant shall provide surveying and title work services necessary to perform topographic, and boundary surveying, develop right-of-way maps, and provide other existing site data. The services shall include:

- Topographic surveying, 3D laser scanning, and underwater acoustical imaging.
- Property and boundary surveying.
- Property title work including title research and reports.
- Construction related surveying services.

Task 6: Environmental and Permitting Services

Consultant shall provide environmental and permitting services necessary to obtain project permits. Required permits may include, but are not limited to, the following:

- Coastal Use permits (CUP) from the LA Department of Natural Resources
- Wetland permits (404 and Nationwide) and Section 10 permits from the US Army Corps of Engineers
- 408 permissions from the US Army Corps of Engineers
- Water Quality Certification from the LA Department of Environmental Quality
- Scenic Stream permits from the LA Department of Wildlife and Fisheries
- Bridge permits from the US Coast Guard
- Levee permits from various levee boards

1.2 PROJECT GOVERNING STANDARDS AND CRITERIA

The Scope of Services requires that this contract be in compliance with AASHTO LRFD Bridge Design Specifications, 9th Edition with 2021 Interim Revisions, Manual for Bridge Evaluation, 2nd Edition with 2016 Interim Revisions, and the Louisiana Department of Transportation and Development's guidelines, manuals and standards, as applicable to the required services.

1.3 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.

1.4 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.

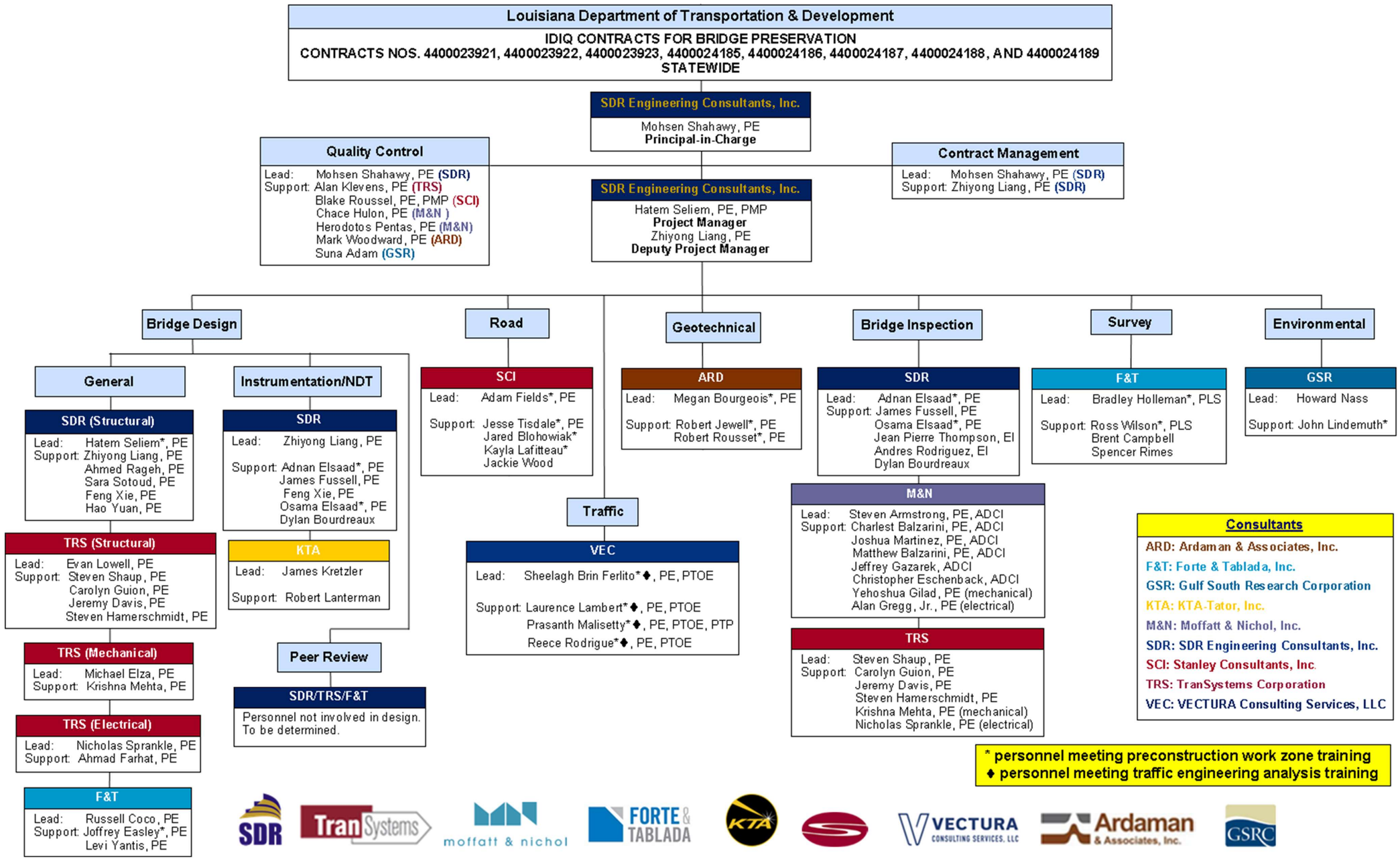


Figure 1: Organizational Chart

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.
- Hatem Seliem, 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:

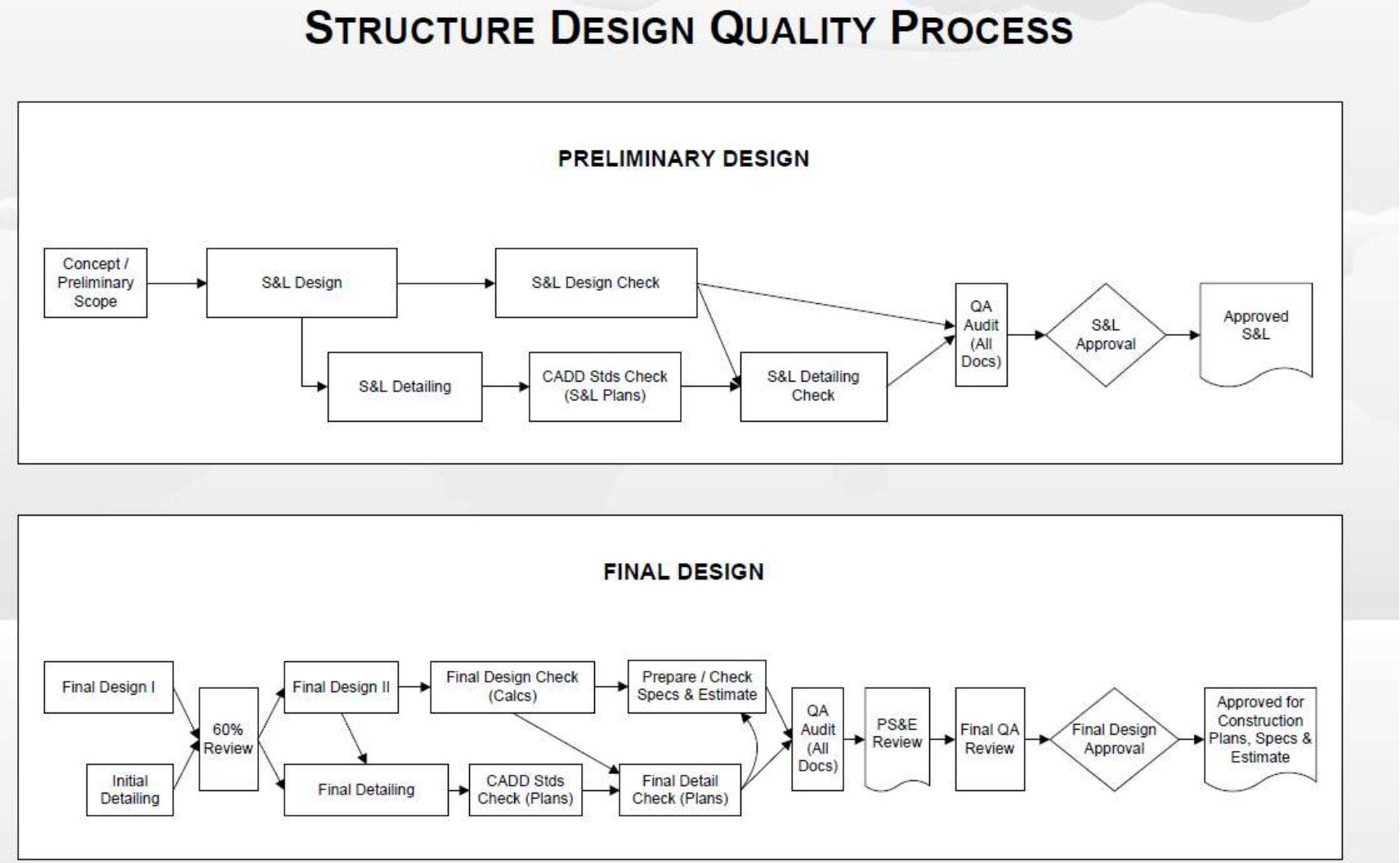
DESIGN REVIEW REQUIREMENTS								
	REVIEW TYPE							
	SITUATION & LAYOUT CHECK		60% REVIEW	CADD STDS CHECK	FINAL DESIGN CHECK			FINAL QA REVIEW
STRUCTURE TYPE	DESIGN	DRWG	DESIGN	DRWG	DESIGN	DRWG	SPECS & EST	ALL DOCS
Bridge	X	X	X	X	X	X	X	X
Drainage Structures	X	X		X	X	X	X	X
Retaining Wall	X	X		X	X	X	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



QC COLOR CODE

REMEMBER TO USE SIGN-OFF STAMP!

ORIGINATOR
(DESIGNER)

Typed Text, Blueline Prints, Calculations, Black/White Copy

NOT IN: RED, YELLOW, OR GREEN

CHECKER
(OTHER THAN DESIGNER)

Yellow for Correct

Red for "Corections"

"Additions or Deletions" changes

Use blue for notes to Originator

BACKCHECKER
(DESIGNER)

Green Check Mark for Agreement

"Corections"

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

Ok

"Additions or Deletions" changes

UPDATER
(ORIGINATOR/ DRAFTER)

Green Encirclement when Updated

"Corections"

RECHECKER
(OTHER THAN DESIGNER)

Yellow over Red and Green to indicate updated correctly

Ok

"Additions or Deletions" changes

REVIEWERS
(NOT INVOLVED IN ACTIVIITES 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.

DESIGN APPROVAL REQUIREMENTS		
	APPROVAL TYPE	
STRUCTURE TYPE	*SITUATION & LAYOUT*	*FINAL DESIGN*
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

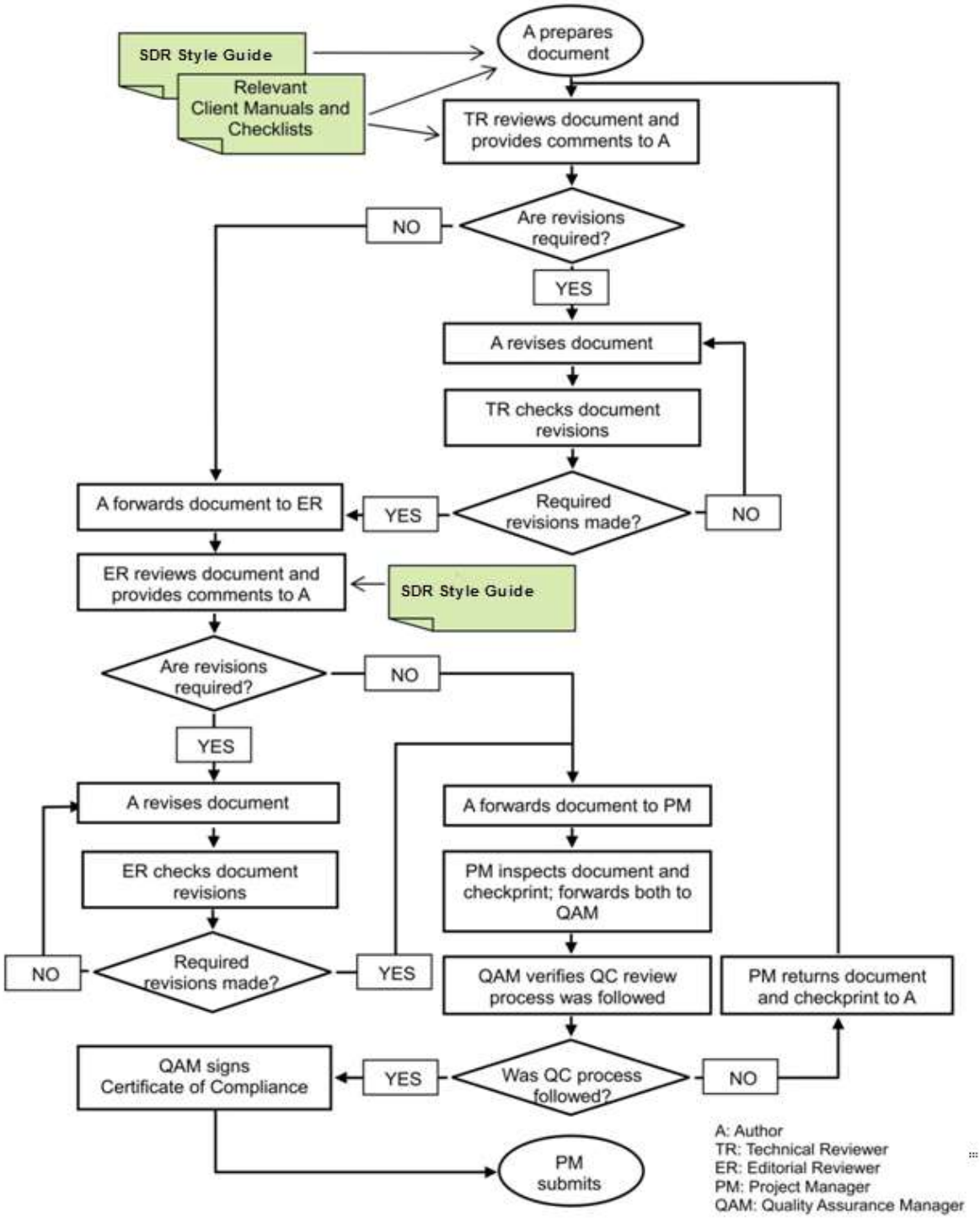


Figure 4: Quality Control Form for Documents

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

			NAME	INITIALS	DATE
TECHNICAL REVIEW	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

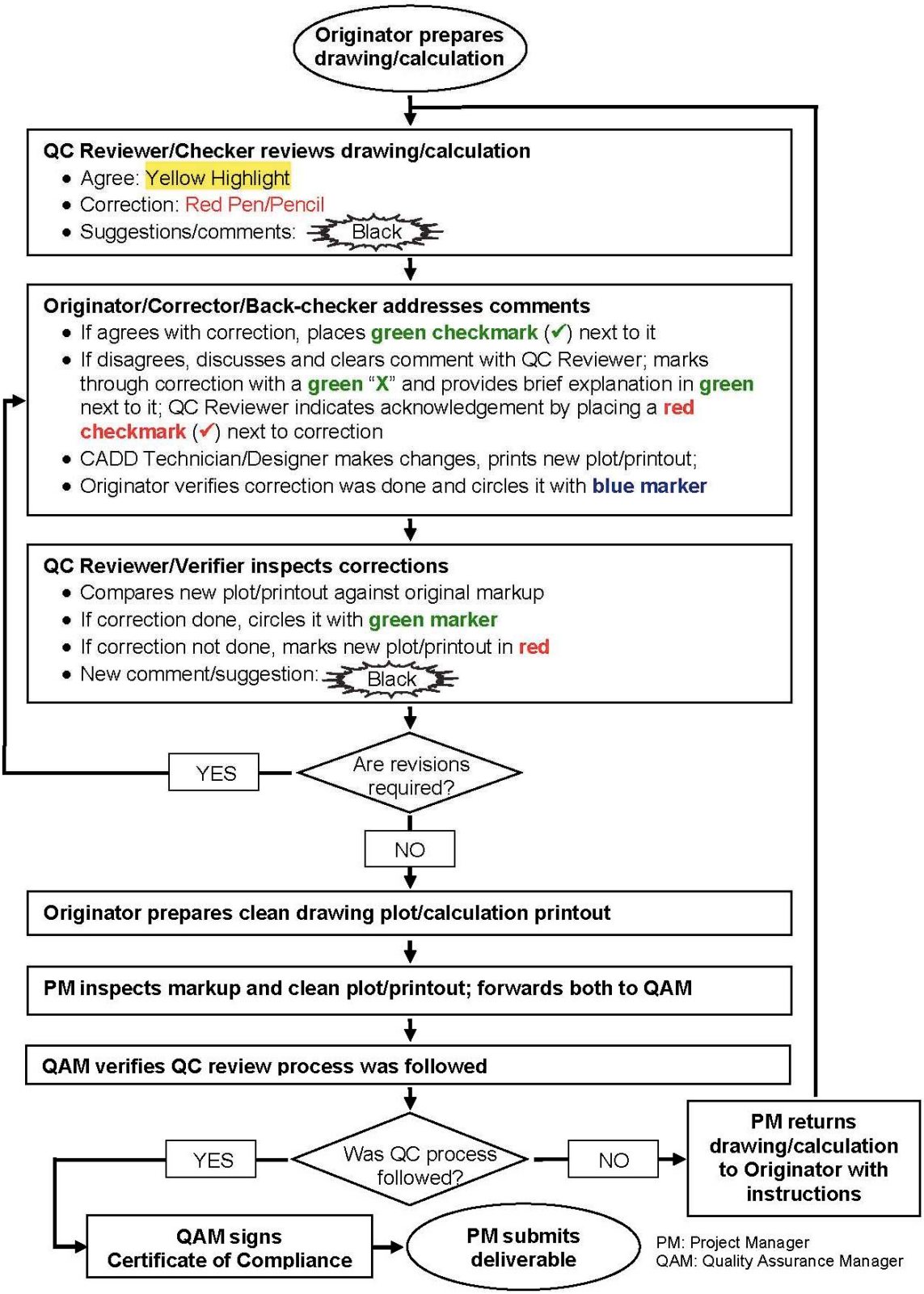


Figure 6: Drawing and Calculations QC Stamp

(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.

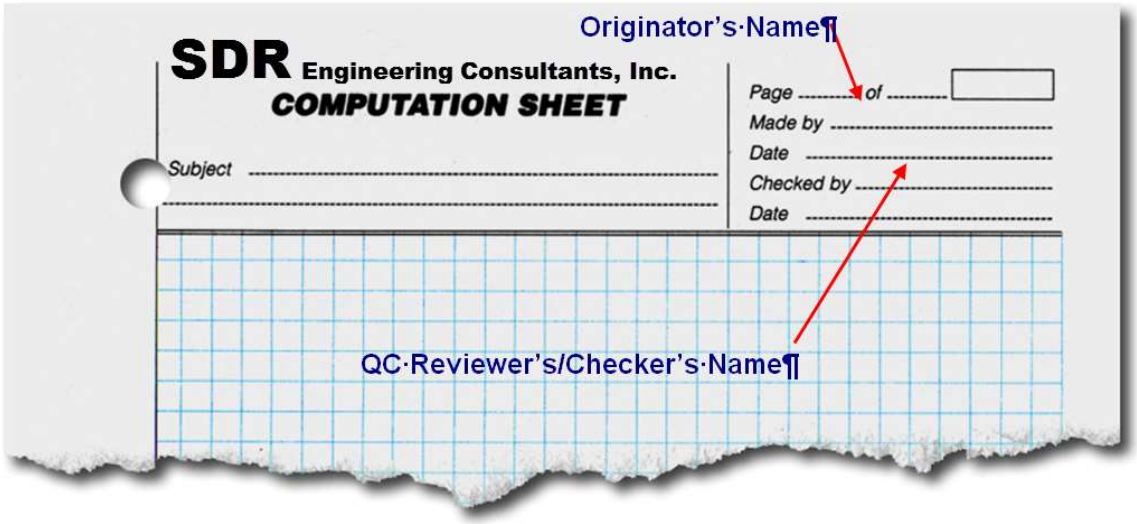
As a final check, the QAM will verify that the QC review process has been followed by inspecting the checkprint, the QC stamp, and the submittal drawing(s). If he/she is satisfied that the process has been followed, the QAM will also sign the Certificate of Compliance, which will be submitted by the 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



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.

Date: _____

Signature:

_____

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:

Inc.	N/A	TASK	PHASE
☐	☐	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
- ☐ Special Provisions
- ☐ Engineer's Estimate
- ☐ Electronic Design Files (MicroStation)
- ☐ Completed Design Certifications Forms
- ☐ Final Bridge Design Calculations
- ☐ Independent Review Documentation (when required)
- ☐ 60% Design Review Checklist
- ☐ Design Criteria Summary
- ☐ Approved Design Exceptions
- ☐ Computer Design Software List
- ☐ Final Seismic Strategy Report
- ☐ Bridge Load Rating Report
- ☐ Geotechnical Report
- ☐ Previous Review Comments With Response & Dispositions

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)

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.

Print Name: _____ Date: _____

Design Firm: _____

PE Stamp (signed & dated)

DESIGN QC CERTIFICATION

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.

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 calculations 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)

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

PAGE 1 OF 1

SDR STRUCTURES COMMENTS AND RESOLUTION SHEET

CODES:
A. ACCEPT COMMENT—WILL BE CORRECTED, ADDED, OR CLARIFIED.
B. DESIGNER WILL EVALUATE.
C. DELETE COMMENT
D. DEPARTMENT TO EVALUATE.

DOCUMENT CONTROL NUMBER: | REVIEW TYPE: | REVIEWER(S): | DATE:

DESCRIPTION: | DESIGNER: | DISCIPLINE: STRUCTURES | CRM:

ITEM NO.	DWG. NO.(1)	COMMENTS	CODE(2)	RESPONSE(2)	FINAL DISPOSITION(3)
1					

(1) Indicate drawing no./page no. or use "G" for general comment.
(2) To be filled out by Designer.
(3) To be determined in subsequent comment resolution meeting/discussion (list date).

Note: The intended use of this form is to provide a means for the Department to comment on submitted structural design plans and calculations. All comments must be satisfactorily resolved and incorporated into the contract documents before the design can be approved.

QUALITY PLAN\STRUCTURES COMMENT FORM_ 4/04/11

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-Builts

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

The following items are completed and attached:

- ☐ 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 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.

Signature: _____ Date _____

Design Firm: _____

APPROVAL

The submitted Final Design Plans, Specifications and Estimate for the specified structure are Approved for Construction.

Signature: _____ Date: _____

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.

CERTIFICATE OF COMPLIANCE

CERTIFICATE OF COMPLIANCE

TO: LADOTD Project Manager
Project Manager
LADOTD

DATE: Month XX, Year XXXX

RE: QUALITY ASSURANCE REVIEW

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

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